

# Indifferent Reactions: Regulatory Responses to the Apathy of Others

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How do people react to indifference when they see it in others? In 5 studies we examined how people may respond to it as a cue to disengage when they lack sufficient commitment to a goal or task themselves. Across the studies, participants were either exposed to cues implying an absence of motivation or not, after which their own goal-directed motivation was assessed. Results indicated that participants were likely to behaviorally assimilate indifference when it was directed toward a relevant goal (Studies 1 and 3) and they were not very committed to the goal (Studies 2a–b, 3, 5). Corresponding self-report data suggested that exposure to indifference generally discouraged and obstructed goal pursuit in the participants' minds (Studies 4–5). However, participants overcame the indifference when their commitment to the goal was chronically high or experimentally heightened, with the corresponding self-report data suggesting a process of increased monitoring and counteraction. In these studies, we also distinguished goal commitment from goal accessibility: Whereas a manipulation of goal commitment seemed to facilitate overcoming indifference (Study 5), a manipulation of goal accessibility did not (Study 4). In sum, a potentially insidious feature of indifference may be that people assimilate it not because they want to but because it exploits their preexisting doubts about the goal or their general openness to disengaging from it.

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In his speech “The Perils of Indifference,” Nobel laureate Elie Wiesel (1999) openly reflected on the sins of indifference across the 20th century. In doing so, he also started to outline the subtle yet demoralizing influence indifference can have on those who encounter it. The sentiment pertained to extreme circumstances, but it may have underscored a fundamental issue regarding the implicit influence of indifference: that those who are indifferent to

our causes often pose a greater challenge than those who actively oppose them. Even in the context of everyday life, we could be unsettled by others' indifference to the things we value. There are long-held assumptions about indifference being obstructive, discouraging, and difficult to overcome. For instance, William James said that when it comes to teaching, “a bad reaction is better than no reaction at all” (1899, p. 39); it can be hard to move forward when others are simply indifferent.

It may be common to encounter indifference, but little is known about how individuals might differ in their reactions to it and whether there are factors that allow them to overcome it. Although recent studies have documented how one can be encouraged by others' motivation for goals, it is unclear what happens when individuals perceive an absence of motivation in others. In the present work, we consider how individuals perceive and respond to indifference. In doing so, we hope to specify the distinct challenges of perceiving an absence of motivation and to clarify when individuals respond to it as a cue to disengage and when they do not.

Our analysis starts by considering how individuals could perceive an absence of motivation. People may be generally disinclined to abandon goals (e.g., Kuhl, 2000; Wrosch, Scheier, Miller, Schulz, & Carver, 2003), so it is not clear why or whether people would be looking for such cues in the environment. Yet, people also tend to interpret environmental cues in motivationally self-relevant terms (Bargh, Green, & Fitzsimons, 2008; Kawada, Oettingen, Gollwitzer, & Bargh, 2004), so they may be sensitive to

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indifference when it is directed toward a goal they are currently pursuing or about to pursue.

Our analysis continues by considering whether indifference can guide self-regulation; that is, whether it could signal that one should regulate one's efforts or just stop trying altogether. This may be especially true if one is already open to the idea of disengaging. We will specifically test whether indifference represents an implicit cue to disengage and thus has motivationally contagious qualities. Although indifference may not be directed at oneself per se (or anyone else, for that matter), one may nevertheless interpret it as a form of goal feedback. Yet, unlike emotional feedback from others, indifference is more impersonal and descriptive than injunctive; it is more of an absence of positive feedback than the presence of negative feedback. The impact of perceiving indifference may, therefore, depend on the motivational context in which it is perceived—including one's own openness to the idea of disengaging from whatever goal or task it is directed toward. We will explore the idea that perceivers are likely to assimilate indifference when disengaging is already a distinct possibility for them.

### Indifference: Not Seeing It

We define indifference as a perceived lack or loss of motivation toward some goal or goal-related task (e.g., Miceli & Castelfranchi, 2000). For the purpose of this work, we treat it as synonymous to perceiving apathy in the sense that it is characterized by idleness and disengagement. The indifference could be real or it could exist only in the mind of the perceiver, and the motivational absence could be absolute or just relative to what the perceiver wants and expects to see. We distinguish indifference from reactive or aversive states that involve blatant motivations away from something (such as reactance or self-evaluation maintenance; Chartrand, Dalton, & Fitzsimons, 2007; Tesser, 1988). We also distinguish indifference from negative affect, which could instead signal a goal-related concern or a need to take action (Carver & Scheier, 1998). Indifference, as we define it here, refers only to an absence of motivation, and it corresponds with inaction.

Indifference is about the presence of an absence, and perceivers may draw upon situational as well as behavioral cues to infer it. This could mean that indifference is usually object oriented: Although not goal-directed per se, it is inferred in context to specific goals and tasks. We also assume that indifference can be inferred implicitly because its behavioral indicators may be rather universal (e.g., idleness, inactivity). This would suggest that indifference is perceived much like basic emotions are perceived; however, interpreting indifference may be inherently more challenging, as the absence of one particular motivation may look identical to the absence of another. Although indifference may be generally inferred from various behavioral cues, its goal relevance might have to be inferred from something else. The broader situational context, for example, could be what makes indifference meaningful. It is conceivable that the same behaviors could imply a lack of achievement motivation in one context (e.g., work or school) and a lack of prosocial motivation in another (see Leander & Shah, 2013; Wittenbrink, Judd, & Park, 2001, for more on the shaping role of context in social perception).

Perceivers can also be expected to interpret indifference through the lens of their own needs and commitments (Higgins, Rholes, & Jones, 1977; Kawada et al., 2004). For example, Leary and col-

leagues asked a sample of college students to imagine receiving a recommendation letter from a professor; they found that neutral appraisals from the professor undermined the students' affect and self-esteem almost as much as negative appraisals did (Leary, Haupt, Strausser, & Chokel, 1998). Accordingly, research in neuroscience suggests that people react to "neutral" goal feedback much as they react to negative feedback (in terms of event-related potentials), even if the feedback is unrelated to their own goal outcomes (Holroyd, Hajcak, & Larsen, 2006); the gist is that neutral feedback still implies an absence of positive feedback. Thus, perceivers may be sensitive to any incidental, goal-related cues representing the absence of something they are seeking from the environment.

Ultimately, mere exposure to indifference may suffice to discourage or obstruct goal striving in perceivers' minds. We anticipate that people might often interpret indifference as a cue to goal disengagement, even if they otherwise value the goal and want to pursue it. Note that we distinguish the potentially obstructive influence of indifference from matters of goal activation or deactivation (i.e., goal accessibility). Although goals may be activated in memory much like other knowledge constructs (Kruglanski, 1996; Shah & Kruglanski, 2000), their subsequent pursuit could be either encouraged or discouraged by social cues (including by the actions of others; Aarts, Gollwitzer, & Hassin, 2004; Bargh & Gollwitzer, 1994). Whereas some cues might affect the goal's accessibility (Shah & Kruglanski, 2002), other cues, such as indifference, might affect one's level of goal striving. Indeed, we assume that a goal can loom large in one's mind but one can feel unable to pursue it.

### Are You With Me? No? Responding to Indifference

A basic premise of this work is that some people cannot help but to assimilate or internalize indifference when they see it. It has long been noted that people adjust the intensity of their striving to match the level of striving seen in those around them (Kerr, 1983; Triplett, 1898), and contemporary studies suggest that mere exposure to significant others who place little value or expectancy in a goal can diminish the perceiver's striving for it (Shah, 2003). However, it is unclear whether exposure to indifference can suffice to exert a motivational influence. When someone yawns, for instance, perceivers seem to know rather intuitively that the person is getting bored (e.g., Provine & Hamernik, 1986), but can behaviors as basic and contagious as yawning (see Chartrand, Maddux, & Lakin, 2005) also cue disengagement from a corresponding goal or task? We suggest that they can if perceivers associate the behaviors with a lack or loss of motivation.

The notion that perceivers could assimilate indifference is based on research suggesting that mere exposure to certain social cues can suffice to have an influence. For instance, mere exposure to social groups stereotypically associated with cognitive deficits can undermine the perceivers' own subsequent performance on cognitive tasks (e.g., when priming *soccer hooligans* or *the elderly*; Dijksterhuis, Aarts, Bargh, & Van Knippenberg, 2000; Dijksterhuis & Van Knippenberg, 1998). Research on social contagion suggests that the influence of mere exposure also applies to assimilating others' motivation for goals (Aarts et al., 2004; Dik & Aarts, 2007) and perhaps even their losses of motivation: Job burnout, for instance, spreads through social contact among teach-

ers and medical professionals (Bakker & Schaufeli, 2000; Bakker, Schaufeli, Sixma, & Bosveld, 2001), as do depressive symptoms among college roommates (e.g., social withdrawal, work inhibition; Haefel & Hames, 2014; Joiner, 1994). Thus, mere exposure to indifference could be enough to invoke a process of assimilating the absence of motivation it implies.

Indifference, however, might involve a slightly different assimilation process that is perhaps more difficult to understand. Perceivers typically only assimilate others' motivation for goals when it serves their interests to do so (Aarts et al., 2004; Leander, Shah, & Chartrand, 2011); yet, a potentially insidious feature of indifference is that people might assimilate it not because they want to, but because it exploits their preexisting doubts about the goal or their ongoing readiness to disengage from it. Indifference could be especially challenging to overcome, because the idea of disengaging may be accessible to anyone who regularly rotates between goals or who happens to be choosy about when and where to pursue them. Just because one aspires for a goal does not mean one will be able to overcome the idea of disengaging from it; the idea of not pursuing a goal could always be a lurking possibility.

### Goal Commitment as a Moderator

Some perceivers may not be open to the idea of disengaging; the stronger their commitment to pursue a goal, the less open they may be to assimilating others' indifference toward it. We define *goal commitment* as a characteristic of goals pertaining to their importance or centrality to one's self-concept (e.g., Fishbach & Dhar, 2005). Goal commitment corresponds with an ongoing determination to attain the goal over time and across situations (e.g., Klinger, 1975). When one commits to a goal (or when one infers from past efforts that one is committed), this means that both the strength of the goal and one's determination to pursue it are set in advance and thus resistant to change.

Of importance, goal commitment has long been associated with overcoming obstacles and counteracting any goal-inconsistent alternatives that come to mind, and we expect the same to be true for indifference. Past work suggests that goal commitment keeps one from making goal-inconsistent choices (Fishbach & Dhar, 2005) and that it facilitates counteracting temptations (Fishbach, Friedman, & Kruglanski, 2003; Trope & Fishbach, 2000). Moreover, much as being committed to a particular attitude facilitates the inhibition of alternatives (Eagly & Chaiken, 1993; Pomerantz, Chaiken, & Tordesillas, 1995), commitment to a goal facilitates monitoring and counteraction of goal-inconsistent motivations and cognitions (Moskowitz, Gollwitzer, Wasel, & Schaal, 1999; Shah, Friedman, & Kruglanski, 2002). Thus, high commitment could allow one to notice alternatives but maintain one's conviction to pursue the goal ("I can't imagine ever changing my mind"; e.g., Abelson, 1988). It is, therefore, conceivable that goal commitment facilitates self-regulatory responses that help to overcome or counteract the implicit influence of indifference.

Note that we distinguish goal commitment from matters of goal accessibility. By goal commitment, we do not mean whether the person is thinking about the goal, for making a goal more accessible could be just the first step to disengaging from it (an assumption we test in this work). We also do not mean how much energy or effort is being put toward a goal or task; people can put a lot of energy into things and not feel committed to them (Zhang, Xu,

Jiang, & Huang, 2011). By goal commitment we specifically refer to whether one is determined to attain the goal (as opposed to being open to goal-inconsistent alternatives). In accordance with Gollwitzer's (1990) Rubicon model, we regard commitment as a kind of postdecisional mindset: Before committing to a goal or task, one might hesitate more easily or be more open to disengaging (or not engage in the first place). After committing, however, one becomes focused on how to pursue the goal rather than whether to pursue it.

### The Present Research

In five studies we tested the nature and boundary conditions of individuals' regulatory sensitivity to indifference. We generally hypothesized that exposure to indifference discourages and obstructs goal pursuit in the perceivers' minds; that is, it makes a goal seem more difficult. In addition to exploring the specific influence of indifference, we sought to identify two key boundary conditions to the influence: (a) the indifference must be directed toward a relevant goal and (b) the perceivers must lack sufficient commitment to the goal. With regard to the latter point, a second general hypothesis was that high goal commitment facilitates overcoming or counteracting indifference.

We explore these issues as they relate to achievement striving, which we assume can be impacted by indifference on an everyday basis. We used a multimethod approach to manipulate indifference and subsequently assess its influence on perceivers. In addition to assessing the behavioral impact of indifference, we used self-report data to gain insight into the specific nature of the influence and why goal commitment may facilitate overcoming it. We sought to test the general idea that indifference obstructs goal pursuit in perceivers' minds, facilitating feelings of discouragement and demotivation and increasing the perceived difficulty of any corresponding goal-related task.

The progression of our studies is as follows: In Study 1 we tested whether mere exposure to indifference undermines subsequent striving on a goal-related task, but only when the indifference is directed toward that one goal in particular. In Studies 2a–b we tested whether two classic correlates of goal commitment—grade-point averages and chronic achievement motivation—also moderate perceivers' reactions to indifference. Study 3 served as a conceptual replication and extension of the initial studies, wherein we tested the moderating roles of both the goal relevance of the indifference and goal commitment.

Whereas the first three studies tested the boundary conditions of indifference, Studies 4 and 5 explored the specific nature of its influence. For instance, we tested whether the perceivers' reactions would differ if we manipulated goal accessibility or goal commitment in advance of perceivers' exposure to the indifference. We hypothesized that heightened goal commitment would facilitate counteracting indifference but heightened goal accessibility would not. We also used self-report data to assess the specific perceptual, evaluative, and subjective influence of indifference when in the midst of goal pursuit; our dual aims were to specifically link the influence to feelings of discouragement and obstruction and to get an indication of how and why commitment might facilitate counteracting it.

In addition to the above, Studies 2b and 5 sought to distinguish the influence of indifference from the influence of negative affect.

We assume that indifference represents the absence of positive cues rather than the presence of negative cues, so their implications for motivation might often diverge. Whereas indifference may plainly signal an absence of motivation, negativity may have a wider range of implications (such as signaling that a need is not being met; e.g., Carver & Scheier, 1998). We hypothesized that indifference would obstruct goal pursuit more reliably than negativity, both because it more directly represents the idea of disengaging (or not engaging in the first place) and because such disengagement could be an easy-to-conceive alternative for anyone who lacks strong commitment to the focal goal.

### Study 1

This study sought to test the basic idea that exposure to indifference can undermine subsequent goal striving. In this study, we manipulated whether participants were primed with behavioral cues to indifference and we hypothesized that this would undermine participants' persistence on a goal-related task. However, given our assertion that indifference is object oriented, we further hypothesized that indifference will influence subsequent goal striving only when it is directed toward that goal in particular. If the indifference is directed toward something else, we do not expect it to influence goal striving.

In this study we manipulated participants' exposure to indifference as well as the specific object the indifference was directed toward: in this case, a math task that participants had been given a goal of completing as part of the study. We otherwise assumed participants would have incentive to adopt this goal in order to ensure payment for their participation, and the task was designed to not seem particularly onerous or challenging. Participants were either primed with indifference toward the math task or not, and we then assessed their subsequent striving on it. Although priming math-related concepts could often prepare one to engage in a math task (see, e.g., Cesario, Plaks, & Higgins, 2006; Ferguson, 2008), we hypothesized that associating the math task with indifference would only undermine task engagement. If this were the case, it would provide initial support for the idea that indifference can undermine goal striving but only when it is specifically directed at that goal.

### Method

**Participants.** Ninety-six adults (53 female) completed the study via Amazon's Mechanical Turk (\$0.50 for 20–30 min). Demographic variables such as gender did not affect the presented results.

**Procedure.** The present study used a 2 (indifference vs. control verbs)  $\times$  2 (math-task vs. unrelated primes) factorial design. Participants were told that, as part of a survey on personality and motivation, they would be completing a pair of search puzzles. The first was described as a word search, and the second was described as a number-sequence search.

We sought to manipulate indifference to the second puzzle (the math task) through the contents of the first. The first search puzzle consisted of a grid of letters containing words of four letters or more that were hidden either vertically from top to bottom or horizontally from left to right. Specifically, the word solutions on the first task consisted of either 10 indifference verbs (*forgo*,

*detach*, *diminish*, *decline*, *lessen*, *lower*, *neglect*, *wane*, *reduce*, and *tire*) or 10 control verbs (*allow*, *appear*, *begin*, *follow*, *happen*, *listen*, *reply*, *send*, *speak*, and *would*). In addition, the search contained five nouns meant to serve as the objects toward which the verbs' action (or inaction) was directed. The nouns were either related to the subsequent task (*math*, *numbers*, *search*, *addition*, and *total*) or unrelated to it (*place*, *planet*, *story*, *thing*, and *field*). Participants were tasked with finding as many of the words as possible within three minutes, after which they were automatically forwarded to the second puzzle.

The second search puzzle, the math task, consisted of a 12  $\times$  12 grid of numbers with hidden three-number sequences in which the first two numbers of the sequence summed to the third number in the sequence (see the online supplemental materials). The sequences could be either vertical from top to bottom or horizontal from left to right. Participants were given the task goal of finding as many of the number sequences as they could by clicking on all three numbers in a given sequence. We assessed their goal striving by calculating a persistence score from the total number of seconds spent on the number-sequence search puzzle (log-transformed to lessen the impact of potential outliers; see Fazio, 1990); we also calculated a performance score from the total number of three-number sequences found. Demographics were collected and participants were debriefed afterward.

### Results and Discussion

A 2 (indifference vs. control verbs)  $\times$  2 (math-task vs. unrelated primes) analysis of variance (ANOVA) on math task persistence yielded a significant crossover interaction,  $F(1, 92) = 6.90$ ,  $p = .010$ ,  $MSE = .31$ , and no main effects ( $F_s < 1.5$ ). As illustrated by the (untransformed) group means in Figure 1a, simple effects tests indicated that those primed with indifference verbs and math-task words persisted less on the number-sequence puzzle than did those primed with control verbs and math-task words ( $p = .005$ ) and those primed with indifference verbs and unrelated words ( $p = .073$ ). This means that priming the math task along with indifference undermined subsequent persistence on the math task. Otherwise, those primed with control verbs persisted longer when primed with the math-task words as opposed to unrelated words ( $p = .055$ ).

A 2  $\times$  2 ANOVA on performance also yielded a crossover interaction,  $F(1, 92) = 3.44$ ,  $p = .067$ ,  $MSE = 28.04$ , and no main effects ( $F_s < 1$ ). As illustrated in Figure 1b, the performance effects virtually mirrored the persistence effects. However, the only simple effect to approach significance was the one for the math-task primes in the control verbs condition ( $p = .068$ ). Further analyses suggested that participants' math-task performance was probably just another sign of their persistence: The two variables were highly correlated ( $r = .68$ ,  $p < .001$ ), and controlling for persistence subsumed the interaction effect on performance (rendering it nonsignificant;  $F < 1$ ). This may suggest that the indifference affected effort over ability.

These results indicate that exposure to indifference can indeed undermine subsequent goal striving but only if the indifference is directed toward that one goal in particular. When the indifference was directed toward something else, it did not influence participants' goal striving. These findings support our assertion that indifference is object oriented and that perceivers interpret its



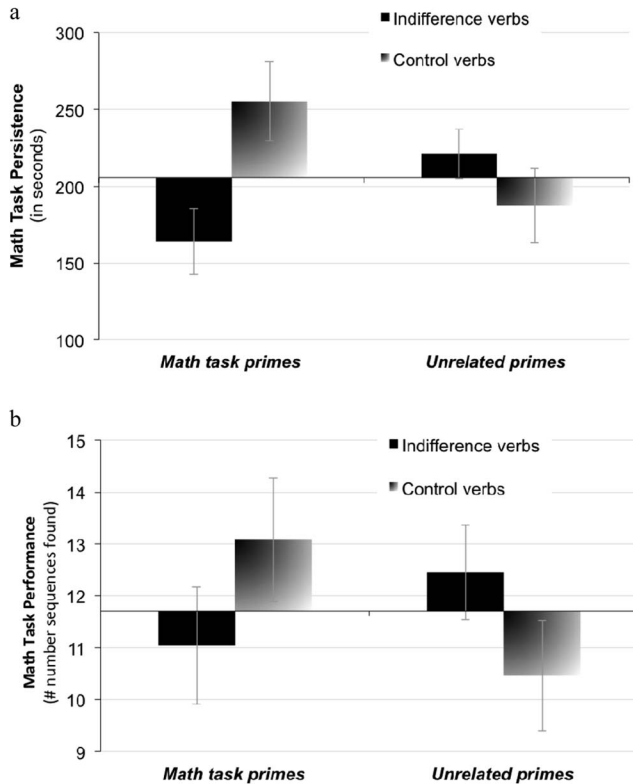


Figure 1. Study 1: Math task persistence and performance as a function of participants' indifference condition and task priming condition. The values for persistence were calculated by inverting the log-transformation. Error bars represent standard errors, and the  $x$ -axis crosses at the mean.

motivational self-relevance in context to specific goals and goal-related tasks.

### Study 2a

In Studies 2a–b we also manipulated participants' exposure to indifference, but this time we held its goal relevance constant and instead tested whether classic correlates of goal commitment moderate perceivers' reactions. We generally hypothesized that perceivers with low goal commitment would be more likely to assimilate indifference when exposed to it, as indicated by a reduction in striving on a subsequent, goal-related task.

In Study 2a, we tested whether students' regulatory sensitivity to indifference is moderated by their history of successful achievement striving—as reflected in their grade-point averages (GPAs). Although GPA can be a rather coarse measure of goal commitment (it could also reflect ability), GPA is nevertheless a fairly objective measure and often moderates students' sensitivity to achievement-related goal priming (Ferguson, 2008; Leander et al., 2011). Higher GPAs may correspond with goal commitment in a few ways: People who are highly committed to achieve may work to attain higher GPAs, those with higher GPAs may be more likely to infer from their past efforts that they are highly committed, and those with higher GPAs may have more to lose from disengaging. In contrast, low GPAs may correspond with a relative lack of goal commitment; in general, disengaging from an achievement-related

task may be more of a distinct possibility for those with lower GPAs than those with higher GPAs.

### Method

**Participants.** Fifty-two undergraduates (34 women) from a private, southeastern university completed this study in exchange for cash payment. Three additional participants had completed similar experimental tasks in an earlier study and were removed from the analysis. Demographic variables such as gender did not affect the presented results.

**Procedure.** There were two image priming conditions and one hanging control condition. After they had completed some unrelated questionnaires, participants in the two image priming conditions were subliminally primed with images depicting either indifference toward achievement or not. Across 10 practice and 90 test trials, participants worked on a lexical decision task to keep their attention focused on the center of the screen (Shah, 2003); meanwhile, between each trial, participants were subliminally primed with different images of college-age individuals embedded in mundane academic contexts (50 ms, backward masked; Bar & Biederman, 1998). There were six different images in each condition, each presented 15 times in random order. Note that we followed the recommendations of Bargh and Chartrand (2000) and also pilot-tested the paradigm to minimize conscious processing of the image primes.<sup>1</sup>

In the indifference-priming condition, the images depicted apathy and idleness in various academic contexts (inattention in class, droopiness at a desk, etc.; see Figure 2). In the control-images condition, the primes depicted behaviors more standard for their academic contexts (more activity, better posture, etc.). In a separate pilot test ( $N = 58$ ), we ensured that the amount of achievement motivation depicted in the indifference images (rated 1 = none at all to 9 = an extreme amount) was indeed quite low ( $M = 2.99$ ,  $SD = 0.88$ ;  $\alpha = .79$ ); the indifference images were rated lower than the control images ( $M = 6.43$ ,  $SD = 0.94$ ,  $\alpha = .82$ ,  $p < .001$ ), which were, in turn, rated lower than five of six other images: two of students enthusiastically

<sup>1</sup> We presented the images subliminally in order to minimize the role of conscious processing (Bargh, 1996), but the threshold of subliminal activation may depend on a variety of factors. We took four additional steps to minimize conscious awareness. First, we presented the images parafoveally (e.g., Bargh & Chartrand, 2000). Second, we minimized the size of the images, to 37 cm<sup>2</sup>, so as to be smaller than the 64 cm<sup>2</sup> used by Winkielman, Berridge, and Wilbarger's (2005) work on subliminally primed images of emotional expressions. Third, we primed participants while they were consciously focused on another task. Fourth, we used funneled debriefing to probe participants' detection of the image primes and found minimal cues to conscious awareness across the presented studies. Only in rare cases did participants report seeing a person or academic setting, but it was neither systematic nor very accurate. In a pilot study ( $N = 58$ ), undergraduates completed a 30-trial version of the subliminal priming procedure, with half receiving the six indifference primes and half receiving the six control primes. Participants were then asked to report whether they detected the subliminally presented images and to try and describe them in as much detail as possible. Of the 58 participants, only one from the control condition was able to basically describe one of the six images. Of importance, we then forewarned participants that they would receive four additional trials where they would again be subliminally presented with the images. Despite the forewarning, participants were still unable to describe any of them.



Figure 2. Sample images of indifference in academic contexts. Additional information is provided in the online supplementary materials. Left and center images: Corbis. Right image: Getty Images.

raising their hands in class ( $M = 7.17$ ,  $SD = 93$ ,  $p < .001$ ), two of proud college graduates ( $M = 7.23$ ,  $SD = 1.34$ ,  $p < .001$ ), and one of a student taking an exam ( $M = 7.02$ ,  $SD = 1.02$ ,  $p < .001$ ). The control images did not differ from a sixth image of someone studying but showing signs of fatigue ( $M = 6.03$ ,  $SD = 1.85$ ,  $p = .14$ ).

After they had completed the priming task, participants were asked whether they noticed the images (*yes* or *no*) and to describe them if possible. Although participants were generally inclined to indicate that they noticed the flashing images, only one from each condition described it as a person in an academic setting (though not what the person was doing). Note that we also assessed their broader goal orientations to test whether this manipulation led participants to become more negative toward achievement generally; these ratings were unaffected.<sup>2</sup>

The participants in the hanging control condition did not complete the above procedures; instead, they were recruited separately to complete filler questionnaires and a neutral version of a scrambled sentence task (so as to ensure that they were not primed with any particular motivation; Bargh & Chartrand, 2000). All participants then completed the same dependent measure, below.

Participants' subsequent task motivation was assessed via their performance on a Graduate Record Examination (GRE) test, with the label "Examination Preparatory Guide: Verbal Analogies." We chose a GRE test with the idea that those with lower GPAs may be less committed to preparing for graduate school. Participants were instructed that they would have 8 minutes to complete a series of verbal analogy problems. For each problem, participants were given a pair of words (e.g., *elephant: herbivorous*), and their task was to select a second pair (from a set of five pairs) that was conceptually similar (e.g., *tiger: carnivorous*). They were informed that each problem would get more difficult than the last, and they were allowed to skip any question they could not answer. We calculated a GRE performance score by summing their correct responses (out of 12).

Participants then completed more questionnaires, and they entered their cumulative grade-point averages at the end of it. Participants' priming condition did not affect their self-reported GPAs ( $F < 1.0$ ). Demographics were collected, and participants completed a funneled debriefing to ensure that none were aware of the true purpose of the study (Bargh & Chartrand, 2000). Participants were then debriefed.

## Results and Discussion

An initial regression analysis predicted participants' GRE test performance from their indifference priming condition (1 = indifference vs. -1 = control), GPAs (standardized), and the interaction of these variables. Results indicated a two-way interaction of the indifference prime and GPA,  $B = .65$ ,  $F(1, 27) = 5.11$ ,  $p = .032$ ,  $R^2_{adj} = .12$ , and no direct effects. Subsequent simple slopes analyses, calculated at one standard deviation above and below the mean GPA, indicated that those with lower GPAs performed worse when primed with the indifference images as compared to the control images,  $B = -1.05$ ,  $F(1, 27) = 5.89$ ,  $p = .022$ , but those with higher GPAs performed equally well across priming conditions ( $F < 1.0$ ). As illustrated in Figure 3, participants with low GPA behaviorally assimilated the indifference; their worsened GRE performance suggested that they responded to it as a cue to disengage. In contrast, participants with high GPA maintained their baseline level of performance when others were indifferent.

A second regression analysis comparing the indifference condition to the hanging control condition also resulted in a two-way interaction with GPA,  $B = .88$ ,  $F(1, 29) = 4.63$ ,  $p = .040$ ,  $R^2_{adj} = .08$ , with no direct effects. As before, those with lower GPAs performed worse when primed with indifference as compared to no images at all,  $B = -1.33$ ,  $F(1, 29) = 4.95$ ,  $p = .034$ , and those with higher GPAs performed the same regardless of condition ( $F < 1.0$ ). A third regression analysis indicated no differences between the control-images condition and hanging control condition ( $F_s < 1.0$ ), suggesting that the effects were driven by the indifference images.<sup>3</sup> Note that participants in the two control conditions also performed the same regardless of their GPAs

<sup>2</sup> We assessed their orientations toward academics and physical fitness. They rated how generally unmotivated, inspired, apathetic, indifferent, committed and invested they felt and also the goal's perceived importance and their expectations of its success or difficulty. Results indicated only one, marginal interaction of GPA and indifference,  $B = -.19$ ,  $F(1, 27) = 2.79$ ,  $p = .107$ ,  $R^2_{adj} = .13$ , in a pattern indicating that participants with high GPA primed with indifference reported reduced expectations of academic difficulty when others were indifferent. However, this interaction was extinguished when controlling for the difficulty of physical fitness, making the results difficult to interpret.

<sup>3</sup> To further ensure that participants in the control conditions were not inadvertently primed with any sort of achievement goal, we gave a separate group of participants ( $n = 20$ ; recruited at the same time as the hanging control) the Achievement Goal prime version of the scrambled sentence task (Bargh & Chartrand, 2000). As expected, participants with high GPA who were primed with achievement outperformed all other participants in the study (predicted means: 1  $SD$  GPA = 7.91 and -1  $SD$  GPA = 5.77); regression analyses indicated positive interactions of the achievement prime and GPA when compared to both the hanging control condition,  $B = .92$ ,  $F(1, 37) = 5.25$ ,  $p = .028$ , and the control images condition,  $B = .69$ ,  $F(1, 35) = 4.61$ ,  $p = .039$ , suggesting that participants with high GPA overperformed when primed with achievement. When the achievement goal prime condition was compared to the indifference images condition, there were only direct effects of GPA,  $B = 1.04$ ,  $F(1, 28) = 7.78$ ,  $p = .009$ , and condition,  $B = .64$ ,  $F(1, 28) = 2.61$ ,  $p = .118$  (.025 when controlling for year in school). Taken together, participants with high GPA who were primed with achievement overperformed on the GRE task relative to all other conditions,  $B = .88$ ,  $F(1, 68) = 4.56$ ,  $p = .036$ , whereas low-GPA participants who were primed with indifference underperformed relative to all other conditions,  $B = -1.00$ ,  $F(1, 68) = 4.05$ ,  $p = .048$ . This suggests that high-versus-low GPA participants were sensitive to different kinds of goal-related social cues, whereas participants with high GPA assimilated the achievement prime, participants with low GPA assimilated the indifference.

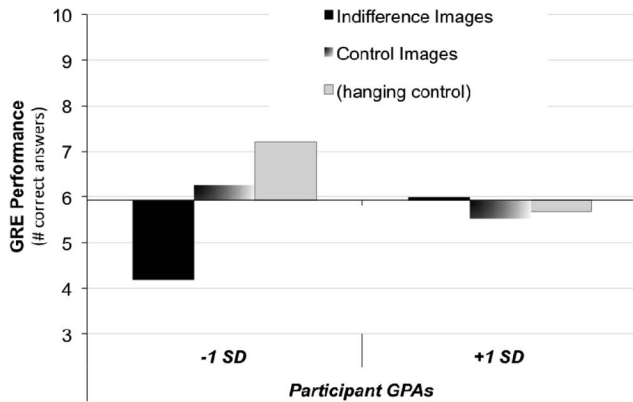


Figure 3. Study 2a: Performance on the GRE task as predicted by participants' indifference priming condition and self-reported GPAs. Values are predicted from regression coefficients, and the x-axis crosses at the mean. GRE = Graduate Record Examination; GPA = grade-point average.

( $F_s < 1.0$ ), which supports the use of GPA as a measure of goal commitment rather than of ability. The ability range for standardized tests might also have been rather limited for this student sample, given the narrow admissions criteria of the university.<sup>4</sup>

The results of this study suggest that perceivers' goal commitment, as reflected in their GPAs, moderates whether they assimilate others' indifference or not. Whereas participants with lower GPAs responded to it as a cue to disengage, those with higher GPAs did not. This suggests that goal commitment facilitates overcoming indifference. Note there are some limitations of this study: First, it had a modest sample size and used a rather coarse measure of goal commitment. Another limitation, which pertains to both Study 1 and 2a, is that the indifference manipulations may have implied a mix of both indifference and negativity (e.g., boredom, tedium). Therefore, Study 2b sought to conceptually replicate the moderating role of goal commitment while also testing our assertion that it is the absence of motivation—not the presence of negativity—that reliably undermines goal striving among perceivers who lack goal commitment.

### Study 2b

In this study we sought to distinguish the influence of indifference from negative affect. Whereas negative affect could certainly be discouraging and undermine motivation, we expected that indifference would undermine task motivation more reliably than negativity would. We assumed that indifference plainly represents disengagement, whereas negative affect might have a wider range of implications (e.g., Carver & Scheier, 1998). Furthermore, whereas indifference might only necessitate a lack of commitment to have an influence, negativity might necessitate substantive changes in one's evaluative disposition toward the goal. The idea of disengaging from a goal (or not engaging in the first place) could also be easier and more accessible than the idea of turning against it. In this study, we hypothesized that for those who lacked goal commitment, priming indifference was more likely to undermine subsequent goal striving than priming negativity.

### Method

**Participants.** Fifty-five participants (33 female) completed the study via Amazon's Mechanical Turk (\$0.50 for 20–30 min). Demographic variables such as gender did not affect the presented results.

**Procedure.** Participants first completed a battery of assessments that included the Achievement Motivation subscale of Jackson's (1974) Personality Research Form to assess their chronic achievement orientation. Past work has identified this subscale as a reliable predictor of goal commitment (Hollenbeck, Williams, & Klein, 1989). Afterward, participants were told that as part of a survey on personality and motivation they would be completing two word puzzles. We assumed participants would have incentive to complete both puzzles in order to ensure payment for their participation; however, as in Study 1, indifference to the second task was manipulated through the contents of the first. The first puzzle served as the priming task, which involved taking sets of five words and unscrambling them into a coherent four-word sentences (see Chartrand & Bargh, 1996). Five of the six sets were randomly manipulated to contain either indifference-related words (*apathy, remiss, wane, lessen, tire*) or negative words related to anger (*bother, irritated, trouble, anger, pain*).

Participants then completed the second puzzle, with the assigned goal of finding as many words as they could in a  $20 \times 20$  grid of letters. Participants were told that the words were at least four letters in length (e.g., "planet," "sell") and were hidden either vertically from top to bottom or horizontally from left to right. We assessed their goal striving by calculating a persistence score from the total number of seconds spent on the puzzle (log-transformed to lessen the impact of potential outliers; see Fazio, 1990) and a performance score from the total number of words found. Demographics were then collected and participants were debriefed.

### Results and Discussion

Separate regression analyses predicted participants' word search persistence and performance from their priming condition (1 = indifference vs. -1 = anger), chronic achievement orientation (standardized), and the interaction of these two variables. Results for persistence indicated a direct effect of achievement orientation,  $B = .23$ ,  $F(1, 51) = 5.48$ ,  $p = .023$ , and a marginal two-way interaction of indifference and achievement orientation,  $B = .17$ ,  $F(1, 51) = 3.17$ ,  $p = .081$ ,  $R^2_{adj} = .09$ . Results for performance indicated a corresponding direct effect of achievement orientation,  $B = .20$ ,  $F(1, 51) = 4.38$ ,  $p = .041$ , and a two-way interaction,  $B = 1.59$ ,  $F(1, 51) = 4.62$ ,  $p = .036$ ,  $R^2_{adj} = .06$ . As illustrated in Figures 4a–b, the two-way interactions indicated that low-achievement-oriented participants showed reduced persistence and performance in response to indifference but not anger. High-achievement-oriented participants overcame the indifference in a pattern suggesting counteraction. Similar to Study 1, persistence and performance were highly correlated ( $r = .58$ ,  $p < .001$ ) and

<sup>4</sup> According to the university's admissions office, the middle 50% of accepted applicants for a recent freshman class had composite ACT scores between 29 and 33, which is among the top percentile of all people who took the test. This suggests a narrow range of ability, helping to ensure that GPA reflected goal commitment more than ability.



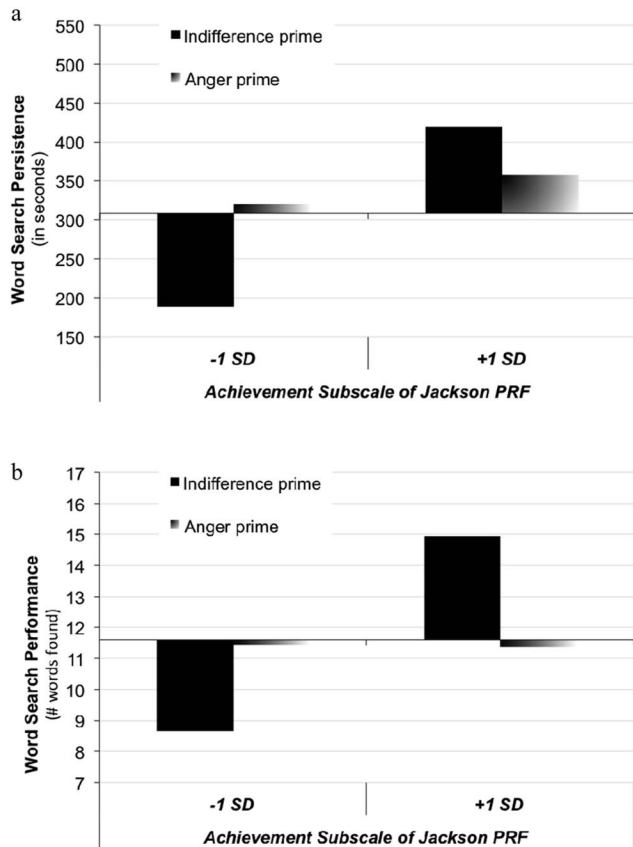


Figure 4. Study 2b: Word search persistence and performance as predicted by participants' indifference priming condition and chronic achievement orientation. The values for persistence were calculated by inverting the log-transformation. The x-axis crosses at the mean. Jackson PRF = Jackson's (1974) Personality Research Form.

controlling for persistence subsumed the effect on performance (rendering the interaction nonsignificant;  $F < 1.9$ ).

The divergent patterns for indifference and anger suggest that the influence of indifference is not simply due to negativity; that is, it has to do with an absence of motivation. These results suggest that indifference obstructs goal pursuit more reliably than negative affect, particularly among those for whom disengaging is more of a distinct possibility.

### Study 3

Thus far, we have identified two factors that may moderate the behavioral influence of indifference: its goal relevance and the perceivers' commitment to the goal. Our next step was to test both moderators in a single study, effectively combining the hypotheses of Studies 1 and 2. Our specific aim was to test if the goal relevance of the indifference determines both whether (a) a lack of goal commitment predicts a reduction in goal striving (assimilation) and (b) high goal commitment predicts a counteraction response. Past work suggests that goal commitment facilitates responding to cues that are clearly goal inconsistent (Fishbach et al., 2003; Shah et al., 2002), which can be distinguished from cues that are simply unrelated to the goal. In regard to indifference, the

distinction could matter because unlike such specialized behaviors as partying or eating junk food (which may clearly conflict with one's academic or health goals), behavioral cues to indifference may not invoke inconsistency with any one specific goal. With this in mind, the present study used images of people appearing either indifferent or not, but we varied whether the images were set in academic contexts (making the indifference goal-related) or non-academic contexts (making it unrelated). In other words, manipulating the image contexts could moderate the goal's accessibility at the moment of exposure to the indifference.

We also assessed goal commitment in a more precise, self-reflective way in this study. We assume that goals such as academic achievement are often pursued over the long term, meaning that people may feel more committed to a goal as a function of how much they have put toward it and a general aversion to letting their efforts go to waste (see Arkes & Blumer, 1985). The gist is that people can often infer commitment from reflecting on their past efforts and investments (e.g., Fishbach & Dhar, 2005). Such goal commitment could take the form of an ongoing determination to "not give up," which implies a kind of grit and vigilance that facilitates overcoming goal-inconsistent alternatives (e.g., Duckworth, Peterson, Matthews, & Kelly, 2007; Shah, Higgins, & Friedman, 1998). We assessed such goal commitment via the extent to which students believed they had put too much toward earning their college degree to give up on it.

In this study, we first assessed goal commitment and then manipulated whether participants were primed with images depicting indifference or not in contexts related to academic achievement or not; afterward, we assessed the participants' striving on an academic task. We predicted a three-way interaction between the various image primes and participants' commitment to not give up on the goal. We hypothesized that participants' goal commitment would moderate their responses when the indifference was goal-related but not when it was unrelated. Whereas those with lower commitment might assimilate indifference when it is goal-related, those with higher commitment might counteract it instead.

### Method

**Participants.** One hundred thirteen undergraduates (60 women) from a private, southeastern university completed this study in exchange for cash payment. One counterfeit response was screened. Demographic variables such as gender did not affect the presented results.

**Procedure.** Participants' goal commitment was assessed first. As part of an initial battery of questionnaires, participants reported their commitment to not give up on their pursuit of academic achievement via two self-reflection items ("If I don't finish my degree, I will have wasted a tremendous amount of effort" and "I've put in too much into my education to turn back now," both rated 1 = *Not at all* to 7 = *Extremely*;  $\alpha = .67$ ). Note that two additional items assessed perceptions of past effort ("I've invested a lot of effort into my education" and "I devote a large amount of time to my coursework";  $\alpha = .82$ ); these did not affect the presented results but helped to distinguish goal commitment from the amount of time and energy put into the goal (which do not necessarily lead to greater commitment, Fishbach & Dhar, 2005; Zhang et al., 2011).



Participants then completed an expanded version of the indifference priming procedure from Study 2a. Participants were subliminally primed with images of college-age individuals appearing either indifferent or not in contexts that were either related to achievement (“goal-related”) or unrelated to achievement. This means that in addition to the images used in Study 2a, there were now two more control conditions: one depicting indifference in nonacademic contexts—letting us test whether the goal relevance of the indifference moderates its impact—and another depicting control behaviors in nonacademic contexts, which served as an additional control condition.

Participants’ subsequent goal striving was then assessed via their persistence and performance on an anagram task (Shah, 2003). Participants were informed that they would be completing a “Verbal Fluency Test” and were instructed to unscramble various letter strings (e.g., RTCAE) to form as many different words as possible using all of the letters provided (CRATE, TRACE, etc.). They were given one practice trial before completing 10 test trials. We calculated an anagram performance score from the total number of solutions generated and an anagram persistence score by summing their trial times (in seconds, log-transformed and standardized).

Demographic information was then assessed, along with some exploratory self-reports to gain more insight into the influence of indifference. Four items assessed subsequent affect (how cheerful, depressed, tense, and relieved they felt; 1 = *Not at all* to 7 = *Extremely*), and two items assessed how committed and motivated they were to their academics, relative to their peers (rated 1 = *much less* to 7 = *much greater*). In addition, we sought to assess whether the indifference influenced participants’ perceptions of social support for their goals: Embedded among some additional items were two questions assessing the extent to which (a) their family expected them to be successful in life and (b) they, themselves, expected to be successful in life (0 = *unsure* [recoded as 1], 1 = *Not at all* to 7 = *extremely*). One participant had missing data on these items.

Participants then completed a funneled debriefing before they were fully debriefed (Bargh & Chartrand, 2000). No participants were aware of the true purpose of the study, nor could any identify the specific nature of the image primes.

## Results and Discussion

**Anagram task.** An initial regression analysis predicted participants’ anagram persistence from their indifference priming condition (1 = indifference vs. −1 = control), the image contexts (1 = goal-related vs. −1 = unrelated), goal commitment (standardized), and all possible interactions. Results indicated a direct effect of goal commitment,  $B = 1.58$ ,  $F(1, 105) = 4.00$ ,  $p = .048$ , and a three-way interaction of the indifference prime, goal relevance, and goal commitment,  $B = 2.61$ ,  $F(1, 105) = 10.86$ ,  $p = .001$ ,  $R^2_{adj} = .10$ . No other effects were significant, and the results were unchanged when controlling for practice item persistence ( $r = .50$ ,  $p < .01$ ). As illustrated in Figure 5a, participants’ reactions to the indifference depended on its goal relevance as well as their own goal commitment. Subsequent tests of the simple interactions indicated that, when the indifference was goal-related, the relatively uncommitted (−1 *SD*) participants assimilated the indifference and showed the least persistence (indifference × goal

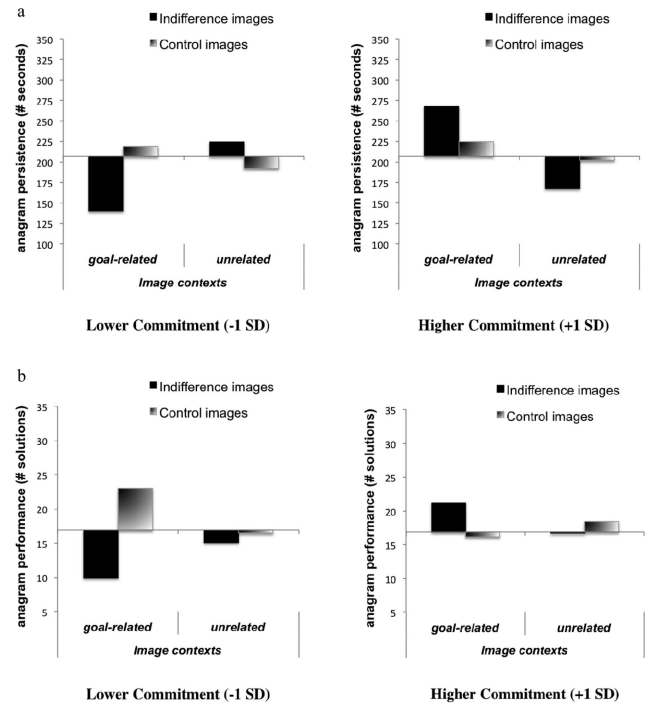


Figure 5. Study 3: Anagram persistence and performance as predicted by participants’ indifference priming condition, the goal relevance of the indifference prime, and felt goal commitment. Values are untransformed, and the x-axis crosses at the mean.

relevance),  $B = -2.99$ ,  $F(1, 105) = 7.49$ ,  $p = .007$ ). The relatively committed (1 *SD*) participants, however, showed an opposing response pattern suggesting counteraction,  $B = 2.22$ ,  $F(1, 105) = 5.23$ ,  $p = .024$ . Rather than persisting less when the indifference was goal-related, committed perceivers persisted longer.

A corresponding pattern was observed for anagram performance. As illustrated in Figure 5b, regression analysis yielded a marginally negative effect of indifference,  $B = -1.39$ ,  $F(1, 105) = 3.01$ ,  $p = .086$ ; a two-way interaction of indifference and goal commitment,  $B = 2.22$ ,  $F(1, 105) = 5.40$ ,  $p = .022$ ; and a three-way interaction of indifference, goal relevance, and goal commitment,  $B = 2.32$ ,  $F(1, 105) = 5.89$ ,  $p = .017$ ,  $R^2_{adj} = .04$ . No other effects were significant. As in the previous studies, persistence and performance were highly correlated ( $r = .58$ ,  $p < .001$ ), and controlling for persistence subsumed the three-way interaction for performance (rendering it nonsignificant;  $F < 1$ ).

**Self-reports.** Subsequent exploratory analyses also indicated a corresponding pattern for participants’ perceptions of social support—in the form of how much their family expected them to be successful in life—but only when controlling for their own expectations of success ( $r = .43$ ,  $p < .001$ ). The results indicated a positive effect of goal commitment,  $B = .24$ ,  $F(1, 104) = 3.93$ ,  $p = .050$ ; a two-way interaction of indifference and goal commitment,  $B = .25$ ,  $F(1, 104) = 4.23$ ,  $p = .042$ ; and a three-way interaction of the indifference prime, goal relevance, and goal commitment,  $B = .24$ ,  $F(1, 104) = 3.82$ ,  $p = .053$ ,  $R^2_{adj} = .21$  (.07 excluding covariate). When the indifference was goal-related, un-

committed participants perceived that their family had lower expectations of them. If participants generalized the influence to a perceived lack of social support, it could suggest that they felt discouraged and obstructed by the implicit influence of the indifference.

There were no notable effects on the four-item measure of affect or subsequent perceptions of relative commitment or motivation, though relative commitment, as a moderator, yielded three-way interactions for both anagram persistence,  $B = 1.59$ ,  $F(1, 105) = 6.33$ ,  $p = .013$ , and anagram performance,  $B = 1.44$ ,  $F(1, 105) = 3.03$ ,  $p = .084$ , in the same pattern as above. Participants' self-reported GPAs did not moderate the results, probably due to the different dependent measure used in this study.

Altogether, these results suggest that there are at least two factors—the goal relevance of the indifference and one's commitment to the goal—that moderate whether or not one assimilates indifference. Especially interesting to note is that participants who were highly committed showed a counteraction response; they persisted longer when the indifference was goal-related. The results support the previous findings by again suggesting that indifference is object oriented and not generalized and that goal commitment (or the lack of it) facilitates responding to goal-inconsistent cues but not goal-unrelated cues. These results also help to distinguish goal commitment from goal accessibility, inasmuch as the academic contexts of the images heightened the goal's accessibility (and thus the goal relevance of the indifference), but it was actually goal commitment that moderated the nature and direction of participants' responses.

The results of the self-report data provided initial insight into the specific influence of indifference; namely, that exposure to indifference could undermine one's broader expectations of social support for one's goals. Over the next two studies, we will explore the perceptual, evaluative, and subjective influence of indifference in order to test whether indifference generally discourages and obstructs goal pursuit in one's mind. We will also further distinguish goal accessibility from goal commitment by manipulating them both (in separate studies) before exposing participants to others' indifference toward the goal.

## Study 4

Our main purpose in this study is to demonstrate that heightened goal accessibility does not necessarily equate to heightened goal commitment. Goals can be made accessible in various ways, and this study specifically sought to prime an achievement goal in advance of participants' exposure to indifference toward a goal-related task. Thus far, we have either primed indifference along with a goal (i.e., increased the accessibility of both; Studies 1, 2a, and 3) or primed indifference just prior to completing a goal-related task (Study 2b). We have yet to manipulate goal accessibility prior to manipulating indifference.

Priming an achievement goal in advance (e.g., *achieve*, *win*) can often heighten motivation and persistence in the face of obstacles (Bargh, Gollwitzer, Lee-Chai, Barndollar, & Trötschel, 2001). However, priming a goal specifically involves increasing its cognitive accessibility, which may not be the same as increasing one's commitment to the goal. Recent work suggests that heightened goal accessibility does not necessarily increase the effectiveness of one's responding to goal-related cues (Ferguson, 2008). In addition,

some classic studies suggest that increasing motivation could just increase discouragement in response to obstacles (Mikulincer, 1988; Roth & Kubal, 1975). An achievement prime and indifference could act as opposing motivational influences, such that the achievement prime initially encourages goal pursuit but exposure to indifference subsequently discourages it.

In this study, participants were either primed with an achievement goal or not prior to working on an academic task wherein indifference was manipulated. We hypothesized that exposure to indifference would undermine goal striving and self-reported task motivation irrespective of whether or not an achievement goal was made accessible in advance.

## Method

**Participants.** One hundred eighty-one adults (80 male, 98 female, 3 not reported) completed the study via Amazon's Mechanical Turk (\$1 for ~20 minutes). One counterfeit response was screened. Two pilot tests ensured that in general, Mturk participants were higher on self-reported goal disengagement<sup>5</sup> and lower in baseline anagram performance than our on-campus student samples.<sup>6</sup> This suggested a low likelihood that priming an achievement goal would correspond with high goal commitment or skill.

**Procedure.** The present study used a 2 (achievement prime vs. no prime)  $\times$  2 (indifference vs. control) factorial design. For the achievement goal prime, we used a classic scrambled sentence task (Bargh & Chartrand, 2000; Chartrand & Bargh, 1996). In the achievement prime condition, words related to achievement were embedded in 18 of 20 sets (e.g., "gain", "win"); in the control condition, neutral words were embedded instead (e.g., "want", "kept").

Participants then completed a Scrabble-style anagram task wherein indifference was manipulated. Participants were presented with a Verbal Fluency Test involving a series of eight-letter words. The specific task goal was to rearrange the letters to form as many new words as possible using at least two characters each time. Note that we assumed participants had incentive to adopt this goal in order to ensure payment for their participation, but we expected the goal accessibility and indifference manipulations to influence their level of striving. Participants were given one practice item (*metaphor*), with examples of possible answers (*mother*, *hero*, *apt*, *earth*, *math*, *arm*, *team*). Participants then completed four test

<sup>5</sup> For the first pilot, Mturk participants ( $N = 27$ ) were recruited to complete an eight-item anagram task identical to that taken by an on-campus student sample ( $N = 32$ ; a convenience sample taken from the control conditions of an unrelated, unpublished study). Of note, the on-campus student sample performed better ( $M = 14.47$ ) than the Mturk sample ( $M = 11.30$ ),  $F(1, 57) = 4.10$ ,  $p = .048$ . However, the Mturk participants who reported being current college students ( $n = 7$ ) marginally outperformed the nonstudent Mturk participants ( $n = 20$ ,  $M = 14.71$  vs.  $10.10$ ),  $F(1, 25) = 3.52$ ,  $p = .072$ .

<sup>6</sup> For the second pilot, Mturk participants ( $N = 146$ ) were compared to on-campus students ( $N = 87$ ) on a 10-item unpublished measure of disengagement versus commitment. Items included *If a goal seems unattainable, I have a hard time sticking to it* and *I stay committed to a goal for a long time; I can't let go* (rated 1 = *strongly disagree* to 7 = *strongly agree*;  $\alpha = .85$ ). When controlling for age differences ( $M = 36.91$ ,  $SD = 14.07$  vs.  $M = 19.07$ ,  $SD = 1.05$  years), the on-campus students scored lower on disengagement than the Mturk sample ( $M = 4.66$  vs.  $4.92$ ),  $F(1, 230) = 6.66$ ,  $p = .01$ ,  $MSE = 1.64$ .

problems in random order (*antelope*, *lemonade*, *earthnut*, *headsets*).

To manipulate indifference, each problem was paired with a graph representing “other participants’ ratings of this problem.” Each graph depicted five words along with a frequency bar next to each word (*indifferent*, *interested*, *comfortable*, *difficult*, and *challenged*). In the indifference condition, two problems had high frequency bars for “indifferent” and low frequency bars for everything else. In the control condition, two problems had modest frequency bars for “comfortable” and “interested” and low frequency bars for everything else. The other two problems had only modest frequency bars. The indifference graph–word pairings were counterbalanced rather than randomized (*earthnut–headsets* vs. *antelope–lemonade*) but were combined into a single indifference condition.<sup>7</sup> We calculated a performance score from the total number of words created and a persistence score from the total amount of time spent on the anagrams (in seconds, log-transformed and standardized); three outliers were winsorized.

Participants’ self-reported task motivation was assessed next. Participants rated the extent to which each anagram had made them feel indifferent, interested, engaged, motivated, discouraged, and disengaged (rated 1 = *not at all* to 7 = *extremely*). The ratings were reliable across the four anagrams ( $\alpha = .82-.94$ ), so we combined them and then created two general scores: one representing task motivation (*interested*, *engaged*, *motivated*;  $\alpha = .98$ ) and one representing a sense of demotivation (*indifferent*, *discouraged*, *disengaged*;  $\alpha = .76$ ).

Participants then reported their demographic information and suspicions were assessed before they were debriefed. Twenty-three participants reported experiencing some kind of influence (e.g., negative, reactant, social comparison) and one participant was aware of the achievement prime, but neither form of awareness affected the subsequent results.

## Results and Discussion

**Scrabble task.** With regard to task persistence, we conducted a 2 (achievement prime vs. no prime)  $\times$  2 (indifference vs. control) analysis of covariance (ANCOVA), controlling for practice item persistence (log-transformed;  $r = .36$ ,  $p < .001$ ). Six participants had missing response time data. As illustrated in Figure 6a, the results indicated a positive main effect of the goal prime,  $F(1, 169) = 7.97$ ,  $p = .005$ ,  $MSE = 0.81$ , and a negative main effect of indifference,  $F(1, 169) = 8.39$ ,  $p = .004$ . The interaction was not significant ( $F < 1$ ). Whereas the achievement prime generally increased persistence, the indifference prime generally decreased it.

A subsequent  $2 \times 2$  ANCOVA on task performance, controlling for practice item performance, indicated corresponding marginal main effects of the goal prime,  $F(1, 175) = 2.92$ ,  $p = .089$ ,  $MSE = 0.62$ , and indifference,  $F(1, 175) = 3.21$ ,  $p = .075$ , with no interaction ( $F < 1$ ). As illustrated in Figure 6b, the pattern for performance mirrored the pattern for persistence. Note that the main effects on performance became significant ( $p < .05$ ) when controlling for age and gender and that controlling for the practice item yielded slight improvements to both models reported above. Note also that persistence and performance were highly correlated ( $r = .54$ ,  $p < .001$ ) and controlling for persistence subsumed the effects on performance.

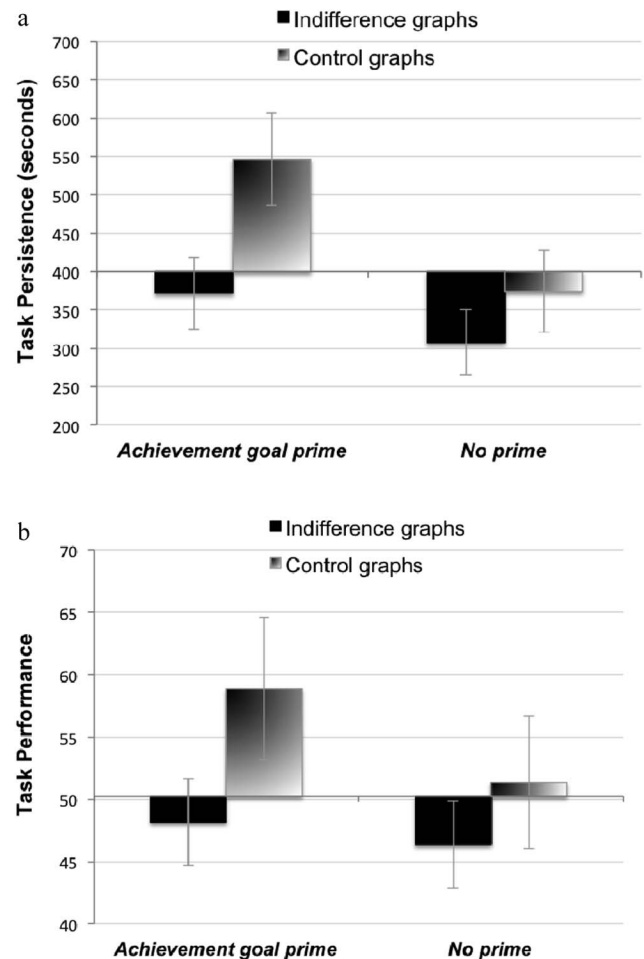


Figure 6. Study 4: Scrabble task persistence and performance as a function of participants’ indifference condition and goal priming condition. Means are unadjusted, and the values for persistence were calculated by inverting the log-transformation. Error bars represent standard errors, and the x-axis crosses at the mean.

These results generally support the idea that heightened goal accessibility does not necessarily equate to heightened goal commitment. Although the goal prime generally facilitated heightened goal striving, the indifference generally undermined goal striving—irrespective of whether or not participants were goal primed. Interesting to note, however, is that goal-primed participants did not disengage to a level below controls; they maintained their baseline level of striving. Their response was more akin to not

<sup>7</sup> Note that we resampled one of the counterbalanced control cells (no prime-indifference) due to what appeared to be a sampling error: participants in this one cell performed suspiciously high on the practice item (i.e., before the indifference manipulation) relative to everyone else,  $F(1, 175) = 3.58$ ,  $p = .030$ ; the other conditions did not differ from each other on the practice item (i.e., goal prime vs. no-prime;  $F < 1$ ). This did not happen in its counterbalanced ‘no prime-indifference’ cell or the other cells, nor did it happen when the cell was resampled. After resampling, there were no differences between the counterbalanced conditions ( $F_s < 1$ ), allowing us to collapse across them (control  $n = 61$ , indifference  $n = 120$ ).



engaging rather than to disengaging per se, meaning that they were susceptible to indifference but did not abandon the goal altogether.

**Self-reported task motivation.** The self-report data indicated a corresponding loss of task motivation and increased sense of demotivation, independent of the goal prime. A 2 (achievement prime)  $\times$  2 (indifference prime)  $\times$  2 (rating type: motivation vs. demotivation) mixed-model ANOVA indicated a significant cross-over interaction of indifference and rating type,  $F(1, 175) = 4.76$ ,  $p = .031$  (three participants had missing data). In general, participants in the indifference condition reported relatively higher demotivation ( $M = 2.68$  vs. 2.16) and relatively lower motivation ( $M = 4.63$  vs. 4.88) than did those in the control condition. There was also a main effect of rating type,  $F(1, 175) = 174.04$ ,  $p < .001$ , in that the motivation ratings were higher than the demotivation ratings. The goal prime did not moderate participants' ratings; however, when averaging the motivation and demotivation ratings, goal-primed participants gave marginally higher ratings overall ( $M = 3.69$  vs. 3.49),  $F(1, 175) = 3.54$ ,  $p = .062$ . This suggests that their feelings were stronger and more mixed. Note that the self-reports were subsumed by participants' task behavior: Task persistence was positively correlated with motivation ( $r = .42$ ,  $p < .001$ ) and negatively correlated with demotivation ( $r = -.34$ ,  $p < .001$ ), and controlling for persistence rendered the above interaction nonsignificant ( $F = 1.5$ ).

Altogether, these results suggest that increasing the accessibility of a goal does not facilitate overcoming indifference in the same way that goal commitment does. At best, the goal prime acted more as a counterforce to the indifference. In the next study, we experimentally manipulated goal commitment and used self-report data to better understand how and why goal commitment might facilitate overcoming indifference.

## Study 5

Studies 1–4 explored the behavioral influence of indifference and identified some key boundary conditions for it; however, they did not test the specific perceptual, evaluative, and subjective processes underlying the influence. In Study 5, we use self-report data to gain some insight into why indifference might undermine motivation and why goal commitment may help in overcoming this effect. We have previously suggested that indifference generally obstructs goal pursuit in perceivers' minds, so our first hypothesis was that a manipulation of indifference would lead perceivers to evaluate the attainment of a goal as more challenging. We also assessed various subjective ratings (e.g., discouragement) to better understand how the obstruction is experienced.

Our second hypothesis was that a manipulation of goal commitment would increase both the perception and counteraction of indifference. If goal commitment increases monitoring, then this might increase one's likelihood of noticing indifference when it is there; if we find this, it would help to rule out the alternative that committed individuals simply do not notice indifference as much (i.e., reducing their exposure rather than susceptibility). We assume that commitment causes indifference to stand out as goal inconsistent, making it easier to notice and counteract. Indeed, goal-inconsistent cues can trigger counteractive responding if the focal goal is a priority (Moskowitz et al., 1999; Trope & Fishbach, 2000), and just as one might counteract the appeal of tempting alternatives (Myrseth, Fishbach, & Trope, 2009), so, too, might

one counteract the discouraging influence of indifference. Research on goal contagion also supports this perspective: When an influence conflicts with a fundamental motive, contrast effects occur instead of assimilation (Leander et al., 2011). The potential for counteraction may be a factor that distinguishes goal commitment from goal accessibility.

An auxiliary aim of Study 5 was to further distinguish the impact of indifference from negativity. Although both may be impairing, indifference may plainly signal an absence of motivation whereas negativity may have a wider range of implications (Carver & Scheier, 1998). Our third hypothesis was that indifference obstructs goal pursuit in one's mind more reliably than negativity. We included additional hanging control conditions to test this prediction as a supplement to our main hypotheses.

To maximize the ecological validity and generalizability of the study, we had participants engage in goal-directed behavior in the very beginning so that the subsequent manipulations and self-reports pertained to actual rather than hypothetical goal-directed behavior. Participants started by working on an academic task, and then we manipulated both their commitment to completing the task as well as others' indifference toward it. We subsequently assessed their perceptions and self-reported reactions to the indifference, including an evaluation of task difficulty.

We predicted that exposure to indifference would generally increase ratings of task difficulty, with the idea that participants would retrospectively associate the imagined obstruction with the actual task experience (see Kruglanski, Alon, & Lewis, 1972, for a similar strategy). We also predicted that a manipulation of commitment would both increase the perception of indifference and also facilitate counteracting its discouraging influence. If this were indeed the case, it would offer some insight into the mechanisms involved in responding to indifference while in the midst of pursuing a goal.

## Method

**Participants.** Two hundred thirty-six adults (124 female) completed the study via Amazon's Mechanical Turk (\$0.50 for 15–20 min). One counterfeit response was screened. Demographic variables such as gender and age did not affect the presented results.

**Procedure.** The study used a 2 (indifference vs. control)  $\times$  2 (commitment vs. progress) factorial design ( $n = 121$ ), plus two hanging controls ( $n = 115$ ). Participants started by working on the Scrabble-style anagram task used in Study 4. The task was presented as a test of verbal fluency ("a general cognitive skill that is linked to a wide range of competencies"), and the goal was to create as many new words as possible from the eight-letter words provided, using at least two characters each time. To hold persistence constant, we instructed participants that they would have a set amount of time to work on each problem and should keep working until they were automatically forwarded to the next one. After an initial practice problem ("metaphor"), participants completed the four test problems in random order (with hidden time limits based on mean persistence scores from Study 4: "earthnut" = 89.25 s, "antelope" = 103.13 s, "headsets" = 91.40 s, and "lemonade" = 93.93 s). Note that participants' mean performance (total number of words created) corresponded with that from Study



4 ( $M = 53.32$ ,  $SD = 21.77$ ), and controlling for performance did not alter any of the subsequent results.

Commitment to completing the Verbal Fluency Test was manipulated after the fourth problem. Although there was no actual second part of the test, the instructions implied that there was; our aim was for participants to infer that the performance goal was either unfulfilled (in the commitment-focus condition) or partially fulfilled (in the progress-focus condition). Participants were led to reflect on either their commitment to completing the test or the progress they had made so far (Fishbach & Dhar, 2005). Note that unlike a commitment focus, a progress focus is linked to a sense of partial fulfillment and thus openness to goal switching and disengagement. Participants in the commitment-focus condition were specifically instructed, *Before moving on to complete the second part of the test, please take a moment to reflect on the commitment you have shown toward it so far*. On the next screen they were asked, *Given the amount left to be done, how committed are you to completing the Verbal Fluency Test?* (rated 1 = marginally committed to 5 = very committed). In turn, participants in the progress-focus condition were instructed, *You have now completed the first part of the test; please take a moment to reflect on the progress you have already made so far*. On the next screen they were asked, *Given what you have done already, how much progress do you feel you have made on the Verbal Fluency Test?* (rated 1 = moderate progress to 5 = substantial progress). Thus, across conditions the task-goal was accessible and something participants had put effort toward; the only difference was whether they inferred commitment or progress from their efforts and thus would be motivated to stay engaged or to be open to disengaging.

We then manipulated indifference by informing participants that other people had taken the Verbal Fluency Test before and their feelings about it were assessed at this stage. Participants were presented with “a summary of the most common responses”: an array of 24 subjective states, including four indifference-related states (*passive*, *neutral*, *laid-back*, and *sleepy*), and 20 positive and negative affect states (from the 20-item Positive and Negative Affect Schedule [PANAS]; Watson, Clark, & Tellegen, 1988). Each state had a corresponding percentage next to it, and the 24 percentages summed to 100%. In the indifference condition, the four indifference-related states had double-digit percentages (14–21%) and summed to a disproportional 70% (the PANAS states ranged from 0 to 4%, totaling 20% positive and 10% negative); in the control condition, the states were all rated 0–7%, totaling 18% indifferent, 48% positive, and 34% negative.

**Perception of indifference.** As an assessment of participants’ monitoring for indifference, they were then asked, *Generally speaking, how do people feel about the test? What is your overall impression?* They were given nine options with instructions to “click all that apply”: *Positive*, *Negative*, *Neutral*, *Motivated*, *Indifferent*, *Impressed*, *Sympathetic*, *Apathetic*, and *Dissatisfied*, all randomized, followed by a 10th, *I have no particular impression*. Responses were coded 1 (if clicked) or 0 (if not clicked). The three items associated with indifference (*Neutral*, *Indifferent*, *Apathetic*) were summed into a single score ( $M = .81$ ,  $SD = .95$ ). Note that the other words did not affect the results as covariates or as dependent variables.

**Perception of reviews.** As an assessment of their subjective reactions to the reviews, participants were asked, *I think the reviews are . . .* They were presented with eight items to rate:

*Discouraging*, *Useful*, *Important*, *Interesting*, *Motivating*, *Disrupting*, *Trivial*, *Interfering* (each rated 1 = not at all to 7 = very much). The items were randomized and presented simultaneously.

**Test difficulty.** Our main dependent measure was how indifference affected participants’ goal-related evaluations; namely, whether indifference made goal attainment seem more difficult. Immediately after evaluating the reviews, participants were informed that they would not complete the second part of the test (i.e., there was no second part). They were thanked and asked to give their reactions to the test itself. On the next screen they were asked, *How difficult is the Verbal Fluency Test?* (rated 1 = not at all to 7 = very difficult;  $M = 2.83$ ,  $SD = 1.55$ ), followed by a value rating, *How important is the Verbal Fluency Test?* (rated 1 = not at all to 7 = very important;  $M = 4.36$ ,  $SD = 1.56$ ). We expected participants to retrospectively associate the influence of the indifference with the challenge of the task itself; if they were obstructed by the indifference, this would affect the difficulty rating but not the value rating.

Participants then reported their demographics and their satisfaction with their initial test performance and efforts. They completed a funnel debriefing before being debriefed. Two participants reported that the reviews were probably fictitious, but this did not affect the results.

Note that after collecting and analyzing the data for the main study, we conducted two additional hanging control conditions: one for negative affect and another for aversion. For negative affect, the negative PANAS words summed to 70% (with double-digit percentages for *upset*, *irritable*, *distressed*, and *ashamed*; all other items were rated 0–5%). For aversion, we replaced the four indifference words with *forced*, *reluctant*, *averse*, and *unwilling*, so they totaled 70% (with 20% positive affect, 10% negative affect). All other methods and procedures were the same as in the main study.

## Results and Discussion

**Perception of indifference.** First we tested whether committed participants were more likely to explicitly notice the indifference when it was there. A 2 (indifference vs. control)  $\times$  2 (commitment vs. progress) ANOVA indicated positive main effects of both indifference,  $F(1, 117) = 3.97$ ,  $p = .049$ ,  $MSE = 0.97$ , and commitment,  $F(1, 117) = 3.97$ ,  $p = .049$ , and no interaction ( $F < 1$ ). The results are illustrated in Figure 7a. The main effect of indifference is basically a manipulation check (i.e., participants in the indifference condition were more likely to notice the indifference); however, the main effect of commitment is intriguing because it suggests that commitment increases the explicit perception of indifference. This finding is consistent with the idea that goal commitment increases monitoring for goal-inconsistent cues in the environment.

**Test difficulty.** Next we tested whether the indifference obstructed goal pursuit in the perceivers’ minds, as indicated by increased ratings of test difficulty. A 2 (indifference vs. control)  $\times$  2 (commitment vs. progress) ANOVA on participants’ test difficulty rating yielded a significant two-way interaction,  $F(1, 117) = 7.93$ ,  $p = .006$ ,  $MSE = 2.37$ , and no main effects. As illustrated in Figure 7b, exposure to indifference was more obstructive for progress-focused participants than commitment-focused participants; simple effects tests indicated that progress-focused partici-

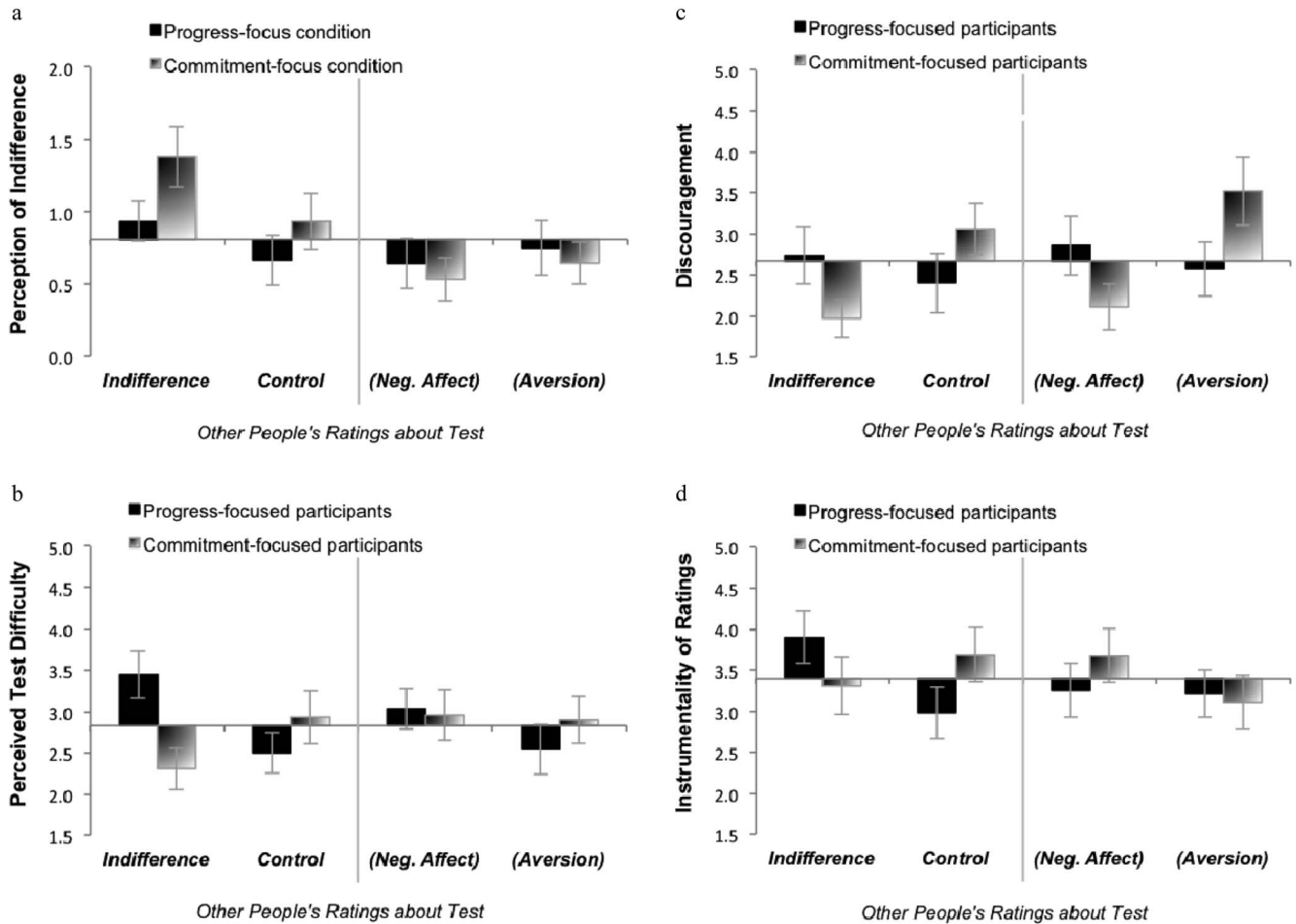


Figure 7. Study 5: Perception that others were indifferent about the test (a), retrospective evaluation of the test's difficulty (b), perception that the reviews were discouraging (c), and perception that the reviews were instrumental (*useful + important*; d), each as a function of participants' commitment and indifference conditions. Error bars represent standard errors, and the x-axis crosses at the mean for each rating. The hanging control conditions are in parentheses.

pants in the indifference condition evaluated the test as more difficult than did commitment-focused participants in the indifference condition ( $M = 3.45$  vs.  $2.31$ ,  $p = .005$ ) and progress-focused participants in the control condition ( $M = 3.06$ ,  $p = .017$ ). The effect was unchanged when controlling for their earlier task performance (which was otherwise negatively correlated with difficulty;  $r = -.45$ ,  $p < .001$ ). Regardless of how well they initially performed on the test, those who lacked commitment associated the influence of indifference to the challenge of goal attainment. There were no effects on the task importance or satisfaction ratings; the influence of indifference was specific to the evaluations of test difficulty.

**Perception of reviews.** To better understand why the indifference affected perceptions of difficulty, we conducted separate  $2 \times 2$  ANOVAs on each of the eight subjective reactions to the reviews. All significant findings are reported below. They suggest divergent response patterns for commitment- and progress-focused participants.

**Discouragement.** There was a significant two-way interaction for how discouraging the reviews were,  $F(1, 117) = 5.02$ ,  $p =$

$.027$ ,  $MSE = 3.13$ , and no main effects. The pattern of results indicated a counteraction effect among commitment-focused participants who were exposed to indifference. As illustrated in Figure 7c, commitment-focused participants reported reduced discouragement in response to the indifference, relative to commitment-focused participants in the control condition ( $M = 1.97$  vs.  $3.06$ ,  $p = .018$ ) and to progress-focused participants in the indifference condition ( $M = 2.74$ ,  $p = .091$ ). The reduction suggests that commitment-focused participants counteracted any potential discouragement stemming from the reviews.

Subsequent mediation analyses indicated a link between the ratings of discouragement and test difficulty. Following Preacher, Rucker, and Hayes (2007), we first we ensured that *discouraging* and *difficult* were indeed positively related,  $B = .31$ ,  $F(1, 119) = 16.14$ ,  $p < .001$ . Second, bootstrapping analyses (5,000 resamples, bias-corrected) indicated that for commitment-focused participants (who reported reduced discouragement), there was a reliable indirect effect of the indifference manipulation when using *discouraging* as the mediator of *difficult*,  $B = -0.15$ ,  $SE_B = 0.07$ ,  $CI_{95\%} [-0.33, -0.54]$ , yet an equivocal indirect effect when using *diff-*

*difficult* as the mediator of *discouraging*,  $B = -0.11$ ,  $SE_B = 0.08$ ,  $CI_{95\%} [-0.34, 0.01]$ . This suggests that commitment-focused participants were not obstructed by indifference because they counteracted its potentially discouraging influence. Bootstrapping indicated a reverse pattern for progress-focused participants: There was a reliable indirect effect when using *difficult* as the mediator of *discouraging*,  $B = 0.18$ ,  $SE_B = 0.09$ ,  $CI_{95\%} [0.04, 0.41]$ , but not when using *discouraging* as the mediator of *difficult*,  $B = 0.05$ ,  $SE_B = 0.07$ ,  $CI_{95\%} [-0.08, 0.22]$ . For progress-focused participants, the indifference may have been discouraging because it was obstructive.

**Instrumentality.** Independent of the effects on discouragement, there were two corresponding interactions for how important and useful the reviews were,  $F(1, 117) = 3.82$ ,  $p = .053$ ,  $MSE = 3.86$ , and  $F(1, 117) = 3.02$ ,  $p = .085$ ,  $MSE = 3.67$ . The important and useful ratings were highly correlated ( $r = .75$ ,  $p < .001$ ), so we combined them into a single instrumentality score (which was also predicted by the two-way interaction,  $F(1, 117) = 3.92$ ,  $p = .05$ ,  $MSE = 3.67$ ). As illustrated in Figure 7d, simple effects tests indicated that progress-focused participants rated the indifferent reviews as marginally more instrumental than the control reviews ( $M = 3.94$  vs.  $M = 3.03$ ,  $p = .076$ ), which is consistent with them being open to the idea of disengaging.

Mediation analyses also indicated a link between the ratings of instrumentality and test difficulty. The two ratings were positively related,  $B = .30$ ,  $F(1, 119) = 7.37$ ,  $p = .008$ , and bootstrapping analyses (5,000 resamples, bias corrected) indicated that, among progress-focused participants only, there were indirect effects both when using *instrumental* as the mediator of *difficult*,  $B = 0.10$ ,  $SE_B = 0.07$ ,  $CI_{95\%} [0.01, 0.29]$ , and when using *difficult* as the mediator of *instrumental*,  $B = 0.15$ ,  $SE_B = 0.08$ ,  $CI_{95\%} [0.04, 0.35]$ . For progress-focused participants, the indifferent reviews were more instrumental when they obstructed goal pursuit in their minds. Although this seems counterintuitive, it is nevertheless consistent with the idea that progress-focused participants are motivated to disengage; the obstruction may have provided the opportunity or justification to do so.

Some additional statistical results of the mediation tests are footnoted,<sup>8</sup> but we should note that participants' explicit perception of indifference did not mediate the effects. Although an increase in the explicit perception of indifference may indeed represent increased monitoring, the lack of mediation suggests that it may only be an indirect indicator. This could suggest that the observed assimilation and counteraction effects were driven more by implicit processes than explicit processes, which is consistent with other research on motivational contagion (Dik & Aarts, 2007).

Altogether, the main results of this study offer insight into the specific influence of indifference and why commitment might facilitate overcoming it. We found support both for our first hypothesis that a manipulation of indifference leads perceivers to evaluate goal attainment as more challenging and for our second hypothesis that a manipulation of goal commitment increases both the perception and counteraction of indifference.

It is conceivable to us that conflating indifference with task difficulty is a route through which indifference implicitly undermines subsequent goal striving. Although we did not assess subsequent striving in this study, assimilating the indifference seemed to make participants' earlier goal striving seem like more of a

struggle than it actually was. In a pattern consistent with the previous studies, the change in perceived difficulty occurred when goal accessibility was high (they were thinking about the test) but their goal commitment was not (they were progress focused).

It is also possible that the counteraction effect occurred implicitly, given that the explicit perception of indifference did not mediate the subsequent effects. We explored this further by analyzing the content of the funneled debriefing: An independent rater first coded whether or not participants guessed that the study was about the influence of the reviews (coded 0 or 1). We then conducted a binary logistic regression, using the manipulations and their interaction as predictors, and found only a negative direct effect of goal commitment,  $B = -.63$ , Wald = 7.04,  $p = .008$ . Commitment-focused participants were less likely to explicitly regard the reviews as an influence attempt, which supports the idea that they counteracted the influence automatically, before explicitly noticing it.

Altogether, these findings support the idea that commitment is a key moderator of how perceivers react to indifference. Whereas commitment-focused participants counteracted its discouraging and obstructive influence, progress-focused participants assimilated it. Some progress-focused participants even welcomed the obstruction, regarding it as more instrumental. The patterns of results are consistent with the idea that people are more likely to assimilate indifference when goal disengagement is already a distinct possibility for them.

**Comparisons to hanging controls.** Our third, auxiliary hypothesis was that indifference obstructs goal pursuit in one's mind more reliably than negativity does. The below analyses were conducted to further distinguish the influence of indifference from the influence of negative affect or aversion to the task. In regard to the explicit perception measure,  $2 \times 2$  ANOVAs indicated that participants perceived more negativity (*negative + dissatisfied*) from the negative affect and aversion reviews than from the control or indifference reviews ( $F_s > 5.26$ ,  $p_s < .024$ ). The commitment manipulation did not contribute to these perceptions ( $F_s < 1$ ), meaning that commitment increased the perception of indifference but not negativity.

Separate  $2 \times 2$  ANOVAs found that the hanging control conditions were virtually equivalent to the main control condition across almost all of the dependent measures ( $F_s < 1.7$ ), except for a single two-way interaction of commitment and negative affect on how discouraging the reviews were,  $F(1, 113) = 4.52$ ,  $p = .036$ ,  $MSE = 3.23$ . As illustrated in Figure 7c, the pattern for *discouraging* was the same for negative affect as it was for indifference. Subsequent  $2 \times 2$  ANOVAs comparing indifference to negative affect confirmed that they had corresponding effects on *discouraging* ( $F_s < 1$ ). However, the negative affect and indifference

<sup>8</sup> Some additional results of the mediation tests: First, *instrumental* and *discouraging* were uncorrelated among progress-focused participants ( $r = .17$ ,  $p = .20$ ) as well as commitment-focused participants ( $r = .001$ ,  $p = .99$ ). Second, there were no indirect effects (in either direction) between *instrumental* and *difficult* among commitment-focused participants. Third, in regards to the ANOVAs, controlling for *discouraging* did not meaningfully reduce the interaction effect on *difficult* ( $F = 4.66$ ), but the reverse, controlling for *difficult*, did reduce the interaction effect on *discouraging* ( $F < 1.9$ ). Accordingly, controlling for *instrumental* did not meaningfully reduce the interaction effect on *difficult* ( $F = 5.40$ ), but controlling for *difficult* did reduce the interaction effect on *instrumental* ( $F = 1.50$ ).



conditions still differed on *difficult*, as indicated by a two-way interaction between them,  $F(1, 112) = 3.77, p = .055, MSE = 2.20$ . This means that they were discouraging for different reasons: Whereas indifference obstructed goal pursuit in participants' minds (i.e., making the task seem more difficult), negative affect did not. When comparing indifference to the aversion condition, there were two-way interactions on both *discouraging*,  $F(1, 115) = 6.24, p = .014, MSE = 3.53$ , and *difficult*,  $F(1, 115) = 7.16, p = .009, MSE = 2.36$ , suggesting different reactions entirely.

Auxiliary analyses compared each hanging control to indifference on both the perception of indifference and instrumentality. In regard to the perception of indifference, the main effect of indifference remained significant ( $ps < .05$ ), but the main effect of commitment was replaced by marginal two-way interactions in the expected directions ( $ps \leq .11$ ). Instrumentality did not differ significantly ( $ps > .17$ ), meaning that the effect on *instrumentality* was significant only when comparing the indifference to the main control condition. Additional auxiliary analyses compared the two hanging controls to each other, yielding separate interactions for discouragement,  $F(1, 112) = 6.00, p = .016, MSE = 3.63$  (see Figure 7c), and participants' satisfaction with their test efforts,  $F(1, 111) = 5.25, p = .024, MSE = 1.53$ . When the reviews implied negative affect, commitment-focused participants were relatively more satisfied ( $M = 6.21, SD = 1.03$  vs.  $M = 5.39, SD = 1.62$ ); when the reviews implied aversion, progress-focused participants were relatively more satisfied ( $M = 6.11, SD = .99$  vs.  $M = 5.87, SD = 1.20$ ). These findings are tangential to our research questions, so we do not discuss them further.

Altogether, the comparisons to the hanging controls support our third hypothesis that indifference obstructs goal pursuit in one's mind more reliably than negativity.

## General Discussion

The results of our studies suggest that indifference has motivationally contagious qualities but that perceivers can differ in their reactions to it. We generally found that when perceivers lacked goal commitment, they were more prone to assimilating others' indifference toward the goal. Across the studies, mere exposure to indifference acted as a kind of psychological obstruction to goal pursuit, undermining goal striving or making the goal seem more difficult. This could indicate a rather insidious process wherein perceivers assimilate indifference not because they want to but because it exploits their preexisting doubts about the goal or their ongoing openness to disengage from it.

The studies also distinguished the role of goal accessibility from goal commitment in predicting people's reactions to indifference. Whereas goal commitment facilitated overcoming indifference, goal accessibility did not. The indifference was influential even when a goal had been made accessible in advance of participants' exposure to it, suggesting its potential for obstructing active goal pursuits. In contrast, highly committed participants overcame the indifference—counteracting its influence much as they might counteract temptation.

Altogether, these studies suggest that perceivers are sensitive to an absence of motivation in others and respond to it as a cue to disengage. From this perspective, mere exposure to indifference

could be a rather ordinary social phenomenon that affects one's everyday strivings.

## Implications for Self-Regulation

The impact of perceiving indifference occurred through mere exposure in these studies. Therefore, the challenge of overcoming indifference may be partially rooted in people's inability to control their implicit reactions to it. A lack of conscious awareness of its influence, or the processes underlying it, could make it hard to develop effective self-regulation strategies to counter it (Wills, 1994). If the influence seems uncontrollable, it might even facilitate feelings of depression or learned helplessness (Mikulincer, 1988). One may, therefore, have to learn how to overcome indifference implicitly, much as one has to learn to overcome other obstacles and temptations. Indeed, the present findings suggest a novel route through which goal pursuits may have to be defended from others: Whereas research on goal shielding and counteracting temptation suggests that one's focal goals must be protected from alternatives or distractions invoked by others, the present work suggests they also have to be protected from any discouragement invoked by others. Without such protection, one could end up highly focused on a goal but lack the motivation to pursue it.

The influence of indifference might also be ubiquitous, if perceivers are apt to notice it simply as part of evaluating others in terms of their goal instrumentality (Fitzsimons & Shah, 2008). The target persons need not even be focused on, or aware of, their indifference in order for one to notice it and react accordingly. This may be especially true when considering environments in which indifference is rampant or culturally embedded; people could either be oblivious to their own indifference or lack the wherewithal to conceal it. Although people can suppress negative emotions, an absence of motivation cannot be suppressed per se. It could also be distracting or disruptive if people try to feign the presence of a motivation that they do not have or understand. Indeed, it has been suggested that the hardest thing to hide about oneself is something that is not there (Hoffer, 1955).

As important as it is to consider the potential challenges of being sensitive to indifference, it is no less important to consider the potential functionality of such sensitivity to cues to disengage. Being able to let go of goals is an important part of self-regulation (Brunstein & Olbrich, 1985; Wrosch et al., 2003). Moreover, the ubiquity of motivating cues in the environment might necessitate a similar ubiquity of demotivating cues in order to facilitate goal switching and disengagement. People could have considerable difficulty letting go of goals once the intentions to pursue them have been formed (Bargh et al., 2001; Wrosch et al., 2003), and some goals may be pursued more out of norm or habit than of need. Unfulfilled intentions can also linger and interfere with self-regulatory functioning (e.g., Masicampo, 2008; Sparrow & Wegner, 2006). Thus, effective self-regulation may necessitate both sensitivity and exposure to cues that signal disengaging, and indifference may be an easy and undramatic cue to follow.

## Implications for Social Relationships

The perception of indifference could also affect one's relationships in subtle but important ways. For instance, in Study 3 we observed that perceiving indifference toward a goal led some



participants to report that their family had lower expectations for them. Perceivers might also devalue relationships that they do not see as supportive or instrumental (Fitzsimons & Shah, 2008). As an example of this, Sanderson and Evans (2001) found that women were less satisfied in their romantic relationships when they did not think that their partners shared a similar degree of enthusiasm for their intimacy goals.

Assimilating indifference could also create cyclical problems in relationships. Perceivers who become indifferent may, in turn, become a source of indifference to others. They might also have trouble forming the intention to leave those situations, unwittingly prolonging their exposure to the indifference. Seeing a roommate sleeping in one morning, for example, might lead individuals to skip an early morning class themselves, which not only undermines their subsequent academic performance but also keeps them in close proximity to the roommate.

Despite these potential problems, assimilating indifference might also often be necessary because some goals are best not (or simply cannot be) pursued alone (Baron & Boudreau, 1987). For example, one may sometimes have to accept a roommate's laziness toward housework and let the apartment go unclean just to avoid doing it all oneself or to avoid living alone. Indeed, much of social life involves managing disparate and often incompatible pursuits (Dodge, Asher, & Parkhurst, 1989), and assimilating indifference could be smoothening. Scaling back one's efforts can also be a means of affiliating (Gollwitzer & Bargh, 1996) and might even be normative. On that note, some goals simply cannot or should not be pursued in certain situations, and it might take the indifference of others to realize it. Despite the potential costs of indifference toward a goal, the costs of overdoing its pursuit could be worse.

### Limitations and Future Directions

The way we operationalized goal commitment in the present studies was specific to achievement, and it precluded a number of interesting alternative responses to indifference. Our aim was to demonstrate that indifference discourages goal pursuit but that goal commitment moderates one's response. However, it is important to note that some committed pursuers of a goal may see indifference less as something to overcome and more as something to avoid altogether (Fishbach & Shah, 2006); they may be committed to staying away from environments that drag them down, or they might develop attentional blind spots so as to not even "see" indifference when it is there. In contrast, aggressively committed people may be focused on rooting out indifference wherever they can find it, searching for whatever heresy, infidelity, or disloyalty that could possibly exist—even if it means misperceiving a lack of motivation that is not really there. Others may be more entrepreneurial in their commitment, regarding indifference as an opportunity to advance their ambitions (perhaps at the expense of the indifferent others).

The object orientedness of the indifference could also vary, and our studies explored but a few ways in which indifference could be interpreted. Indifference could be seen simply as a lack of motivation, but depending on the circumstance it could also be seen in terms of either coldness or competence. Indifference in the form of a lack of empathy—or a disregard for others' suffering—could underpin one's definition of evil. Yet, showing indifference to pain or temptation could be a virtue. Indifference could also imply a

lack of bias and, therefore, impartiality. Indifference could be admirable or even welcome, depending on the perceiver, target, and situation.

Note that we used the term *indifference* in a general way and we did not make any assumptions about the reasons underlying different absences of motivation (e.g., idleness vs. apathy). Nevertheless, we excluded from our definition the notion of conflicted, reactive, or negative states. Coactivating a goal with negative affect can reduce its desirability (Aarts, Custers, & Holland, 2007; Aarts et al., 2004), but indifference may be more about a lack of positive signals than the presence of negative signals. Indifference, by definition, is dispassionate, and the challenge of perceiving it may not be derived from a lack of desire for a goal but be due to one's desire for it (Holroyd et al., 2006; Leary et al., 1998). There might also be something uniquely unsettling or perplexing about seeing an absence of motivation. Given the deep sense of meaning people derive from their most cherished causes, the idea of being indifferent could be more unfamiliar than the idea of being opposed to these causes. Although research on motivation has long focused on people being moved toward one end state or away from another (Lewin, 1935), it is not clear how well people can grasp the idea of not being moved at all.

### References

- Aarts, H., Custers, R., & Holland, R. W. (2007). The nonconscious cessation of goal pursuit: When goals and negative affect are coactivated. *Journal of Personality and Social Psychology*, 92, 165–178. doi:10.1037/0022-3514.92.2.165
- Aarts, H., Gollwitzer, P. M., & Hassin, R. (2004). Goal contagion: Perceiving is for pursuing. *Journal of Personality and Social Psychology*, 87, 23–37. doi:10.1037/0022-3514.87.1.23
- Abelson, R. P. (1988). Conviction. *American Psychologist*, 43, 267–275. doi:10.1037/0003-066X.43.4.267
- Arkes, H. R., & Blumer, C. (1985). The psychology of sunk cost. *Organizational Behavior and Human Decision Processes*, 35, 124–140. doi:10.1016/0749-5978(85)90049-4
- Bakker, A. B., & Schaufeli, W. B. (2000). Burnout contagion processes among teachers. *Journal of Applied Social Psychology*, 30, 2289–2308. doi:10.1111/j.1559-1816.2000.tb02437.x
- Bakker, A. B., Schaufeli, W. B., Sixma, H. J., & Bosveld, W. (2001). Burnout contagion among general practitioners. *Journal of Social and Clinical Psychology*, 20, 82–98. doi:10.1521/jscp.20.1.82.22251
- Bar, M., & Biederman, I. (1998). Subliminal visual priming. *Psychological Science*, 9, 464–468. doi:10.1111/1467-9280.00086
- Bargh, J. A. (1996). Automaticity in social psychology. In E. T. Higgins & A. W. Kruglanski (Eds.), *Social psychology: Handbook of basic principles* (pp. 169–183). New York, NY: Guilford Press.
- Bargh, J. A., & Chartrand, T. L. (2000). The mind in the middle: A practical guide to priming and automaticity research. In H. T. Reis & C. M. Judd (Eds.), *Handbook of research methods in social and personality psychology* (pp. 253–285). New York, NY: Cambridge University Press.
- Bargh, J. A., & Gollwitzer, P. M. (1994). Environmental control of goal-directed action: Automatic and strategic contingencies between situations and behavior. In W. D. Spaulding (Ed.), *Nebraska Symposium on Motivation: Vol. 41. Integrative views of motivation, cognition, and emotion* (Vol. 41, pp. 71–124). Lincoln: University of Nebraska Press.
- Bargh, J. A., Gollwitzer, P. M., Lee-Chai, A., Barndollar, K., & Trötschel, R. (2001). The automated will: Nonconscious activation and pursuit of behavioral goals. *Journal of Personality and Social Psychology*, 81, 1014–1027. doi:10.1037/0022-3514.81.6.1014

- Bargh, J. A., Green, M. C., & Fitzsimons, G. M. (2008). The selfish goal: Unintended consequences of intended goal pursuits. *Social Cognition*, 26, 534–554. doi:10.1521/soco.2008.26.5.534
- Baron, R. M., & Boudreau, L. A. (1987). An ecological perspective on integrating personality and social psychology. *Journal of Personality and Social Psychology*, 53, 1222–1228. doi:10.1037/0022-3514.53.6.1222
- Brunstein, J. C., & Olbrich, E. (1985). Personal helplessness and action control: An analysis of achievement related cognitions, self-assessments, and performance. *Journal of Personality and Social Psychology*, 48, 1540–1551. doi:10.1037/0022-3514.48.6.1540
- Carver, C. S., & Scheier, M. F. (1998). *On the self-regulation of behavior*. New York, NY: Cambridge University Press.
- Cesario, J., Plaks, J. E., & Higgins, E. T. (2006). Automatic social behavior as motivated preparation to interact. *Journal of Personality and Social Psychology*, 90, 893–910. doi:10.1037/0022-3514.90.6.893
- Chartrand, T. L., & Bargh, J. A. (1996). Automatic activation of impression formation and memorization goals: Nonconscious goal priming reproduces effects of explicit task instructions. *Journal of Personality and Social Psychology*, 71, 464–478. doi:10.1037/0022-3514.71.3.464
- Chartrand, T. L., Dalton, A., & Fitzsimons, G. J. (2007). Nonconscious relationship reactance: When significant others prime opposing goals. *Journal of Experimental Social Psychology*, 43, 719–726. doi:10.1016/j.jesp.2006.08.003
- Chartrand, T. L., Maddux, W., & Lakin, J. (2005). Beyond the perception–behavior link: The ubiquitous utility and motivational moderators of unconscious mimicry. In R. Hassin, J. Uleman, & J. A. Bargh (Eds.), *The new unconscious* (pp. 334–361). New York, NY: Oxford University Press.
- Dijksterhuis, A., Aarts, H., Bargh, J. A., & Van Knippenberg, A. (2000). On the relation between associative strength and automatic behavior. *Journal of Experimental Social Psychology*, 36, 531–544. doi:10.1006/jesp.2000.1427
- Dijksterhuis, A., & Van Knippenberg, A. (1998). The relation between perception and behavior, or how to win a game of Trivial Pursuit. *Journal of Personality and Social Psychology*, 74, 865–877. doi:10.1037/0022-3514.74.4.865
- Dik, G., & Aarts, H. (2007). Behavioral cues to others' motivation and goal pursuits: The perception of effort facilitates goal inference and contagion. *Journal of Experimental Social Psychology*, 43, 727–737. doi:10.1016/j.jesp.2006.09.002
- Dodge, K. A., Asher, S. R., & Parkhurst, J. T. (1989). Social life as a goal-coordination task. In C. Ames & R. Ames (Eds.), *Research on motivation in education: Vol. 3. Goals and cognitions* (pp. 107–135). New York, NY: Academic Press.
- Duckworth, A. L., Peterson, C., Matthews, M. D., & Kelly, D. R. (2007). Grit: Perseverance and passion for long-term goals. *Journal of Personality and Social Psychology*, 92, 1087–1101. doi:10.1037/0022-3514.92.6.1087
- Eagly, A. H., & Chaiken, S. (1993). *The psychology of attitudes*. Orlando, FL: Harcourt Brace Jovanovich.
- Fazio, R. H. (1990). A practical guide to the use of response latency in social psychological research. In C. Hendrick & M. S. Clark (Eds.), *Research methods in personality and social psychology: Vol. 11. Review of personality and social psychology* (pp. 74–97). Newbury Park, CA: Sage.
- Ferguson, M. J. (2008). On becoming ready to pursue a goal you don't know you have: Effects of nonconscious goals on evaluative readiness. *Journal of Personality and Social Psychology*, 95, 1268–1294. doi:10.1037/a0013263
- Fishbach, A., & Dhar, R. (2005). Goals as excuses or guides: The liberating effect of perceived goal progress on choice. *Journal of Consumer Research*, 32, 370–377. doi:10.1086/497548
- Fishbach, A., Friedman, R. S., & Kruglanski, A. W. (2003). Leading us not unto temptation: Momentary allurements elicit overriding goal activation. *Journal of Personality and Social Psychology*, 84, 296–309. doi:10.1037/0022-3514.84.2.296
- Fishbach, A., & Shah, J. Y. (2006). Self-control in action: Implicit dispositions toward goals and away from temptations. *Journal of Personality and Social Psychology*, 90, 820–832. doi:10.1037/0022-3514.90.5.820
- Fitzsimons, G. M., & Shah, J. Y. (2008). How goal instrumentality shapes relationship evaluations. *Journal of Personality and Social Psychology*, 95, 319–337. doi:10.1037/0022-3514.95.2.319
- Gollwitzer, P. M. (1990). Action phases and mind-sets. In R. M. Sorrentino & E. T. Higgins (Eds.), *Handbook of motivation and cognition: Foundations of social behavior* (Vol. 2, pp. 53–92). New York, NY: Guilford Press.
- Gollwitzer, P. M., & Bargh, J. A. (1996). *The psychology of action: Linking cognition and motivation to behavior*. New York, NY: Guilford Press.
- Haefel, G. J., & Hames, J. L. (2014). Cognitive vulnerability to depression can be contagious. *Clinical Psychological Science*, 2, 75–85. doi:10.1177/2167702613485075
- Higgins, E. T., Rholes, W. S., & Jones, C. R. (1977). Category accessibility and impression formation. *Journal of Experimental Social Psychology*, 13, 141–154. doi:10.1016/S0022-1031(77)80007-3
- Hoffer, E. (1955). *The passionate state of mind*. New York, NY: Harper & Row.
- Hollenbeck, J. R., Williams, C. R., & Klein, H. J. (1989). Empirical examination of the antecedents of commitment to difficult goals. *Journal of Applied Psychology*, 74, 18–23. doi:10.1037/0021-9010.74.1.18
- Holroyd, C. B., Hajcak, G., & Larsen, J. T. (2006). The good, the bad and the neutral: Electrophysiological responses to feedback stimuli. *Brain Research*, 1105, 93–101. doi:10.1016/j.brainres.2005.12.015
- Jackson, D. N. (1974). *Manual for the Personality Research Form*. Goshen, NY: Research Psychology Press.
- James, W. (1899). *Talks to teachers on psychology: And to students on some of life's ideals*. New York, NY: Holt.
- Joiner, T. E. (1994). Contagious depression: Existence, specificity to depressed symptoms, and the role of reassurance seeking. *Journal of Personality and Social Psychology*, 67, 287–296. doi:10.1037/0022-3514.67.2.287
- Kawada, C. L. K., Oettingen, G., Gollwitzer, P. M., & Bargh, J. A. (2004). The projection of implicit and explicit goals. *Journal of Personality and Social Psychology*, 86, 545–559. doi:10.1037/0022-3514.86.4.545
- Kerr, N. (1983). Motivation losses in small groups: A social dilemma analysis. *Journal of Personality and Social Psychology*, 45, 819–828. doi:10.1037/0022-3514.45.4.819
- Klinger, E. (1975). Consequences of commitment to and disengagement from incentives. *Psychological Review*, 82, 1–25. doi:10.1037/h0076171
- Kruglanski, A. W. (1996). Goals as knowledge structures. In P. M. Gollwitzer & J. A. Bargh (Eds.), *The psychology of action: Linking cognition and motivation to behavior* (pp. 599–618). New York, NY: Guilford Press.
- Kruglanski, A. W., Alon, S., & Lewis, T. (1972). Retrospective misattribution and task enjoyment. *Journal of Experimental Social Psychology*, 8, 493–501. doi:10.1016/0022-1031(72)90075-3
- Kuhl, J. (2000). A functional-design approach to motivation and self-regulation: The dynamics of personality systems and interactions. In M. Boekaerts, P. R. Pintrich, & M. Zeidner (Eds.), *Handbook of self-regulation* (pp. 111–169). San Diego, CA: Academic Press.
- Leander, N. P., & Shah, J. Y. (2013). For whom the goals loom: Context-driven goal contagion. *Social Cognition*, 31, 187–200. doi:10.1521/soco.2013.31.2.187
- Leander, N. P., Shah, J. Y., & Chartrand, T. L. (2011). The object of my protection: Shielding fundamental motives from the implicit motiva-

- tional influence of others. *Journal of Experimental Social Psychology*, 47, 1078–1087. doi:10.1016/j.jesp.2011.04.016
- Leary, M. R., Haupt, A. L., Strausser, K. S., & Chokel, J. T. (1998). Calibrating the sociometer: The relationship between interpersonal appraisals and the state self-esteem. *Journal of Personality and Social Psychology*, 74, 1290–1299. doi:10.1037/0022-3514.74.5.1290
- Lewin, K. (1935). *A dynamic theory of personality: Selected papers* (D. E. Adams & K. E. Zener, Trans.). New York, NY: McGraw Hill.
- Masicampo, E. J. (2008). *Unfulfilled goals interfere with other, unrelated pursuits* (Master's thesis). Florida State University.
- Miceli, M., & Castelfranchi, C. (2000). Nature and mechanisms of loss of motivation. *Review of General Psychology*, 4, 238–263. doi:10.1037/1089-2680.4.3.238
- Mikulincer, M. (1988). Reactance and helplessness following exposure to unsolvable problems: The effects of attributional style. *Journal of Personality and Social Psychology*, 54, 679–686. doi:10.1037/0022-3514.54.4.679
- Moskowitz, G. B., Gollwitzer, P. M., Wasel, W., & Schaal, B. (1999). Preconscious control of stereotype activation through chronic egalitarian goals. *Journal of Personality and Social Psychology*, 77, 167–184. doi:10.1037/0022-3514.77.1.167
- Myrseth, K. O. R., Fishbach, A., & Trope, Y. (2009). Counteractive self-control: When making temptation available makes temptation less tempting. *Psychological Science*, 20, 159–163. doi:10.1111/j.1467-9280.2009.02268.x
- Pomerantz, E. M., Chaiken, S., & Tordesillas, R. S. (1995). Attitude strength and resistance processes. *Journal of Personality and Social Psychology*, 69, 408–419. doi:10.1037/0022-3514.69.3.408
- Preacher, K. J., Rucker, D. D., & Hayes, A. F. (2007). Addressing moderated mediation hypotheses: Theory, methods, and prescriptions. *Multivariate Behavioral Research*, 42, 185–227. doi:10.1080/00273170701341316
- Provine, R., & Hamernik, H. B. (1986). Yawning: Effects of stimulus interest. *Bulletin of the Psychonomic Society*, 24, 437–438. doi:10.3758/BF03330574
- Roth, S., & Kubal, L. (1975). Effects of noncontingent reinforcement on tasks of differing importance: Facilitation and learned helplessness. *Journal of Personality and Social Psychology*, 32, 680–691. doi:10.1037/0022-3514.32.4.680
- Sanderson, C. A., & Evans, S. M. (2001). Seeing one's partner through intimacy-colored glasses: An examination of the processes underlying the intimacy goals-relationship satisfaction link. *Personality and Social Psychology Bulletin*, 27, 463–473. doi:10.1177/0146167201274007
- Shah, J. Y. (2003). Automatic for the people: How representations of significant others implicitly affect goal pursuit. *Journal of Personality and Social Psychology*, 84, 661–681. doi:10.1037/0022-3514.84.4.661
- Shah, J. Y., Friedman, R. S., & Kruglanski, A. W. (2002). Forgetting all else: On the antecedents and consequences of goal shielding. *Journal of Personality and Social Psychology*, 83, 1261–1280. doi:10.1037/0022-3514.83.6.1261
- Shah, J. Y., Higgins, E. T., & Friedman, R. S. (1998). Performance incentives and means: How regulatory focus influences goal attainment. *Journal of Personality and Social Psychology*, 74, 285–293. doi:10.1037/0022-3514.74.2.285
- Shah, J. Y., & Kruglanski, A. W. (2000). Aspects of goal networks: Implications for self-regulation. In M. Boekaerts, P. R. Pintrich, & M. Zeidner (Eds.), *Handbook of self-regulation* (pp. 85–110). doi:10.1016/B978-012109890-2/50033-0
- Shah, J. Y., & Kruglanski, A. W. (2002). Priming against your will: How accessible alternatives affect goal pursuit. *Journal of Experimental Social Psychology*, 38, 368–383. doi:10.1016/S0022-1031(02)00005-7
- Sparrow, B., & Wegner, D. M. (2006). Unpriming: The deactivation of thoughts through expression. *Journal of Personality and Social Psychology*, 91, 1009–1019. doi:10.1037/0022-3514.91.6.1009
- Tesser, A. (1988). Toward a self-evaluation maintenance model of social behavior. *Advances in Experimental Social Psychology*, 21, 181–227. doi:10.1016/S0065-2601(08)60227-0
- Triplett, N. (1898). Dynamogenic factors in pacemaking and competition. *American Journal of Psychology*, 9, 507–533. doi:10.2307/1412188
- Trope, Y., & Fishbach, A. (2000). Counteractive self-control in overcoming temptation. *Journal of Personality and Social Psychology*, 79, 493–506. doi:10.1037/0022-3514.79.4.493
- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology*, 54, 1063–1070. doi:10.1037/0022-3514.54.6.1063
- Wiesel, E. (1999, April 12). *The perils of indifference* [Video file]. Retrieved from [http://www.youtube.com/watch?v=6\\_RwGmYHyJ0](http://www.youtube.com/watch?v=6_RwGmYHyJ0)
- Wills, T. A. (1994). Self-esteem and perceived control in adolescent substance use: Comparative tests in concurrent and prospective analyses. *Psychology of Addictive Behaviors*, 8, 223–234. doi:10.1037/0893-164X.8.4.223
- Winkielman, P., Berridge, K. C., & Wilbarger, J. L. (2005). Unconscious affective reactions to masked happy versus angry faces influence consumption behavior and judgments of value. *Personality and Social Psychology Bulletin*, 31, 121–135. doi:10.1177/0146167204271309
- Wittenbrink, B., Judd, C. M., & Park, B. (2001). Spontaneous prejudice in context: Variability in automatically activated attitudes. *Journal of Personality and Social Psychology*, 81, 815–827. doi:10.1037/0022-3514.81.5.815
- Wrosch, C., Scheier, M. F., Miller, G. E., Schulz, R., & Carver, C. S. (2003). Adaptive self-regulation of unattainable goals: Goal disengagement, goal reengagement, and subjective well-being. *Personality and Social Psychology Bulletin*, 29, 1494–1508. doi:10.1177/0146167203256921
- Zhang, Y., Xu, J., Jiang, Z., & Huang, S. C. (2011). Been there, done that: The impact of effort investment on goal value and consumer motivation. *Journal of Consumer Research*, 38, 78–93. doi:10.1086/657605

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