The Object of My Protection: Shielding Fundamental Motives from the Implicit Motivational Influence of Others

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Abstract

Goal shielding theory suggests that one’s focal pursuits automatically inhibit the activation of interfering goals (Shah, Friedman, & Kruglanski, 2002); however, it is not entirely clear how individuals come to identify what constitutes “interfering”. Three studies examine how this identification process may be guided by fundamental social motives that individuals possess, particularly in social situations wherein goals are primed through mere exposure to others’ goal-directed behavior ("goal contagion", Aarts, Gollwitzer, & Hassin, 2004). Participants’ fundamental motives for positive self-regard (Study 1), autonomy (Study 2), and distinctiveness (Study 3) were either manipulated or measured and participants read scenarios that manipulated the goal-directed behavior of a target other. Results indicated that participants inhibited the activation of goals being primed by others when the implicit influence interfered with their fundamental motives in some way. These findings suggest that fundamental motives can guide whether individuals will catch goals from others or shield themselves from such influences.

Keywords: goals, inhibition, contagion, self-regulation, social influence
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Screenwriter Sidney Howard once suggested that half of knowing what you want is knowing what you must give up before you will get it. Most of us have a diverse variety of goals we are pursuing and yet only limited resources to pursue each of them (Shah, 2005). This makes it unlikely that any single goal will get to be pursued from start to finish without interruption, yet relatively little is known about how we manage to separate our pursuits and keep them from interfering with each other. Given how many goals we might want to pursue, as well as research suggesting how easily goals are invoked in us by our social environment (Aarts, et al., 2004), we must be wary of pursuits getting entangled in one another. Indeed, beyond having to manage the pull of interfering personal goals (Cantor & Blanton, 1996; also Shah, et al., 2002), we must also manage the pull of interfering social influences (see also Dodge, Asher, & Parkhurst, 1989). We may try to do this consciously (e.g., by resolving to “not mix business with pleasure”), but many social influences are implicit and can blur the boundaries between goals in very subtle ways. To protect our most fundamental pursuits, then, we may need to rely on implicit mechanisms to identify what goals to adopt from our social environment and, importantly, what goals to shield ourselves from.

Separating one’s pursuits might require actively ignoring one worthy goal (at least temporarily) in order to protect another that is more fundamental. Much how we put temptations and other pitfalls out of our minds (Fishbach, Friedman, & Kruglanski, 2003; Moskowitz, Gollwitzer, Wasel, & Schaal, 1999), so too might we inhibit worthy goals when they interfere with our grander ambitions. However, unlike the momentary allure of temptations (Leander,
Shah, & Chartrand, 2009), worthier goals can linger on in our minds if they go unfinished (Kuhl & Helle, 1986; Kuhl & Weiss, 1985; Zeigarnik, 1938). Wegner’s (1994) work on ironic monitoring might even suggest that our attention is only further drawn towards that which we are trying to ignore. This may be especially relevant to how we react to social cues that would activate goals in our minds automatically (Bargh, 1990; Chartrand & Bargh, 1996); we must be able to identify and inhibit such influences before they invoke interfering goals that we cannot ignore. This suggests a need to proactively protect our most fundamental pursuits from certain environmental influences—a process that first requires knowing what cues to look for in one’s environment.

Past research suggests that one’s focal goals automatically inhibit the activation of interfering goals (“goal shielding”, Shah, et al., 2002), but yet to be understood is how individuals identify what makes another goal “interfering” in the first place. The interfering goal in past work was always obvious: study participants were directly primed with alternatives that were inherently incompatible with the focal goal (e.g., eating dessert versus dieting, Fishbach & Shah, 2006; see also Shah, et al., 2002). However, situational factors can often pit unrelated goals against each other, creating interference in unpredictable ways. A goal to earn money, for instance, might itself be worthy but may nevertheless need to be inhibited when the current opportunity to pursue it is too demeaning, servile, or stifling, and thus interferes with other important needs. Consequently, protecting one’s fundamental pursuits from worthy yet interfering goals may require sensitivity to the social contexts surrounding any goals being primed.

This paper attempts to examine how goal shielding unfolds in light of the challenge of having to identify potential interference in one’s often-complex social environment, where goal
cues may be pervasive and one can be pulled in many directions (Shah & Kruglanski, 2002). So subtle are these motivational influences that even mere exposure to others’ goal-directed behavior can suffice to implicitly pull individuals towards “catching” and pursuing a similar goal for themselves ("goal contagion", Aarts, et al., 2004). Yet for obvious reasons one cannot mindlessly take on every goal one sees in others; the process must be selective. History is undoubtedly full of cautionary tales of individuals losing their sense of self in social situations, presumably because they could not protect their fundamental motives from being undermined by others’ influence. Therefore, one’s own motives may need to proactively facilitate vigilance to cues that trigger interfering goals (Moskowitz, Ignarri, Li, & Stone, 2010). This way, one can screen for and inhibit only those influences that interfere with one’s own specific motives, while still remaining open to other worthy opportunities for goal switching.

**Seeing What We Want and Wanting Not to See**

Goal shielding involves not thinking about interfering pursuits, but like trying to not think about a “White Bear” (Wegner, 1994), one must know what is one putting out of mind. In short, one must be vigilant to potential sources of interference. Like other chronic and longstanding pursuits, we expect that individuals’ fundamental motives do indeed maintain such vigilance—even when they are not being focally pursued. Research on the inhibition of temptations, for instance, has shown that even while inactive, individuals’ longstanding and chronic goals remain sensitive to potential interference in the environment—activating spontaneously to override the implicit pull of temptations that would undermine them (Fishbach, et al., 2003). Individuals’ fundamental motives might operate in a similar manner: screening for contextual cues indicating what goals are potentially interfering, and then inhibiting the activation of those goals before their interfering potential can be realized.
This notion that fundamental motives remain chronically vigilant to interference is supported by a long history of work showing that individuals’ motives help them identify blips of meaning when monitoring their environment for any cues that are goal-relevant (Kelly, 1955). Activating fundamental motives for self-protection, for instance, can bias how individuals identify the emotions of Black and Arab men (potential threats, Maner, et al., 2005). Individuals are also more efficient at appraising motivationally relevant environmental cues (Shah & Higgins, 2001), which can facilitate the identification of relevant interferences in the environment (Shah, Higgins, & Friedman, 1998; Wegner, 1994). Such motivationally biased screening of the environment can also facilitate behavioral tendencies to avoid such interference when it is encountered (Fishbach & Shah, 2006), further helping to protect fundamental pursuits over the long-term.

The present set of studies seeks to examine what is picked out for “screening” in one’s social environment. Understanding that merely bringing a goal to mind can pull at one’s attention (Moskowitz, 2002; Shah & Kruglanski, 2002), it is easy to imagine how individuals who are at all socially active face countless potential interferences in everyday life (Lewin, 1935; Miller, 1944). Situational factors can easily link goals to undesirable implications (Aarts, Custers, & Holland, 2007), so individuals must remain sensitive to the broader context surrounding a goal in order to know how adopting it might affect them. In a demonstration of such context sensitivity, Aarts and colleagues (2004) found that when a target is pursuing casual sex in a socially inappropriate manner (i.e., he is an expectant father), study participants would devalue the idea of casual sex rather than catch that goal themselves. Reminiscent of Trope and Fishbach’s (2000) model of counteractive self-control, these participants overrode the casual sex goal when contextual factors linked it to cheating behavior and thus caused the goal to interfere
with another, perhaps more fundamental motive. Such context sensitivity may be what helps individuals regulate the timing of environmentally primed goals, inhibiting (for the time being) any that the situation renders incompatible with one’s fundamental motives.

Fundamental motives, then, might determine how individuals react upon perceiving others’ goal pursuits; after inferring from a target’s behavior what goal he or she is pursuing, individuals might either catch or inhibit that goal themselves depending on its current implications for their fundamental motives. This notion that a goal can be made salient but not adopted is drawn from Devine’s classic (1989) work suggesting that many people may know a stereotype, but to some that stereotype is to be adopted and to others it is to be inhibited (Moskowitz, et al., 1999; Moskowitz & Li, 2010). Temptations, too, can be activated by environmental cues and be either adopted or inhibited as a function of their facilitative versus interfering qualities (Fishbach, et al., 2003; Leander, et al., 2009). We assume the same to be true for goals that are potentially caught from others: whereas some individuals may be pulled towards pursuing that goal themselves, others may override such influence by reacting to it as an anti-goal—something to distance themselves from (Carver & Scheier, 1998). Such distancing may be necessary given the potential difficulty of ignoring otherwise worthy goals. In short, fundamental motives might often shield perceivers from interfering motivational influences, leading those perceivers to ignore or even contrast against the goals they infer in other people.

The Present Research

We examine three fundamental motives that may require inhibition of goals and motives we might typically “catch” from others. Goal contagion can be construed as a type of motivational imitation (Aarts, et al., 2004), which in some contexts (or to some individuals) might be seen as capitulation to others’ superiority, authority, or way of thinking. Therefore,
perceivers might readily identify the goals inferred in others as interfering with their needs for positive self-regard, autonomy, or distinctiveness—needs that are considered fundamental to individuals’ sense of self and are often invoked in interpersonal situations to override social influences (Brehm, 1966; Brewer, 1991; Tesser, 1988). Consistent with a goal shielding perspective, such motivational “override” often occurs at the expense of other worthy goals: A social challenge to individuals’ need for positive self-regard can lead them to regulate that motive by subsequently making larger (and worse) decisions on a gambling task (Baumeister, Heatherton, & Tice, 1993); individuals with high autonomy needs often resist significant others’ goals for them to work hard by showing reduced performance on an intellectual task (Chartrand, Dalton, & Fitzsimons, 2007); and men who wish to distinguish themselves in order to better attract a mate will often go against group preferences and risk isolating themselves (Griscevicius, Goldstein, Mortensen, Cialdini, & Kenrick, 2006). Thus, we expect these three fundamental motives (positive self-regard, autonomy, distinctiveness) to facilitate goal shielding when another person’s implicit influence interferes with them in some way.

Given that both goal contagion and goal shielding occur implicitly, our analysis assumes that individuals will inhibit the pull of others’ goals with minimal conscious intent or awareness. Also, goal contagion often begins with perceivers implicitly inferring goals from a target other’s behavior (Aarts, et al., 2004; Dik & Aarts, 2007), so we expect the “screening” by one’s fundamental motives to occur implicitly as well and rely on a similar inferential processes. To shield oneself from goal contagion, then, one must infer not just a goal in another person but also the potential for that person’s implicit influence to interfere with one’s fundamental motives. Just as perceivers use minimal interpersonal cues to infer goals in others (Hassin, Aarts, & Ferguson, 2005; Moskowitz & Gesundheit, 2009), perceivers might use similar cues to infer the potential
interference of others’ goals. Individuals’ past experiences of feeling controlled, for instance, can be spontaneously re-invoked in future situations that share similar cues (e.g., a conditioned tone, Ratelle, Baldwin, & Vallerand, 2004). Thus, we expect individuals to make their inferences from a broad range of cues, including heuristics about the situation (Study 1), their own motive strength (Study 2), and even the identity of the target in whom the goal is inferred (Study 3).

Participants in each study read a scenario in which a target person’s implicit influence somehow interfered with a fundamental motive of theirs (or not) while the target person was in pursuit of some particular goal (or not). We then assessed participants’ own salience of the inferred goal to see whether the goal had activated in their own minds or been inhibited. It was generally hypothesized that when the target person’s influence in some way interfered with a fundamental motive (for positive self-regard, Study 1; autonomy, Study 2; distinctiveness, Study 3), participants would shield themselves from that person’s implicit influence—namely, the goal being inferred from that target’s behavior. Consistent with past work, participants were not expected to report any conscious awareness of any goal contagion or goal shielding that may have occurred.

Study 1: Positive Self-Regard

Since James (1890), psychologists have argued that people have a fundamental need to view themselves positively. However, a large part of individuals’ self-views are made in comparison to others (e.g., Festinger, 1954; Leary, Tambor, Terdal, & Downs, 1995), and such social comparisons may undermine individuals’ positive self-views when others are outperforming them in a valued goal domain. Indeed, although individuals are often inspired by others’ successes, being consistently outperformed by someone can be deflating (Lockwood & Kunda, 1997; Tesser, 1988). Furthermore, when it is clear to individuals that their own ability or
effort in a self-relevant goal domain is inferior, they will often try to protect their positive self-regard by distancing themselves from that goal or from the other person (Tesser, 1988). The fundamental motive for positive self-regard, then, may facilitate shielding from goals being primed by others whose goal performance is consistently superior to their own.

In this first study we hypothesized that participants would adopt and pursue a goal they inferred in someone whose performance at the goal was inferior to their own (a cue that might facilitate goal contagion), but they would inhibit the inferred goal when the other person’s goal performance was superior (goal shielding). We instructed participants to imagine that a friend’s achievement performance was either consistently superior or inferior to their own, after which they were given behavioral cues suggesting that their friend was currently either pursuing an achievement goal or not. Participants then completed a word judgment task to assess their own subsequent salience of an achievement goal, which would indicate whether goal contagion or goal shielding occurred in response to their exposure to the other person’s implicit influence.

To highlight the motivational nature of this sensitivity, we also tested the moderating role of participants’ grade-point-averages (GPAs) on their reactions to this type of influence. Although GPA can be a rather coarse measure of motivation (as GPA may reflect individuals’ goal commitment or ability—or both), it is nevertheless a useful way to identify participants whose positive self-regard may be linked to their success in achievement. Just as individuals will only catch a goal from others when the goal matters to them (Aarts, et al., 2004), so, too, might individuals only show goal shielding when the interference is self-relevant (see, for instance, Lockwood & Kunda, 1997; Tesser, 1988). Therefore, our results would be supported if goal contagion and goal shielding occurred primarily just among participants to whom high performance in achievement may be self-relevant—those with higher GPAs, and not those with
lower GPAs. Testing for moderation by GPA also allowed us to ensure that participants’
reactions to the experimental manipulations were not simply a function of the goal being paired
with a positive or negative valence (Aarts, et al., 2007; Custers & Aarts, 2005), but rather a
function of individuals’ own chronic needs and tendencies.

Method

Participants

Sixty-one Duke University undergraduate students (age $M = 20.72$, 43% female)
participated in exchange for a payment of $5. Gender did not significantly affect the presented
results either singularly or interactively and will not be discussed further.

Procedure

Social Comparison and Goal Manipulations. We used a 2 (Friend’s Relative
Performance: superior vs. inferior) x 2 (Friend’s Current Goal: achievement-related vs.
unrelated) factorial design. This experiment was conducted two weeks prior to the end of the
academic year. After completing an unrelated computer task lasting approximately 10 minutes,
participants were first given the social comparison manipulation: “Imagine that a close friend
has been doing very (well /poorly) this semester, consistently getting (higher /lower) grades than
you”. Such wording was meant to either interfere with participants’ positive self-regard or not if
academics mattered to them. Next, participants were led to infer that their friend was currently in
pursuit of an achievement goal or not: “An interesting social activity is coming up this weekend,
and you have both been invited. While deciding if you want to go, you learn that your friend is
instead spending the entire weekend (writing papers and preparing for exams / getting ready for
the summer).”
Goal Salience Measure. Goal activation in this study was measured through a modified category salience task. Participants were informed that we were examining their ability to sort words into one of two language categories. They were instructed to quickly and accurately decide whether each of a series of words appearing on-screen belonged to the category “academic” or the category “social”. Participants made their judgments by pressing one of two buttons on the keyboard. Reminder labels for the two categories appeared at the bottom of the screen between each trial, and each trial was briefly preceded by the phrase, “get ready for next trial”, followed by a string of asterisks (*******) to focus participants’ attention towards the center of the screen. Participants received four practice trials. Participants were then presented with 20 control words and 10 target words in random order. 80% of the target and control words described behaviors, 20% described situations or outcomes. Half the control words were obviously academic (e.g., effort, attain) and half were obviously social (e.g., popular, boast), and participants were expected to place these in their appropriate categories. The dependent measure regarded how participants judged the 10 target words, because they were ambiguous in that they may have been applicable to either academics or socializing (e.g., email, discussion). Following a long tradition of assessing priming effects through participants’ biased interpretations of ambiguous social stimuli (Higgins, Rholes, & Jones, 1977), it was hypothesized that those with an achievement goal active in memory would judge more of the target (ambiguous) words as belonging in the academic category, reflecting biased sensitivity towards that goal in their evaluations.1

Participants entered their cumulative grade-point averages (GPAs) at the end of the study. Suspicions were then assessed before participants were thanked and fully debriefed. Note that no participants reported any suspicions regarding the nature or true purpose of this study nor could
any participants accurately indicate how the scenario might have affected their subsequent responding, suggesting the implicit nature of this type of influence.

**Results & Discussion**

Two participants were removed prior to the analysis for answering their cell phones during the experimental session. A 2 (Friend’s Relative Performance: superior vs. inferior) x 2 (Friend’s Current Goal: achievement-related vs. unrelated) analysis of variance (ANOVA) was then conducted on participants’ goal salience scores (higher numbers representing greater goal salience). As illustrated in Figure 1, results indicated a significant crossover interaction in the predicted directions, $F(1, 55) = 4.76$, $MSE = 2.22$, $p < .04$. Averaging across all participants, there was a marginally positive effect of the goal priming manipulation (i.e., goal contagion) when the friend’s academic performance was inferior ($p < .07$), but a negative trend of the goal priming manipulation (i.e., goal shielding) when the friend’s academic performance was superior ($p < .15$). To more closely examine participants for whom academic achievement may be linked to their positive self-regard, we then conducted a regression analysis predicting participants’ goal salience scores from their social comparison condition, goal priming condition, and GPAs. Results indicated the same two-way interaction as reported above, $B = -.44$, $F(1, 51) = 5.44$, $p < .03$, but also a positive effect of GPA, $B = .58$, $F(1, 51) = 5.71$, $p < .03$, and, importantly, a significant three-way interaction of social comparison condition, goal priming condition, and GPA, $B = -.63$, $F(1, 51) = 6.64$, $p < .02$. As anticipated, the experimental manipulations interacted to affect higher GPA participants, $B = -.92$, $F(1, 51) = 8.85$, $p < .005$, but not lower GPA participants ($F < 1.0$). Among these higher GPA participants, simple slopes analyses indicated a significantly positive effect of the goal priming manipulation (goal contagion) when the friend’s academic performance was inferior, $B = 1.13$, $F(1, 51) = 8.35$, $p < .01$, but a
significantly negative effect (goal shielding) when the friend’s performance was superior, $B = -1.05$, $F(1, 51) = 4.59$, $p < .04$. In other words, higher GPA participants either adopted or inhibited the goal inferred from the friend’s behavior depending on how the friend’s goal performance compared to their own.

This initial study indicates that the motive for positive self-regard moderated the nature and direction of participants’ reactions to a friend’s pursuit of achievement. Of note is that both the goal contagion and goal shielding effects occurred primarily just among participants with higher GPAs—those who may be most sensitive to the type of social comparison being made and goal being primed (achievement). In sum, these results indicate that the need to regulate one’s positive self-regard can override individuals’ desire to pursue a valued goal in a given situation, facilitating goal shielding against another person’s implicit motivational influence.

One minor limitation of this study is that GPA may be only an indirect measure of individuals’ need for positive self-regard in their achievement pursuits. As such, in this next study we measure the fundamental motive more directly and test how the strength of the fundamental motive can moderate whether or not interference is inferred from a target’s implicit influence.

**Study 2: Autonomy**

A second fundamental motive that broadly guides social behavior is individuals’ desire to maintain a sense of freedom and self-directedness in their behavior (Deci & Ryan, 1985). Many individuals prefer to pursue their goals autonomously rather than at the direction of others, and a long history of research shows that individuals will often push back against social pressures by reacting against the goals that others want them to pursue (Brehm, 1966), even if that means (temporarily) going against other worthy pursuits (Chartrand, et al., 2007; Ringold, 2002).
However, past work has only looked at social influences that are (or have been) explicitly imposed on (or expressed for) the individual (e.g., Chartrand, et al., 2007), and not for implicit motivational influences as subtle as goal contagion. Nevertheless, individuals with a strong autonomy goal may screen for the subtlest of cues indicating the potential controlling influence of others, and then react against such influence by inhibiting whatever goals are being primed by those others—even if the goal is unrelated to autonomy (e.g., volunteering in disaster relief). In this next study, then, we test how the strength of individuals’ autonomy motivation moderates their tendency to shield themselves from implicit motivational influences generally.

Individual differences in the need for autonomy are typically assessed via measures of *trait reactance*, which represents individuals’ chronic tendency to push back against controlling social influences (Brehm, 1966; Hong, 1992). Interestingly, the cognitive-motivational processes underlying reactance and goal contagion share some common underpinnings, in that both are triggered when inferring motives in others (Aarts, et al., 2004; Ringold, 2002), both are moderated by individuals’ need (for the goal or for autonomy, Aarts, et al., 2004; Brehm, 1966), and both can operate outside conscious awareness to guide behavior automatically (Aarts, et al., 2004; Chartrand, et al., 2007). As such, using a trait reactance measure ensures that any goal shielding we observe is indeed due to participants’ need for autonomy moderating the interference inferred from a target’s implicit influence.

Participants’ trait reactance was assessed before they imagined that their roommate was either seeking to volunteer in hurricane relief efforts or not. Participants then completed a pictorial version of the goal salience task used in Study 1. To better demonstrate the potential real-world implications of any observed effects, participants also reported their explicit desire to volunteer in hurricane relief (which was ongoing at the time this study was conducted). It was
predicted that highly-reactant participants (those with stronger autonomy motivation) would react against their roommate’s implicit motivational influence by shielding themselves from the roommate’s goal to volunteer, but their low-reactance counterparts would instead show a goal contagion effect in response to their roommate’s goal to volunteer. No reactance effects were expected when the roommate was not in pursuit of any goal in particular.

Method

Participants

One hundred fourteen Duke University undergraduate psychology students (age $M = 19.22$, 51% female) participated in return for course credit. Gender did not significantly affect the presented results either singularly or interactively and will not be discussed further.

Procedure

The experiment was conducted in the spring following the 2005 hurricanes Katrina and Rita, which caused widespread damage along the Southern Coast and received extensive media attention. Participants first completed a battery of filler questionnaires lasting approximately 15 minutes. Embedded among these questionnaires was the 11-item Hong Reactance Scale (Hong, 1992; Hong & Faedda, 1996), in which participants indicated their agreement with a series of statements assessing their trait need for autonomy (e.g., “I consider advice from others to be an intrusion”, rated 1=strongly disagree to 5=strongly agree). Responses to these items were summed and standardized to form a trait reactance score.

Participants then read a scenario in which they imagined having the option to join their roommate on a trip to the Southern Coast over Spring Break. The scenario described a (fictitious) university program that was sponsoring relief efforts for a particular family whose home had been damaged by the hurricane. For the goal priming manipulation, it was not
explicitly stated whether or not their roommate intended to participate in this program (and thus, spend their Spring Break working on the house), but participants did get a “glimpse” of what their roommate had packed for the trip. As depicted in the screen images, participants in the “volunteering goal” condition saw a pair of (unisex) work boots, a tool belt, work lamp, and various cleaning supplies, whereas participants in the control condition saw a (unisex) bathrobe, handheld television, fold-out lawn chair, and a portable fan. Thus, participants “saw” that their roommate had either packed for a week of volunteer work or had packed in a way not suggesting any goal in particular.

*Goal salience measure.* Immediately following the goal priming manipulation, participants completed a pictorial version of the goal salience task used in Study 1. This task was introduced by suggesting that they were going with their roommate, and they needed to decide which of their roommate’s belongings would facilitate their own goals for the trip. Participants were instructed to press one of two keys depending on whether the presented object would help them *work* or help them *relax*. Participants were given four practice trials before they were presented with 30 images of objects in random order, 10 of which were target images. Reminder labels for the two categories (“work” and “relax”) appeared at the bottom of the screen between trials. Half the control items were clearly work-related (*tools, cleaning supplies, etc.*), and half were clearly recreational (*portable stereo, beach ball, etc.*). The 10 target items were all ambiguous in that they could fit into either category (*towels, sunglasses, etc.*). The number of target images (ambiguous objects) participants categorized as helping them work was summed to form participants’ salience of a volunteering goal.

*Desire to volunteer.* Participants then answered questions regarding their motivation to volunteer. Two items assessed their prospective likelihood of helping the family in need (e.g., *If*...
your Spring Break lasted 7 days, how many of those days would you have spent working on the house?). Two more addressed their general motivation to help others (e.g., “How generally motivated are you to offer relief for hurricane victims?” Rated 1=Not at all to 7=Very much). The next three ratings were their willingness to volunteer if asked (rated 1=Definitely No to 5=Definitely Yes), amount of time they would be willing to commit (rated 0=None to 6=As much as possible), and the degree of work difficulty they would undertake (rated 0=None to 6=Very difficult—if needed). Responses to these questions were standardized and summed to form a Desire to Volunteer score (α = .81).

Suspicions regarding the experiment were then assessed, after which they were thanked and fully debriefed. Although five participants reported a belief that the study was generally seeking to increase their volunteering, no participants reported any suspicions regarding the nature or true purpose of this study nor did any participants accurately indicate how the scenario might have affected their subsequent responding. Including those five participants did not change the presented results.

Results & Discussion

Effects on desire to volunteer. Regression analysis was used to predict participants’ desire to volunteer from their goal priming condition (Roommate’s Current Goal: volunteering-related vs. unrelated), trait reactance, and the interaction of these two variables. As illustrated in Figure 2, there was a marginally negative effect of trait reactance, $B = -.15$, $F(1, 110) = 2.90, p < .10$, and a negative disordinal interaction of participants’ goal priming condition and trait reactance, $B = -.22$, $F(1, 110) = 6.29, p < .02$. Simple slopes analysis indicated that trait reactance reliably predicted participants’ desire to volunteer only when their roommate had goal to volunteer, $B = -.37$, $F(1, 110) = 8.36, p < .01$, and not when the friend had a goal unrelated to volunteering ($F <$
1.0). Whereas low-reactance participants’ desire to volunteer increased when their roommate was pursuing a volunteering goal, high-reactance participants’ desire to volunteer decreased. In Chartrand et al.’s (2007) nonconscious reactance study, simple slopes were calculated at two standard deviations above and below the mean, and when we did the same in the present study, the effects of the goal prime were significant both among high-reactance participants, $B = .46$, $F(1, 110) = 5.41, p < .03$, and low-reactance participants, $B = -.46, F(1, 110) = 5.24, p < .03$. At one standard deviation above and below the mean reactance level, these effects were still marginally significant ($B = .23, F(1, 110) = 3.42, p < .07$, and $B = -.23, F(1, 110) = 3.23, p < .08$). In sum, low autonomy motivation facilitated goal contagion, but high autonomy motivation facilitated goal shielding.

*Effects on goal salience.* Regression analysis was then used to predict participants’ salience of a volunteering goal from their goal priming condition (Roommate’s Current Goal: volunteering-related vs. unrelated), trait reactance, and the interaction of these two variables. Note that one participant was excluded from this analysis because the experimental computer did not save the person’s goal salience data. As illustrated in Figure 3, there was a main effect of the goal priming condition, $B = .25, F(1, 109) = 8.51, p < .005$, a marginally negative main effect of trait reactance, $B = -.15, F(1, 109) = 3.31, p < .08$, and a negative two-way interaction of these variables, $B = -.18, F(1, 109) = 4.87, p = .03$. Simple slopes analysis indicated that trait reactance predicted whether participants caught or inhibited their roommate’s goal to volunteer, $B = -.34, F(1, 109) = 7.59, p < .01$, but, as expected, there was no effect of trait reactance when the roommate did not have a goal to volunteer ($F < 1.0$). Whereas less reactant participants indicated heightened goal salience as a function of the goal manipulation, $B = .79, F(1, 109) = 11.32, p < .001$, highly reactant participants indicated no change in goal salience, ($F < 1.0$).
In sum, highly reactant participants—those with strong autonomy motivation—seemed to shield themselves from their roommate’s goal to volunteer by showing less desire to volunteer than their low-reactance counterparts, who instead showed a pattern of goal contagion. These results extend the findings of Study 1 by demonstrating that the strength of a fundamental motive can moderate the kinds of goal cues individuals screen for in their social environment.

A potential limitation of this study is that at the time data was being collected for it, volunteering in hurricane relief was heavily publicized and perhaps already highly salient to individuals—even to those who had no intention to volunteer. This might explain why there was a main effect on participants’ goal salience but not their desire for the goal, and why highly reactant participants showed no less salience of a volunteering goal than participants in the control condition. Moreover, that volunteering was such a public event at the time may lead some readers to wonder whether reactant participants were indeed resisting their roommate’s motivational influence, specifically, and not the broader cultural norm to volunteer. However, the lack of reactance effects among participants in the control condition suggests that reactant participants were indeed specifically responding to their roommate’s influence. Nevertheless, normative influences could invoke another fundamental motive: the need to be distinct from others—to not be too typical or mainstream. In a third and final study, then, we examine how individuals seek to differentiate themselves from the norm by shielding themselves from the goals of others who are overly identified with a particular group.

Study 3: Distinctiveness

In this third study we examine individuals’ fundamental motivation to distinguish themselves from others. Whereas Studies 1 and 2 examined shielding from others whose behavior was identified as interfering, the present study examines shielding from others whose
very identities are interfering—where individuals inhibit others’ implicit influences out of a concern for being too much like them. Although individuals may possess a fundamental need for social acceptance and belonging (Baumeister & Leary, 1995), so too do individuals seem to possess a competing need to be unique and different from others in their ingroup (McGuire & Padawer-Singer, 1976; Snyder & Fromkin, 1977). College students, for instance, must manage their pursuit of social acceptance while also striving to distinguish themselves from their peers, which may explain why they suffer the same losses of self-esteem from average feedback as they do from blatantly negative feedback (Leary, Haupt, Strausser, & Chokel, 1998). Indeed, Brewer’s (1991) model of optimal distinctiveness suggests that making people feel overly assimilated with their ingroup can trigger distinctiveness striving meant to overcome such excessive belonging. According to Brewer, people seek to maintain a self-construal that optimizes both their belongingness and distinctiveness motives, so they might allow themselves to be similar to one person in particular (e.g., ‘be like Mike’) but not to everyone (e.g., ‘be like all Mikes’). As such, distinctiveness motivation could lead individuals to shield themselves from goals associated with others who are too assimilated with the ingroup.

Recent work suggests that goal contagion is more prevalent among ingroup members (Loersch, Aarts, Payne, & Jefferis, 2008), but we argue that there are limits to one’s susceptibility to the influence of ingroup members. Although one might readily catch goals from a close college friend (e.g., Leander, et al., 2009), one may still shield themselves from the implicit motivational influence of a nondescript other whose identity is lost in his or her ingroup membership (e.g., “a typical college student”). Indeed, participants in Brewer’s (1991) classic study devalued their own group membership after being instructed that they were being assigned subject ID’s in order to depersonalize them so their responses reflected only that of typical
college students. Although Brewer used an overt and explicit method to invoke a distinctiveness motive, we expect similar effects to occur among participants who are merely exposed to the goal pursuits of a “typical college student”—we expect individuals to strive to distinguish themselves from such a depersonalized identity by shielding themselves from any goals they infer from that person’s behavior.

Participants in the present study were instructed to imagine either a “typical college student” or “close college friend” to be in pursuit of a goal to earn money (or not). Participants then reported their own desire for money and we later assessed their job preferences to examine whether the effects of the experimental manipulations on participants’ immediate desire for money also indirectly shaped their later sensitivity to pay when assessing various internships. It was predicted that a “typical college student” would elicit goal shielding, whereas a “close college friend” would elicit goal contagion.

Method

Participants

Eighty-seven Duke University undergraduate psychology students (age $M = 19.07$, 45% female) participated in return for course credit. Gender did not significantly affect the presented results either singularly or interactively and will not be discussed further.

Procedure

A 2 (Distinctiveness Prime: present vs. absent) x 2 (Target’s Current Goal: money-related vs. unrelated) factorial design was used. After completing unrelated computer tasks and questionnaires lasting approximately 30 minutes, participants read a scenario that either invoked distinctiveness motive in participants or not: “Imagine that a (typical college student / close college friend) has just finished final exams and is looking forward to a two-week break”. Next,
participants were led to infer that this person was currently in pursuit of goal to earn money or not (as used by Aarts, et al., 2004), “While most people typically take vacations, this person plans to (work at a local business / volunteer at a local community center)”.

**Desire for Money.** The extent to which participants valued having money was then assessed through their agreement with a series of statements, rated 1 (strongly disagree) to 9 (strongly agree). Half of these questions were money-related (e.g., “Having money allows for freedom and comfort”), and half were unrelated to money (e.g., “I enjoy having good relationships with others”). Participants’ responses to the money-related items were standardized and summed to form a score representing the value of having money, and participants’ responses to other items were standardized and summed to serve as a control.

**Sensitivity to Pay.** To assess whether the effect of these experimental manipulations on participants’ desire for money affected their subsequent pursuit of money, we then assessed participants’ preferences for summer internship based on their pay. They read four job descriptions that were sufficiently vague as to be relevant to a variety of majors, and we independently manipulated each job’s relative pay and intrinsic interest. After reading each job description, participants reported their motivation to pursue or avoid that job on a scale ranging from 1 (very likely) to 6 (very unlikely). Their intentions towards these jobs were standardized and a difference score was calculated between their motivation to take the higher paying jobs versus the lower paying jobs, representing their sensitivity to pay. We also calculated their sensitivity to the intrinsic interest of the job to serve as a control.

Suspicions regarding the nature of the experiment were then assessed before participants were thanked and fully debriefed. No participants reported any suspicions regarding the nature or
true purpose of this study nor did any participants accurately indicate how the scenario might have affected their subsequent responding.

Results & Discussion

Effects on Desire for Money. An initial 2 (Distinctiveness Prime: present vs. absent) x 2 (Target’s Current Goal: money-related vs. money-unrelated) analysis of variance (ANOVA) was conducted on participants’ desire for money. As illustrated in Figure 4, results indicated a significant crossover interaction in the predicted directions, $F(1, 83) = 7.60, MSE = .93, p < .01$. Among participants who received the money goal prime, there was significantly less desire for money when that goal was inferred in a typical college student rather than a close college friend (.31 vs. .29, $p < .04$). Indeed, simple effects analysis indicated a negative effect of the money goal prime when the target other was a “typical college student” (.31 vs. .26, $p < .05$), suggesting goal shielding, but a marginally positive effect of the money goal prime when the target other was a “close college friend” (.29 vs. -.28, $p < .07$), suggesting goal contagion. In short, participants devalued money when it was inferred in someone from whom participants would want to distinguish themselves (a “typical college student”). This supports our predication that distinctiveness motivation facilitates screening for cues indicating who is pursuing a goal in order to determine whether to share in the same pursuit or not.

Effects on Sensitivity to Pay. Although there were no direct effects of the experimental manipulations on sensitivity to pay without considering individual differences, a path analysis showed an indirect effect of the experimental manipulations on sensitivity to pay through their interactive effect on participants’ desire for money. We entered into the model the interaction term (which had a significant effect on participants’ desire for money), participants’ responses to the money-related and money-unrelated items, as well as participants’ pursuit of high-paying
jobs and their pursuit of interesting jobs (see Table 1 for zero-order correlations). As illustrated in Figure 5, the model provided excellent fit to the data, $\chi^2 = 52.92, p < .001, \text{CFI} / \text{TLI} = 1.00 / 1.00, \text{RMSEA} < .001$, and, importantly, there was a significant indirect effect of the interaction term on participants’ sensitivity to pay through participants’ desire for money, $B = .14, z = 2.48, p < .02$. In other words, the interaction of the distinctiveness prime and goal prime predicted participants’ desire for money (but not their desire for things unrelated to money), which in turn predicted participants’ motivation for higher paying jobs (but not more interesting jobs).

General Discussion

The results of the present studies suggest that goal contagion occurs selectively, not indiscriminately, and that individuals will readily shield themselves from implicit motivational influences in order to protect their fundamental motives. Effective self-regulation in an often-complex social environment, then, might involve identifying what goal cues to screen for in the environment for inhibition—a process guided by the perceiver’s own chronic motives. This means that goal shielding occurs not just against direct and obvious interferences (e.g., substitutable goals and temptations), but also against goals that are made interfering by the contexts in which they are primed. These findings complement recent work suggesting that perceivers’ preexisting motivations can bias how they perceive and interpret the goals of others (Leander & Shah, 2010), affecting their identification of what goals to catch from others and what goals to shield themselves from.

There are some potentially broad self-regulatory implications for this type of goal shielding. Beyond ensuring the successful pursuit of one’s fundamental motives, such shielding might also keep a person from adopting unfit goals or taking on too many goals at once. Others’ goals are not always the right goals and, therefore, the influence of others may sometimes only
pull a person towards pursuits that do not serve their long-term interests (Leander, et al., 2009). Furthermore, the motivation behind other people’s goal pursuits is often their own and their goals may not match one’s own specific interests, preferences, or motivational orientations. By shielding against motivational influences that interfere with one’s fundamental motives, individuals might spare themselves the motivational deficits, cognitive disruption, and reduced well-being that can occur from internalizing goals that others endorse but nevertheless do not fit one’s own fundamental interests (e.g., an artist being groomed to take over the family farm, Baumann, Kaschel, & Kuhl, 2005; Deci & Ryan, 1991; Kuhl & Kazen, 1994). Goal shielding might also keep individuals from taking on too many goals at once, which could further undermine their likelihood of attaining any one of them (reminiscent of “fan effects”, Anderson, 1974; Shah, 2003). Goal shielding, then, may broadly facilitate self-regulation by helping individuals manage disparate social influences on what to pursue.

The present studies might also suggest that goal shielding serves as a means of satiating one or more fundamental motives—that the very act of shielding against others’ influences can facilitate one’s sense of positive self-regard, autonomy, or distinctiveness. Indeed, similar to how possessing an egalitarian goal facilitates screening for stereotypes to inhibit (Moskowitz, et al., 2010; Moskowitz & Li, 2010), it may be that one’s sensitivity to interfering influences is driven by one’s search for opportunities to pursue one’s fundamental motives in meaningful ways.

The way one’s fundamental motives might “screen” for goal cues to inhibit might also have implications for the quality of individuals’ social relationships and one’s pursuit of interpersonal goals. Past research has shown that individuals regulate their social relationships based at least in part on the other person’s instrumentality to their current goal pursuits (Fitzsimons & Shah, 2008); this suggests that individuals could start devaluing relationship
partners whose implicit motivational influence too often interferes with their fundamental motives. This could also lead relationship partners to perceive each other as not sharing the same goal pursuits, which can undermine relationship satisfaction (Sanderson & Cantor, 2001). Furthermore, certain pursuits (e.g., playing basketball) could eventually become impossible to successfully pursue in those others’ company (e.g., because they always win), further undermining the relationship. However, given the potential problems with adopting the goals of relationship partners whose influence interferes with one’s fundamental motives, it is possible that goal shielding also protects one’s long-term relationship functioning by preventing the sharing of pursuits that are best not shared by two people trying to get along.

Another question is whether the goal shielding we observed in the present work occurred as part of distancing oneself from the other person generally or in lieu of having to distance oneself from that person (e.g., Tesser, 1988). Either way, individuals are minimizing the motivational influence of the other person, but it would be interesting to explore whether individuals are distancing themselves from only the goal (thus satiating the fundamental motive) or from the other person in a more general sense (i.e., rejecting them entirely).

A further question to be addressed in future research is how consistent and lasting the effects of goal shielding are. For instance, if one’s need for positive self-regard has recently been satiated, one may feel less threatened later on when being outperformed by a close other and thus be more receptive to that person’s influence. A broader issue, however, is that many goals are interpersonal by nature and rely on others to be at all pursuable (Baron & Boudreau, 1987). Therefore, it is doubtful that this mechanism is deployed indiscriminately or can’t be suppressed in certain social situations. Sometimes individuals may have to accept motivational influences that represent their only opportunity to pursue worthy goals, even if aspects of those influences
interfere with one’s fundamental needs. Reactance, for example, can be suppressed when one expects continued interaction with the other person (Clee & Wicklund, 1980; Silvia, 2005). On the other hand, the implications of goal shielding could also become long lasting: individuals may perceive that someone who interferes with a fundamental motive once is likely to do so again in the future (Brehm, 1989). Such threats-by-implication could result in chronic shielding against the goals and wishes of certain others, and the implicit nature of such chronic shielding might make it difficult to reconcile those relationships later on.

In conclusion, people’s tendency to pursue multiple goals simultaneously requires them to be both open to new opportunities for goal switching yet vigilant to any influences that could interfere with their fundamental motives. This may sometimes lead individuals to avoid adopting otherwise worthy goals, suggesting that protecting one’s greater sense of self and self-regulation has its costs. Possibilities such as this also suggest that the process through which interpersonal motivational influences integrate (or collide) with individuals’ fundamental needs is rather complex, and that additional research will likely reveal a host of psychological and self-regulatory mechanisms which serve to manage such influences.
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Endnotes

1 Some readers may wonder whether participants’ responses to the ambiguous stimuli in the goal accessibility task reflect accuracy and not bias. To test this, accuracy scores for each participant were calculated by summing their correct responses from both of the discrete categories (10 academic & 10 social, Study 1; 10 tools & 10 entertainment objects, Study 2). These scores had no effect as either covariates or dependent measures.

2 Note that the experimental manipulations did not predict participants’ self-reported GPAs, $F$s < 1.6. Note also that GPA was significantly correlated with the dependent measure ($r = .27, p < .04$), which, as a measure of bias rather than accuracy (see Endnote 1), could suggest that any moderation by GPA is at least indicative of its adequacy as a motivation measure.

3 When regression analysis was used in these studies, all variables were standardized and dichotomous variables were coded (1, -1), respectively (Aiken & West, 1991). Predicted values for the three-way interaction were calculated at one standard deviation above and below the mean (Preacher, Curran, & Bauer, 2006). Note that the pattern among higher GPA participants map onto Figure 1, but the pattern among lower GPA participants was virtually flat.

4 We had participants imagine a “roommate” rather than a “friend” because friends are often associated with helping, caring and/or self-presentation goals but roommates are not (Fitzsimons & Bargh, 2003). However, roommates often have goals to get along with each other and pursue their ideal selves around one another, suggesting that volunteering was still a reasonable goal to share with a roommate. Also, most college students report having a roommate relationship (61%), so it was assumed in the present study that participants have either had a roommate relationship or could at least relate to having one.
The extent of the victims’ need was also manipulated, but it had no singular or interactive effect on the presented results. Additionally, 16 participants were presented with images inferring a different volunteering goal than the other participants: a hooded sweatshirt, canned goods, eating utensils, and a camera. Including these participants as part of the volunteering goal condition did not change the significance of the presented results.

Half the participants in Study 3 reported their subjective value of money and job motivation in terms of avoidance motivation, and half in terms of approach motivation, but the content of each item was the same regardless of its framing and framing did not affect the presented results \((F_5 < 1.0)\).

The correlations in Table 1 suggest that the effects were in the right direction, and subsequent analysis did show a direct effect of the experimental manipulations when individual differences in action vs. state orientation were included as a third predictor. Specifically, action-oriented participants were more strongly affected by these manipulations than state-oriented participants, as indicated by the significant three-way interactions both on participants’ desire for money, \(B = .24, F(1, 86) = 5.09, p < .03\), as well as their sensitivity to pay, \(B = .30, F(1, 86) = 7.86, p < .01\) (which was partially mediated by participants’ desire for money, Sobel = 1.95, \(p = .05\)). Thus, among individuals who tended to act on their intentions (those with higher trait action-orientation), the experimental manipulations did directly affect their sensitivity to pay, as indicated by their preference for higher paying jobs (see Kuhl, 1994).

There were no main effects of the manipulated variables nor did adding main effects into the path analysis change the presented results.
Table 1:  
Zero-Order Correlations (Study 3)

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<th>Desire for Money</th>
<th>Control Items</th>
<th>Sensitivity to Job Pay</th>
<th>Sensitivity to Job Interest</th>
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<td>.39***</td>
<td>-.22*</td>
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<td>.16</td>
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<tr>
<td>Sensitivity to Job Interest</td>
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<td>-.16</td>
<td>-.44***</td>
<td></td>
</tr>
</tbody>
</table>

* p < .05  
** p < .01  
*** p < .001
Figure Captions

*Figure 1.* Salience of an achievement goal as a function of participants’ social comparison condition (Friend’s Relative Performance: superior vs. inferior) and goal priming condition (Friend’s Current Goal: achievement-related vs. unrelated).

*Figure 2.* Desire to volunteer in hurricane relief efforts as a function of participants’ trait reactance and goal priming condition (Roommate’s Goal: volunteering goal vs. no goal).

*Figure 3.* Salience of a volunteering goal as a function of participants’ trait reactance and goal priming condition (Roommate’s Goal: volunteering goal vs. no goal).

*Figure 4.* Desire for money as a function of participants’ distinctiveness priming condition (Distinctiveness Prime: present vs. absent) and goal priming condition (Target’s Current Goal: money-related vs. unrelated).

*Figure 5.* Path analysis depicting indirect effect of interaction of Goal Prime and Distinctiveness Prime on participants’ sensitivity to internship pay through the direct effect of this interaction on participants’ desire for money.
Figure 1

[Bar chart showing the salience of achievement goals for friends of different performance levels, comparing those who are pursuing achievement to those who are not.]

*Friend's Achievement Goal Performance*

Salience of Achievement Goal

- **Friend is Pursuing Achievement**
- **Friend is Not Pursuing Achievement**

Inferior

Superior
Figure 2
Figure 3

![Graph showing the relationship between Trait Reactance and Salience of Volunteering Goal. The graph compares Roommate is Volunteering and Roommate is Not Volunteering. The x-axis represents Trait Reactance with values ranging from -1 SD to +1 SD. The y-axis represents Salience of Volunteering Goal (#target objects identified) with values ranging from 3.50 to 6.50. The black line represents Roommate is Volunteering, and the gray line represents Roommate is Not Volunteering. The graph indicates a negative correlation between Trait Reactance and Salience of Volunteering Goal.]
Figure 4

![Bar Chart]

- **Y-axis**: Desire for Money (z)
- **X-axis**: Distinctiveness Prime

Legend:
- Other is Pursuing Money
- Other is Not Pursuing Money
Figure 5

Interaction of Money Goal and Distinctiveness Prime

Desire for Money

Sensitivity to Job Pay

Sensitivity to Job Interest

(Control Items)

*** p < .001