


Self-Uncertainty and the Influence of Alternative Goals on Self-Regulation

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Abstract

The current research examines factors that facilitate or undermine goal pursuit. Past research indicates that attempts to reduce self-uncertainty can result in increased goal motivation. We explore a critical boundary condition of this effect—the presence of alternative goals. Though self-regulatory processes usually keep interest in alternative goals in check, uncertainty reduction may undermine these self-regulatory efforts by (a) reducing conflict monitoring and (b) increasing valuation of alternative goals. As such, reminders of alternative goals will draw effort away from focal goals for self-uncertain (but not self-certain) participants. Across four studies and eight supplemental studies, using different focal goals (e.g., academic achievement, healthy eating) and alternative goals (e.g., social/emotional goals, attractiveness, indulgence), we found that alternative goal salience does not negatively influence goal-directed behavior among participants primed with self-certainty, but that reminders of alternative goals undermine goal pursuit among participants primed with self-uncertainty.

Keywords

self-regulation, goal pursuit, self-uncertainty, self-control

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People often describe those who flit from one long-term goal to another as needing to “find themselves.” The implication is that the self-concept serves as a guide to one’s personal endeavors and that feeling uncertain about oneself leaves the individual indecisively picking up and setting down goals, without pursuing any goal in earnest. In the present research, we explore the extent to which this is an accurate characterization of self-uncertainty—Does self-uncertainty make people prone to adopting new goals, to the detriment of their other goals? And in so doing, can self-uncertainty undermine goal performance?

People’s ability to effectively pursue their goals (i.e., stored mental representations of desired outcomes and standards for their own behavior) can determine such far-reaching consequences as educational achievement, income, relationship quality, criminality, and physical health. Typically threats to goal pursuit are framed as problematic but desirable temptations that lure people away from their goals, as when a dieter encounters chocolate chip cookies. However, even if their ends are beneficial, alternative goals can also threaten goal pursuit when they divert cognitive and motivational resources away from the focal goal. For example, the goal of cleaning one’s workspace, although admirable on its own, may be detrimental if it diverts time and attention from a grant submission with an impending deadline.

Indeed, research on the consequences of possessing multiple goals has revealed that alternative goals decrease

commitment to focal goals (especially when goal satisfaction and investment are low; Burkley, Anderson, Curtis, & Burkley, 2013), reduce the efficacy of implementation intentions (Dalton & Spiller, 2012), and interfere with performance on tasks that require executive function (Masicampo & Baumeister, 2011). To cope with the threat posed by alternative goals, people engage both conscious and nonconscious self-regulatory processes to inhibit the activation of alternative goals and maintain focus on the goal at hand, including bolstering commitment to the focal goal (Trope & Fishbach, 2000) and increasing positivity associated with the focal goal and negativity associated with the distractor (Fishbach, Zhang, & Trope, 2010). Most prominently, when engaged in pursuit of a focal goal, people tend to inhibit the cognitive accessibility of competing alternative goals in a process known as goal shielding (Shah, Friedman, & Kruglanski, 2002), which reduces the likelihood of activating alternative goals, thereby protecting goals that are currently being pursued from the threat posed by competing goals.

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However, goal shielding does not always prevent people from activating unwanted alternative goals. Indeed, in some cases goal shielding may run awry, shielding short-term temptation goals from the overriding influence of long-term goals, such as when exposure to tasty, unhealthy food actually reduces the accessibility of long-term health goals for dieters (Stroebe, van Koningsbruggen, Papies, & Aarts, 2013). In the present research, we specifically address one factor that may influence how successful people are in regulating multiple goals—namely, the state of self-uncertainty.

Self-Uncertainty and Goal Pursuit

Self-uncertainty is defined as a subjective sense of doubt about oneself or one's identity—that is, the extent to which people feel uncertain or unclear about who they are as individuals (e.g., Hogg, 2007; McGregor, Zanna, Holmes, & Spencer, 2001). Uncertainty about the self can vary along a number of dimensions. For example, self-uncertainty can apply either to specific traits, as when individuals doubt that they are empathetic, or to the self-concept as a whole, as when people feel generally unclear about their sense of self. Some people may feel chronically uncertain about who they are, but self-uncertainty can also be momentarily evoked by situations that call self-beliefs into question. Although self-uncertainty is typically correlated with self-esteem and self-efficacy, the constructs are conceptually distinct, as self-uncertainty is a metacognitive judgment that modifies thoughts about the self. Thus, people can feel uncertain about their positive qualities (e.g., uncertainty regarding their intellectual strengths) or certain about their negative qualities (e.g., certain that they are inept at a task). Moreover, situational inductions of self-uncertainty can make people feel unsure of themselves independent of any effects on state self-esteem (McGregor et al., 2001; Hogg et al., 2007).

Most prominent theories of self-regulation suggest that the self-concept, rather than simply being a reflection of one's goals and outcomes, plays a functional role in maintaining one's standards and pursuing one's goals. The self can be a generative source of goals during goal setting (Markus & Nurius, 1986), can be a marker of one's current progress toward the goal (e.g., Carver & Scheier, 1982; Duval & Wicklund, 1972; Higgins, 1996), and can affect the extent to which action feels personally chosen (Deci & Ryan, 1987). Given that the self-concept is actively involved in goal pursuit, the experience of self-uncertainty would be expected to undermine goal pursuit. Indeed, experiencing self-uncertainty reduces the accessibility of goal-related possible selves (Smith et al., 2014), which in turn may have consequences for motivation and goal pursuit (Oyserman, Destin, & Novin, 2014). Moreover, chronic self-uncertainty is negatively correlated with grit (Fite, Lindeman, Rogers, Voyles, & Durik, 2017), a marker of tenacious goal pursuit. Thus, evidence suggests that experiencing self-uncertainty undermines self-regulation and goal pursuit.

However, in contrast to this work, research on defensive reactions to uncertainty has shown that threats to self-certainty can sometimes motivate people to heighten their commitment to personal projects and goals (McGregor et al., 2001). Recent work has pointed to reactive approach motivation as the mechanism of such effects (Jonas et al., 2014). McGregor and colleagues claim that the aversive experience of uncertainty is reduced by activating approach tendencies, which narrows the attentional scope to the goal at hand (McGregor, Nash, & Prentice, 2010) and decreases patterns of brain activity associated with pain, anxiety, and the detection of errors in behavior (Nash, McGregor, & Inzlicht, 2010). Experimentally, participants who were made to feel uncertain about their own lives rated their personal projects as more important and central to the self than did participants who were not made to feel uncertain about their lives (McGregor et al., 2001). Moreover, consistent with the claim that approach motivation helps to reduce uncertainty, participants who were given the opportunity to express enhanced commitment reported less uncertainty after an uncertainty induction than participants who were not given this opportunity. Thus, in these studies, uncertainty led to greater commitment to personal goals, indicating that uncertainty may motivate goal pursuit.

Does Self-Uncertainty Facilitate or Hinder Goal Pursuit? The Role of Alternative Goals

How can these apparently contradictory findings—that self-uncertainty sometimes hinders and sometimes facilitates goal pursuit—be reconciled? In the present research, we draw on a goal systems approach (Kruglanski et al., 2002) to understand the nuanced effects of self-uncertainty on goal pursuit. Goal systems theory posits that people rarely pursue a single goal in isolation; rather, people frequently pursue several goals simultaneously. Given that goals draw on finite resources, such as time and energy, each additional goal that is pursued has the potential to undermine the efficacy of goal pursuit by diminishing the quantity of resources that are dedicated to the original goal. Thus, effective management of multiple goals—including avoiding activation of potentially conflicting goals (Shah et al., 2002)—is crucial for successful goal pursuit. Critically, some evidence suggests that in addition to activating approach tendencies that may increase goal pursuit, the experience of self-uncertainty may also undermine management of alternative goals. Specifically, approach motivation appears to reduce error and conflict monitoring (Nash, Inzlicht, & McGregor, 2012), processes that are integrally involved in self-regulation (Checa, Castellanos, Abundis-Gutierrez, & Rueda, 2014; Inzlicht & Gutsell, 2007; Skoranski et al., 2013; Themanson, Pontifex, Hillman, & McAuley, 2011), as threats to goal pursuit must be detected and attended to in order for self-control processes to be effectively deployed (Myrseth & Fishbach, 2009). By

reducing conflict monitoring and down-regulating reactions to potential goal conflicts, approach motivation evoked by self-uncertainty may sow the seeds of goal failure.

Thus, to the extent that reactive approach motivation caused by self-uncertainty dampens conflict monitoring, individuals whose self-certainty has been threatened may be less attentive to things that may undermine pursuit of current goals. Moreover, self-uncertain people may be less attentive to the possible negative consequences of activating additional goals. As noted earlier, the experience of self-uncertainty activates approach motivation toward personal goals (McGregor et al., 2001) that should in turn increase the likelihood of alternative goals being activated when reminders of those goals are encountered (Aarts, Custer, & Veltkamp, 2008). Although self-control processes would ordinarily prevent an alternative goal from being activated, reduced conflict monitoring would render the individual less likely to identify the potential conflict. By (a) reducing conflict monitoring, and (b) increasing the perceived value of all of one's goals—including goals that conflict with currently active goals—self-uncertainty may leave the individual more open to being distracted by alternative goals.

The Present Research

In sum, despite the fact that that previous research has tended to focus on instances in which self-uncertainty motivates tenacious goal pursuit, there is reason to believe that self-uncertainty may reduce the extent to which self-regulatory processes are deployed when goal pursuit is threatened by alternative goals. With this in mind, we hypothesized that the consequences of self-uncertainty for goal pursuit would depend on the presence (or absence) of salient alternative goals. Specifically, we predicted that self-uncertain participants would exhibit poorer goal pursuit than self-certain participants when alternative goals were made salient (vs. not made salient). We tested this hypothesis in four studies. In Study 1, we manipulated participants' experiences of self-uncertainty and exposure to an alternative goal (connecting emotionally with others) before measuring their effort and performance on a focal academic task. In Study 2, we again explored a different pair of goals (intelligence vs. physical attractiveness) and assessed moderation by perceived importance of the alternative goal of physical attractiveness. In Study 3, after manipulating self-uncertainty we exposed participants to goal-consistent (health goal), alternative goal (indulgence goals), or neutral primes, and measured the amount of unhealthy food they ate. And in Study 4, we tested our proposed mechanism by exploring the extent to which objects and activities associated with alternative goals shifted psychological resources away from the focal goal. Finally, we report the results of a meta-analysis of the studies reported herein, as well as those described in the online supplement, to test the robustness of the observed effects.

Study 1

Method

Participants. Two hundred seven U.S. residents (96 women; six declined to report their gender) were recruited through Amazon's Mechanical Turk to participate in a study on cognitive performance. Sample size for the 2 (Self: certain vs. uncertain) \times 2 (Prime: emotional vs. neutral) design was determined by a power analysis indicating that a sample size of $n = 45$ per cell was sufficient to obtain power $>.95$ for the medium-to-large effect sizes obtained in pilot studies (full details of these earlier studies reported in online supplement). Ages ranged from 19 to 65 years ($M = 34.00, SD = 10.69$). Of these participants, 19 were excluded from analyses for failing to accurately respond to an embedded attention check ("Select Agree for this question" $n = 7$), indicating that they either took breaks from the study to do other things ($n = 11$ selecting "I took breaks from this survey, or shifted my attention to other things"), and/or indicating that they were significantly distracted while participating in the study ($n = 7$ writing responses to the question "During this study, were you distracted by anything?" indicating that they experienced any kinds of major distractions; e.g., "had to restart computer."¹) These exclusions resulted in a final sample of 188.

Procedure. After providing informed consent, participants were told that the present study concerned performance on mathematical and logical thinking tasks and that they would complete a test of their mathematical/logical thinking later in the study session. Participants then completed a self-uncertainty manipulation (Hogg, Sherman, Dierselhuus, Maitner, & Moffitt, 2007), in which they wrote about three things that made them feel either certain ($n = 94$) or uncertain ($n = 94$) about themselves, their lives, and their futures. Previous research has demonstrated that this manipulation reliability impacts self-certainty (Morrison & Johnson, 2011).

Following the self-uncertainty manipulation, participants completed five items from the Morningness–Eveningness Scale as a filler task. We included a filler task because some research on compensatory reactions to threat has found that such reactions are more likely to occur after a delay (Wichman, Brunner, & Weary, 2008).²

Next, participants completed the priming manipulation. Participants in the conflicting goal condition ($n = 93$) answered two open-ended questions about the goal of emotional connection: "How would connecting with others emotionally improve your life?" and "What kinds of things could you do to connect with others more emotionally?" Participants in the neutral prime condition ($n = 95$) responded to two neutral questions: "How would you describe the room you are currently in?" and "What kinds of objects are there in this room?"

After the priming manipulation, participants completed a task that they were told measured math and spatial reasoning. This task consisted of a 9×9 grid of digits, which

participants searched for strings of three consecutive digits adding to 14. Participants entered the digit strings in a box below the grid. Participants were allowed to freely work on this task until they felt they had found as many strings as they could. The number of correct digit strings they found and entered in the box was our measure of goal performance ($M = 5.68, SD = 4.11$).

Results and Discussion

We hypothesized that self-uncertain participants would perform worse on the focal task than self-certain participants when an alternative goal (emotional connection) was primed, but not in the neutral prime condition. To test this hypothesis, we conducted a 2 (self-certain vs. self-uncertain) \times 2 (emotional goal prime vs. neutral prime) ANOVA predicting the number of digit strings participants found in the number search task (i.e., goal performance). Neither main effect was significant, Self-Uncertainty: $F(1,184) = 1.43, p = .23, \eta_p^2 = .008$, nor Prime: $F(1,184) = 1.09, p = .30, \eta_p^2 = .006$; however, this analysis revealed a significant Self-Uncertainty \times Prime interaction, $F(1,182) = 5.35, p = .023, \eta_p^2 = .028$. As depicted in Figure 1, in the Emotional Connection prime condition, Self-Uncertain participants found significantly fewer digit strings, $M = 4.93, SE = .61, 95\%$ confidence interval [CI]: [3.74, 6.13], than Self-Certain participants, $M = 7.00, SE = .59, 95\%$ CI: [5.85, 8.16]; $F(1,184) = 6.03, p = .02, \eta_p^2 = .032$. By contrast, in the Neutral prime condition, the performance of Self-Uncertain participants ($M = 5.67, SE = .58, 95\%$ CI: [4.53, 6.82]) and Self-Certain participants ($M = 5.02, SE = .60, 95\%$ CI: [3.84, 6.20]) did not significantly differ, $F(1,184) = .61, p = .44, \eta_p^2 = .003$. Within the Self-Certain condition, participants who received the Emotional Connection goal prime performed significantly better than participants in the Neutral prime condition, $F(1,184) = 5.59, p = .019, \eta_p^2 = .03$. In the Self-Uncertain condition, participants' performance did not differ by prime, $F(1,184) = .78, p = .38, \eta_p^2 = .004$.

The results of Study 1 were consistent with the hypothesis that self-uncertainty undermines goal pursuit when alternative goals are made salient. However, it is possible that the specific content of the alternative goal prime (connecting emotionally with others) was especially appealing to self-uncertain participants and does not reflect a general tendency to activate alternative goals (to the detriment of performance on focal goals). Social connection goals may be especially appealing to people who are experiencing self-uncertainty, as close others can be sources of self-verification and could thus be used as a way to bolster self-certainty (Gabriel, Renaud, & Tippin, 2007). Thus, it is possible that our self-uncertainty manipulation left participants particularly vulnerable to temptations related to socializing with close friends and family members. We addressed this concern in Study 2.

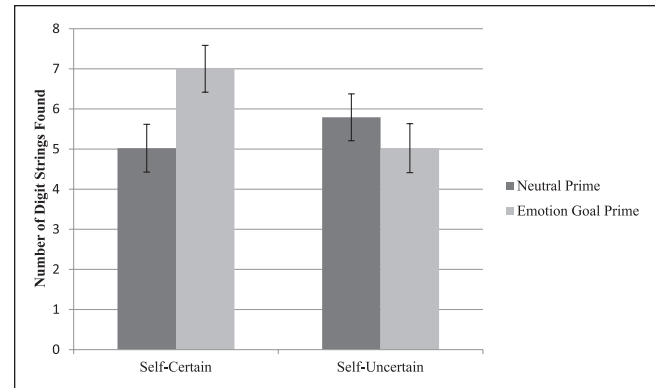


Figure 1. Study 1: Number of digit strings found as a function of self-uncertainty condition and prime type.

Note. Error bars represent standard errors.

Study 2

In Study 2, we sought to replicate the results of Study 1 with a different alternative goal. We used the goal of being physically attractive as our alternative goal. Studies on both self and interpersonal perception suggest that for women, intelligence and attractiveness can be seen as in opposition to one another (Chia, Allred, Grossnickle, & Lee, 1998; Pronin, Steele, & Ross, 2004). Thus, women may perceive a conflict between physical attractiveness goals and intelligence, and their pursuit of intellectual tasks may be affected accordingly.

Importantly, participants may vary in the extent to which they value physical attractiveness as a goal. We have hypothesized that self-uncertainty undermines pursuit of the focal goal when alternative goals are accessible, in part, because the experience of self-uncertainty reduces conflict monitoring, leading people to activate alternative goals that they would otherwise “shield out.” However, participants should only be at risk of activating the alternative goal if the primed goal is personally desirable to them (i.e., is actually an alternative goal). Thus, we expected that the extent to which participants endorsed the attractiveness goal would moderate the interactive effects of self-uncertainty and alternative goal primes on goal performance. Specifically, we anticipated that the pattern of effects found in Study 1 would only occur for participants who highly endorsed the attractiveness goal.

Method

Participants. Participants were 260 women recruited on Amazon’s Mechanical Turk. We recruited only women because men were not expected to perceive the attractiveness prime as conflicting with intelligence. Sample size for the 2 (Self: certain vs. uncertain) \times 2 (Prime: attractiveness vs. neutral) design was determined based on a pilot study (see Supplemental Study 3) that obtained an effect size of $\eta_p^2 = .072$ for the Self-Uncertainty \times Prime interaction. A power analysis

indicated that with such an effect size, a sample size of $N = 255$ would obtain a power of .95. Participants' ages ranged from 18 to 76 years ($M = 37.1, SD = 12.12$). Eleven participants were excluded from analyses for indicating that they either took breaks from the study to do other things ($n = 5$) and/or indicating that they were significantly distracted while participating in the study ($n = 10^3$), resulting in a final sample of 243.

Procedure. Study 2 followed the same general procedure as Study 1 with a few exceptions. First, in place of the social/emotional alternative goal prime in Study 1, participants were randomly assigned to complete either the physical attractiveness priming manipulation or a neutral prime. Participants in the Attractiveness prime (i.e., alternative goal) condition gave open-ended responses to two questions: "How important is it to you to be physically attractive? Explain why?" and "Describe some of the things you do to try to improve your appearance." The Neutral condition was the same as in Study 1.

The focal task for Study 2 consisted of a set of six logic problems taken from a study guide for the formal logic portion of the LSAT exam (Curvebreakers, 2006). Participants were told that they would complete this task immediately after the self-certainty manipulation and were told that it measured logical thought and ability—presumably abilities that were desirable to most participants. Participants worked on each question for as long as they liked and could skip a question and move on to the next at any time. Performance was operationalized simply as the number of correct responses. In general, participants found these questions quite difficult ($M = 1.17, SD = 1.16$), although one participant attained a perfect score.

After the logic task, participants completed several questionnaires, including one item assessing endorsement of the alternative goal of physical attractiveness. Participants rated their responses to the item ("To what extent is being physically attractive a goal that you want to pursue?") on 5-point, fully-labeled scale from *Definitely not a goal I want to pursue* to *Definitely a goal I want to pursue* ($M = 3.51, SD = 1.18$). Although participants responded to this question after the self-uncertainty and alternative goal manipulation, there was neither a main effect nor an interactive effect of either manipulation on the goal importance item (all $ps > .25$).

Results

To assess the degree to which endorsement of the alternative goal (physical attractiveness) moderated the effects of uncertainty and prime type on task performance, we first mean-centered Attractiveness Goal Endorsement and dummy coded Uncertainty condition (0 = Self-Certainty condition, 1 = Self-Uncertainty condition) and prime type (0 = Neutral prime, 1 = Attractiveness prime). We then submitted the results to an Uncertainty condition (Self-Certainty vs.

Self-Uncertainty) \times Prime type (Attractiveness vs. Neutral) \times Attractiveness Goal Endorsement multiple regression analysis, with performance on the logic task as the dependent measure. This analysis yielded a marginal main effect of Attractiveness Goal Endorsement ($B = -.27, SE = .15, 95\% CI: [-.56, .024], t(235) = -1.81, p = .072, \eta_p^2 = .014$) such that high endorsers of the alternative goal tended to perform more poorly on the LSAT question. There were no significant main effects for either the Self-Certainty condition or the Attractiveness prime. In addition, there was a significant Self-Uncertainty \times Attractiveness Goal Endorsement interaction ($B = .61, SE = .20, 95\% CI: [.20, 1.00], t(235) = 2.97, p = .003, \eta_p^2 = .036$), as well as a significant Attractiveness Prime \times Attractiveness Goal Endorsement interaction ($B = .58, SE = .22, 95\% CI: [.15, 1.01], t(235) = 2.66, p = .008, \eta_p^2 = .029$). Crucially, these effects were qualified by a three-way interaction (Uncertainty \times Attractiveness Prime \times Attractiveness Goal Endorsement), $B = -1.23, SE = .30, 95\% CI: [-1.82, -.65], t(235) = -4.15, p < .0001, \eta_p^2 = .068$.

To probe the three-way interaction, we re-centered the Attractiveness Goal Endorsement measure 1 SD above and below the mean and ran the same regression analysis. These analyses revealed that the interaction between uncertainty condition and prime type was significant for participants who were 1 SD above the mean for Attractiveness Goal Endorsement ($B = -1.22, SE = .42, 95\% CI: [-2.04, -.40], t(235) = -2.92, p = .004, \eta_p^2 = .035$; see Figure 2, top panel). Among participants who strongly endorsed the attractiveness goal, Self-Uncertainty (vs. Self-Certainty) led to poorer performance in the Attractiveness prime condition ($B = -.57, SE = .29, 95\% CI: [-1.14, -.002], t(235) = -1.98, p = .049, \eta_p^2 = .016$). In the Neutral prime condition, by contrast, the Self-Uncertain condition led to increased performance on the LSAT task relative to participants in the Self-Certain condition ($B = .65, SE = .30, 95\% CI: [.05, 1.24], t(235) = 2.15, p = .033, \eta_p^2 = .019$). Conversely, among participants in the Self-Uncertain condition, being exposed to the Attractiveness goal prime led to marginally poorer performance on the LSAT task relative to the Neutral condition ($B = -.59, SE = .31, 95\% CI: [-1.20, .01], t(235) = -1.93, p = .054, \eta_p^2 = .016$). By contrast, among participants in the Self-Certain condition, the Attractiveness prime led to better performance on the LSAT task relative to control ($B = .63, SE = .28, 95\% CI: [.07, 1.18], t(235) = 2.21, p = .028, \eta_p^2 = .020$). Thus, consistent with predictions, self-uncertain participants' goal performance was undermined by reminders of personally appealing alternative goals, whereas self-certain participants were actually bolstered by the reminder of personally appealing alternative goals.

We had no strong predictions regarding the effects of the self-uncertainty and priming manipulations on the task performance of participants for whom the prime alternative goal (physical attractiveness) was not personally desirable. Interestingly, an exploration of these participants' task performance indicated that among participants whose Attractiveness

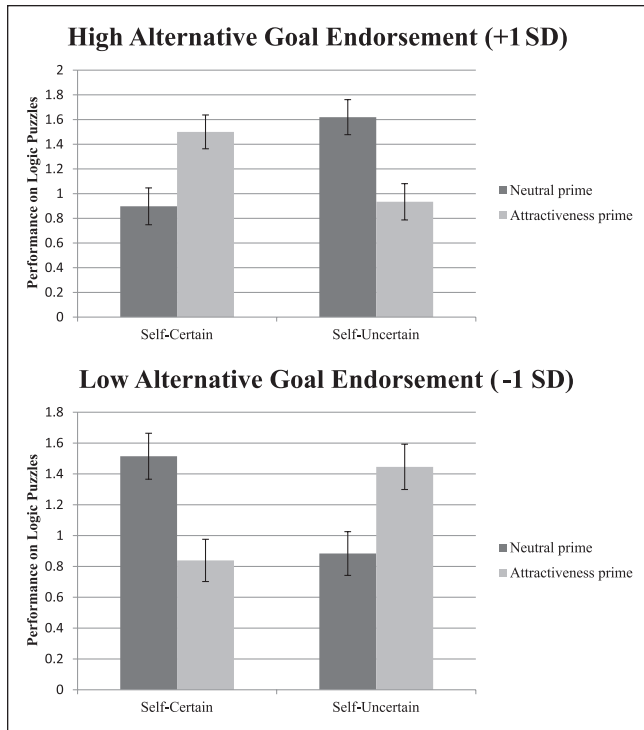


Figure 2. Study 2: Performance on logic puzzles by self-uncertainty condition, prime type, and endorsement of alternative goal (physical attractiveness).

Note. Error bars represent standard errors.

Goal Endorsement was low, Self-Uncertain participants performed better on the LSAT task when they had been primed with Attractiveness goals ($B = .57, SE = .29, 95\% CI: [-.002, 1.14], t(245) = 1.96, p = .05, \eta_p^2 = .015$; see Figure 2, lower panel), whereas Self-Certain participants performed significantly worse when primed with the Attractiveness goal ($B = -.68, SE = .29, 95\% CI: [-1.25, -.11], t(245) = -2.38, p = .02, \eta_p^2 = .022$). Thus, among participants for whom the primed goal was not a personal goal, the pattern of the two-way interaction was the inverse of that predicted and observed among participants for whom the goal prime represented an alternative personal goal.

In summary, Study 2 replicated and extended the results of Study 1. When participants for whom physical attractiveness was a personally endorsed goal were reminded of this alternative goal, self-uncertain participants were undermined in their pursuit of the focal goal (compared with a Neutral prime condition) whereas self-certain participants were not. Moreover, self-uncertainty led to enhanced performance (relative to self-certainty) when alternative goals were not salient. Study 2 also suggests that the effects of self-uncertainty are not limited to distraction by social goals—The same pattern of effects was found with a prime that was not directly related to social connectedness, namely the goal of being physically attractive. Finally, we found that this pattern of results was conditional upon the degree to which participants personally

endorsed the alternative goal—Consistent with our logic, priming an alternative goal only affected goal performance for participants who endorsed the alternative goal.

Discussion of Studies 1 and 2

Studies 1 and 2 tested the hypothesis that self-uncertainty would undermine goal striving when alternative goals were salient, but not in the absence of alternative goals. In these studies, we found a consistent self-uncertainty by prime type interaction such that self-uncertain individuals performed more poorly on goal-related tasks when alternative goals were primed (relative to neutral primes), whereas self-certain participants either maintained or increased their performance after tempting alternatives were made salient. In addition, Study 2 demonstrated that the effect was moderated by personal endorsement of the alternative goal—Self-uncertain participants were more hindered by alternative goals that were personally desirable.

These results are consistent with our hypothesis that self-uncertainty undermines effective conflict monitoring, thereby increasing the likelihood that they will activate alternative goals when they are made salient, even when those goals conflict with the task at hand. As we have described, we propose that this may occur as a consequence of uncertainty-evoked reactive approach motivation—To reduce the experience of aversive uncertainty, the behavioral approach system may be activated, leading to reduced perceptions of goal conflict and a “single-minded” focus on personal goals, even when such single-mindedness comes at the expense of the task at hand.

Study 3

In Study 3, we sought to conceptually replicate the findings of Studies 1 and 2, while testing an additional hypothesis—namely, that self-uncertainty would lead to disinhibited pursuit of either the temptation goal or the focal goal, depending on which goal was more salient. Although failures of the conflict monitoring system should impair goal pursuit when alternative goals are accessible, no such problems should occur when there is no conflict (consistent with Neutral prime conditions in Studies 1 and 2), or when the activated goal is consistent with the focal goal. Indeed, if the focal goal itself is the most salient response, then uncertainty-evoked reactive approach motivation should lead to a single-minded focus on the pursuit of the focal goal. Such an effect might explain why self-uncertain participants tended to outperform self-certain participants following the neutral prime in the previous studies—In the absence of any temptation primes, self-uncertain participants tended to direct their approach motivation toward the focal goal. To test this more directly, in Study 3 we again manipulated self-uncertainty and exposed participants to one of three types of primes—goal-inconsistent (temptation) primes, goal-consistent primes, or neutral primes.

In addition, we explored a different domain of goal pursuit. Whereas the previous studies varied in the alternative goals presented, both studies used performance on academic tasks as their dependent variable. It is possible that the negative affect evoked by self-uncertainty motivates slow, effortful processing of information (e.g., Worth & Mackie, 1987) that benefits the kinds of cognitive tasks that served as the focal goals in previous studies. Study 3, by contrast, assessed goal striving in the domain of healthy eating, by measuring the amount of unhealthy food participants ate. Not only does this assessment represent a very different kind of behavior from the cognitive tasks used in Studies 1 and 2, but in addition, negative affect is more closely associated with “poorer performance” on such a task, as in emotional overeating (e.g., Oliver, Wardle, & Gibson, 2000). Thus, Study 3 also allows us to rule out the possibility that the effects of Studies 1 and 2 were driven by increased systematic processing due to negative affect.

Method

Participants. Participants were 89 women recruited through the University of Chicago Booth School of Business’s Center for Decision Research Lab. This sample included both undergraduate and professional school students. We specifically recruited women because college-age women have been found to have stronger health and weight-loss related goals than men (e.g., Wardle et al., 2004). Their ages ranged from 18 to 46 years, with a mean age of 20.05 years. Of these, one declined to taste the unhealthy food when asked to do so by the experimenter, and was dropped from analyses. Sample size for the 2 (Self: certain vs. uncertain) \times 3 (Prime: goal consistent vs. goal inconsistent vs. neutral) design was determined by the number of participants who could be recruited over the course of three academic quarters.

Procedure. To minimize suspicion about the priming procedure, the study was described to participants as two separate studies. In the first study, described as a study on verbal fluency, participants completed the self-uncertainty manipulation (Hogg et al., 2007), followed by the priming manipulation. The priming manipulation consisted of scrambled sentences containing words related to health goals (e.g., “to she weight like find lose some would”), indulgence in tasty food (e.g., “find cookie she would another like”), or neutral words (e.g., “fox like to a house would she buy”). Participants were asked to unscramble and type these sentences as quickly as possible, supposedly as a measure of verbal fluency.

Following this task, participants were compensated for the first half of the study and sent to a different room where a different experimenter invited them to participate in a separate study. Participants were told the study concerned the influence of advertising on product enjoyment. They were then asked to flip a coin to determine whether or not they

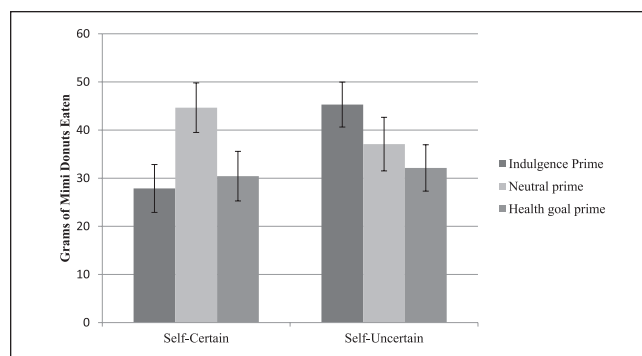


Figure 3. Study 3: Quantity of mini donuts eaten (in grams) by self-uncertainty condition and prime type.

Note. Error bars represent standard errors.

would view the advertisements before tasting the product. Regardless of the coin flip, participants were told they would taste the product without viewing any advertisements. They were then presented with the product they were asked to taste—powdered mini donuts—in a large, unmarked container. They were told that they must taste the donuts, but that they could eat as much as they wanted. The experimenter then provided participants with a questionnaire to complete about their attitudes toward the product, and left participants alone to eat and complete the questionnaire. The container of donuts was covertly weighed before and after the study session in order to measure how much of the donuts participants had consumed ($M = 36.34\text{g}, SD = 19.96\text{g}$). After finishing the questionnaire, participants were fully debriefed about the nature of the two studies and compensated for their time.

Results and Discussion

A 2 (Uncertainty condition: Self-Uncertainty vs. Self-Certainty) \times 3 (Prime type: Health goal vs. Indulgence vs. Neutral) ANOVA on the quantity of donuts consumed revealed a significant uncertainty by prime interaction, $F(2, 82) = 3.14, p = .049, \eta_p^2 = .071$ (see Figure 3). Pairwise comparisons indicated that among participants in the Self-Certainty condition, receiving either the Health goal prime ($M = 30.43\text{g}, SE = 5.15, 95\% CI: [20.18, 40.68]$) or the Indulgence prime ($M = 27.87\text{g}, SE = 4.98, 95\% CI: (17.97, 37.77)$) reduced donut consumption relative to the Neutral prime ($M = 44.64\text{g}, SE = 5.15, 95\% CI: [34.40, 54.89]$); $ps = .054$ and $.022$, respectively; $\eta_p^2 = .071$). This is consistent with previous work by Fishbach and colleagues (2003) indicating that during normal self-control processes, both temptations and goal-related cues activate goal-related concepts. Among participants in the Self-Uncertainty condition, however, participants who received the Healthy prime ate less ($M = 32.12\text{g}, SE = 4.81, 95\% CI: [22.54, 41.71]$) than participants who received the Indulgence prime ($M = 45.29\text{g}, SE = 4.68, 95\% CI: [36.00, 54.59]$, $p = .053$). However, neither the Indulgence prime nor the Health goal prime differed

significantly from the Neutral prime ($ps > .15$; $\eta_p^2 = .046$). Looking within prime type, participants who received the Indulgence prime ate significantly more when they had previously been induced to feel Self-Uncertain than when they were Self-Certain, $F(1,82) = 6.52, p = .013, \eta_p^2 = .074$. There were no significant differences between groups in either the Health goal or Neutral prime conditions, $F_s < 1, p > .3, \eta_p^2 < .013$.

As in previous studies, Study 3 revealed a significant Uncertainty \times Prime interaction. As hypothesized, self-uncertain participants tended to assimilate to the prime—participants who received the indulgence prime ate significantly more unhealthy food than did participants who received the Health goal prime. By contrast, Self-Certain (control) participants adhered to health goals after receiving both the Health goal prime and the Indulgence prime, a pattern consistent with typical findings from the self-control literature.

Study 4

Studies 1 to 3 demonstrate that the goal pursuit of self-uncertain individuals is more easily led astray than that of self-certain individuals. When reminded of alternative goals, self-uncertain participants performed more poorly on goal-related tasks compared with when reminders of alternative goals were absent, whereas self-certain participants tended to perform better when alternative goals were primed. Furthermore, in Study 3, self-uncertain participants were more likely to engage in behaviors associated with alternative goals (but detrimental to long-term goals) when such goals were primed, relative to self-certain participants who acted in accordance with long-term goals when either focal or alternative goals were primed. However, these studies do not directly address the mechanism by which self-uncertainty increases the tendency to be hindered by alternative goals. We have hypothesized that the Reactive Approach Motivation evoked by self-uncertainty—combined with lessened weight given to personal goals associated with the self-concept—will result in the self-uncertain individual single-mindedly pursuing the most salient goal to them, regardless of the potential for such behavior to hinder pursuit of other active goals.

In Study 4, we tested this hypothesis by exploring the extent to which opportunities to engage in an alternative goal distracted participants from a focal goal. Specifically, we had participants watch a lecture video with their smartphones present versus absent. Smartphones have become a ubiquitous tool for the pursuit of many goals, but we assumed that for our participants they would primarily activate the goals of connecting with others and having fun (Lepp, Barkley, & Li, 2016). To the extent that self-uncertainty evokes single-minded approach of salient goals, self-uncertain participants should show greater absorption in alternative goals, thus leading to more distraction. By contrast, self-certain participants may be better at adaptively shifting their attention

between goals, resulting in less distraction. Thus, self-uncertain participants should be more distracted by engaging with their smartphones than self-certain participants.

Method

Participants. One hundred seventeen people (77 women) were recruited to participate in a study ostensibly on learning and technology. Ages ranged from 18 to 33 years ($M = 20.32, SD = 2.40$). Sample size for the 2 (Self: certain vs. uncertain) \times 2 (Phone: present vs. absent) design was determined by the number of participants who could be recruited over a year of data collection.

Procedure. Participants were told that they would be participating in a study on the impact of different kinds of technology on learning outcomes. Participants began by completing the same self-uncertainty manipulation used in Studies 1 to 3 (Hogg et al., 2007; $N_{\text{self-uncertain}} = 57; N_{\text{self-certain}} = 60$). After completing the manipulation, participants responded to 10 items from the Self-Concept Clarity Scale (Campbell et al., 1996⁴) as a manipulation check.

Next, the experimenter directed participants in the “cell phone present” condition ($n = 66$) to take out their phones, make sure they were turned on, and set them on the table in front of them because they would complete an additional task later on their phones. By contrast, participants in the control condition ($n = 51$) were told to take out their phones, turn them off, and place them in a nearby bin to prevent any possible interruptions during the study session.⁵

After receiving directions regarding their cell phone, participants were asked to pay careful attention to a video, as there would be a quiz about its content later in the study. The video consisted of a 9-minute lecture on the Serbian and Macedonian fronts in World War I (WWI). Participants’ behavior was surreptitiously captured on video, with the hidden camera positioned to get a clear view of participants’ potential use of their cell phone (if present).

Following the video, participants completed a 10-question multiple-choice quiz on the content of the video (sample item: “Which power(s) blockaded southern Greece in 1917? a. Ottoman Empire, b. Central Powers, c. Austria-Hungary, d. Allied Powers; correct answer: c. Serbia.) Responses to this quiz served as our measure of task performance ($M = 6.69, SD = 2.16$).

After the quiz, participants responded to two questions assessing their prior familiarity with the material from the video (“How familiar were you with the Serbian and Macedonian Fronts of WWI prior to watching this video?” 1 = *Not at all familiar* to 5 = *Extremely familiar*, and “Have you taken any college-level coursework that has covered the history of World War I?” to which participants responded *Yes* or *No*.) Participants then reported how interesting they found the video (6-point, fully-labeled scale from *Extremely*

Uninteresting to Extremely Interesting) and how distracted they were during the video (1 = *Not at all distracted* to 5 = *Extremely distracted*.) This measure of distraction served as a primary measure of engagement with the alternative goal ($M = 2.55, SD = 1.06$).

After completing the full lab session, the experimenter informed the participant about the video recording taken of them as they watched the video, and participants were asked for consent to use the video for research purposes (two participants did not give consent for their videos to be used; thus, analyses involving coded behavior have a total $N = 115$.) From the videos of participants watching the lecture, we took a measure of the total amount of time participants spent interacting with their phones ($M = 25.65\text{ s}, SD = 66.12$).

Results and Discussion

An independent samples t test confirmed that participants in the self-uncertain condition reported significantly lower self-concept clarity ($M = 3.83, SD = 1.14$) than participants in the self-certain condition, $M = 4.68, SD = 1.09, t(115) = 4.13, p < .001$. Thus, the manipulation successfully impacted participants' levels of self-uncertainty.

A 2 (self-uncertain vs. self-certain) \times 2 (Cell phone: present vs. absent) ANOVA revealed a significant Self-Uncertainty \times Cell phone condition interaction predicting participants' reported distractedness during the lecture video, $F(1, 113) = 6.37, p = .013, \eta_p^2 = .053$. Pairwise comparisons indicated that Self-Uncertain participants reported being significantly more distracted when their cell phones were present, $M = 2.84, SE = .18$ than when their cell phones were removed, $M = 2.04, SE = .21, F(1, 113) = 8.60, p = .004, \eta_p^2 = .071$. By contrast, participants in the Self-Certain condition did not differ in their levels of distractedness depending on whether their cell phones were present, $M = 2.53, SE = .17$, or removed $M = 2.69, SE = .20, F(1, 113) = .37, p = .654, \eta_p^2 = .003$.

Looking within Cell phone condition, Self-Uncertain participants reported being significantly less distracted than Self-Certain participants when cell phones were removed, $F(1, 113) = 5.14, p = .025, \eta_p^2 = .044$. This effect was eliminated when cell phones were present, $F(1, 113) = 1.54, p = .22, \eta_p^2 = .013$.

We next examined the time participants spent interacting with their phones. Participants in the "Cell phones present" condition did not differ in the time they spent on their phones by Self-Uncertainty condition, $F(1, 111) = 1.47, p = .23, \eta_p^2 = .013$. However, there was a significant Self-Uncertainty \times Time engaging with phone interaction predicting distractedness, $B = .007, SE = .003, t(111) = 2.30, p = .023, \eta_p^2 = .045$. Time spent interacting with the phone was positively associated with distraction for participants in both the Self-Certain, $B = .003, SE = .002, t(111) = 2.05, p = .043$, and the Self-Uncertain condition, $B = .01, SE = .003, t(111) = 4.07, p = .0001$, but the effect was substantially greater in the

Self-Uncertain condition than in the Self-Certain condition. Thus, the same amount of time interacting with a tempting alternative to the focal goal of watching the lecture led to significantly greater distraction for Self-Uncertain than for Self-Certain participants.

Distractedness, in turn, was significantly predictive of performance on the postlecture quiz, $r(116) = -.33, p < .001$. To assess for indirect effects of the Self-Uncertainty manipulation, we used a PROCESS Model 7 (Hayes, 2013) to estimate the indirect effect of the Self-Uncertainty \times Phone condition, mediated by distractedness. This analysis revealed a significant indirect effect of Phone condition on Quiz Performance among participants in the Self-Uncertain condition ($B = -.55, SE = .23, 95\% \text{ CI: } [-1.11, -.17]$), but no significant indirect effect in the Self-Certain condition, $B = .11, SE = .21, 95\% \text{ CI: } [-.24, .59]$, and no significant direct effect, $B = .15, SE = .39, t(113) = .39, p = .70$.⁶ Thus, the distraction of using a smartphone during the lecture video was associated with poorer performance among participants in the self-uncertain condition, but not participants in the self-certain condition.

Thus, having their smartphone present led to greater levels of distraction for self-uncertain participants than for self-certain participants, which in turn led to poorer performance on the focal goal. This is consistent with the hypothesis that self-uncertainty evokes a tenacious pursuit of the nearest available goal—in this case, leading to greater absorption in engaging with the smartphone—to the potential detriment of any other goals the individual has been pursuing.

Meta-Analysis

In addition to the studies reported in this article, we conducted a number of additional studies testing the interactive effects of self-uncertainty and salience of alternative goals on personal goal pursuit and performance. To assess the robustness of the reported effects across all relevant studies, we conducted meta-analyses of the predicted Self-Uncertainty \times Alternative Goal Prime interaction, as well as meta-analyses for each of the four simple effects. These meta-analyses included all studies we conducted as long as they met the following criteria: (a) the focal goal was a personal goal that was primarily pursued individually by the participant, and (b) the study manipulated self-uncertainty before a priming manipulation that activated alternative goals. A total of eight additional studies met criteria for inclusion. Details of these studies are reported in the online supplement. Although some studies were designed to assess either persistence or performance, when both were assessed we averaged the effect sizes across the two dependent variables. Meta-analyses were conducted using the Lyons-Morris Meta-analysis calculator (which uses the Hunter and Schmidt, 1990, procedure for computing random-effects models). The primary meta-analysis revealed that the Self-Uncertainty \times Alternative Goal Prime interaction had a weighted mean Cohen's d of .16

Table 1. Results of Meta-Analyses for Interaction and Simple Effects ($k = 12$).

	Sample weighted mean Cohen's d	Sample weighted SD	95% confidence interval
Self-Uncertainty \times Alternative Goal Prime interaction	.16	.21	[0.025, 0.30]
Simple effect of Temptation Prime within Self-Certain condition	.13	.20	[0.003, 0.25]
Simple effect of Temptation Prime within Self-Uncertain condition	-.15	.19	[-0.27, -0.029]
Simple effect of Self-Uncertainty within Alternative Goal condition	-.14	.17	[-0.26, -0.039]
Simple effect of Self-Uncertainty within Control condition	.10	.20	[-0.026, 0.23]

($SD = .21$, $CI = [.025, .30]$) across studies, and significantly differed from zero. Meta-analysis for the simple effects revealed that temptation primes significantly increased goal outcomes in the self-certain condition but significantly decreased these outcomes in the self-uncertain condition (see Table 1 for details.) In addition, self-uncertainty inductions significantly undermined goal pursuit in the temptation prime condition but had no consistent effect in the control condition. Thus, the predicted effects, although generally small in magnitude, were robust across studies.

General Discussion

Whether people successfully control themselves and stick to their goals, or allow themselves to be led astray by alternative goals, plays an important role in determining ultimate goal achievement. In the present research, we examined how feeling uncertain about oneself can impact a person's likelihood of staying the course versus abandoning the focal goal in favor of alternatives. In four primary studies plus a meta-analysis including eight additional studies, we found a consistent interaction between self-uncertainty and exposure to alternative goal primes. Although participants who felt certain about themselves tended to show enhanced goal striving when alternative goals had been made salient, participants who were induced to feel uncertain about themselves performed poorer on academic tasks (Studies 1, 2, and 4), ate more unhealthy food (Study 3), and were more distracted (Study 4) when reminded of tempting alternatives compared with when alternative goals were not made salient. Thus, self-uncertainty both reduced effort on focal tasks (Studies 1 and 2) and increased indulgence and absorption in temptations (Studies 3 and 4) when tempting alternative goals were made salient. However, in the absence of alternative goals, or indeed in the presence of focal-goal primes, self-uncertain participants showed goal striving that generally surpassed that of control (self-certain) participants. This latter effect was not significant in the meta-analysis, suggesting that it may not be robust, and future research may better elucidate what conditions, if any, self-uncertainty may consistently facilitate goal pursuit.

The pattern of findings for these four studies is consistent with the hypothesis that the experience of self-uncertainty may motivate people to reactively adopt and pursue whatever goals are most salient at that moment in order to reduce aversive uncertainty. When temptations are highly salient, reactive approach motivation (McGregor et al., 2001) may lead individuals to approach temptation goals that conflict with their long-term goals, leading individuals to devote less effort to their long-term goals and engage in potentially detrimental temptation behaviors. However, in the absence of any clear guide to goal pursuit, or in the presence of cues that are consistent with one's long-term goals, this can manifest simply as effortful pursuit of personally-important goals, at least on par with individuals experiencing self-certainty.

Although we have focused primarily on the role of self-uncertainty as catalyst of uninhibited approach motivation, it remains possible that nonmotivational processes could account for these results. Specifically, self-uncertainty may increase the likelihood that goals will be adopted via goal priming processes. According to the Situated Inference Model of priming (e.g., Loersch & Payne, 2011), goal priming will be most likely to occur when (a) attention is focused on one's self or one's desires and (b) the self is ambiguous with regard to the primed goal—that is, there are no clear signals that the self either is or is not consistent with the primed goal. Self-uncertainty may lead to both of these conditions being met, as attention is drawn to the self in order to address the uncertainty, while feelings about doubt about the self-concept will tend to reduce the accessibility of self-beliefs that might conflict with adoption of the primed goal. However, we argue that the present findings are better explained by reactive approach motivation, as the tendency for participants in Study 4 to be more distracted by the same amount of engagement with their smartphones suggests an absorbing, narrow-minded focus on the opportunities for fun and social engagement afforded by the phone, which is more in line with reactive approach motivation.

It is also worth discussing whether the results of the present studies could be explained by a heightened Need for Cognitive Closure evoked by self-uncertainty. The tendency to adopt any readily available goal and approach

it single-mindedly somewhat resembles the “seizing and freezing” exhibited by people with high need for closure (Kruglanski & Webster, 1996). Although self-uncertainty may evoke similar behavior in the present studies, other research suggests that self-uncertainty cannot be reduced to need for closure. For example, whereas need for closure is associated with less creativity (Chirumbolo, Mannetti, Pierro, Areni, & Kruglanski, 2005) self-uncertainty can actually increase creativity (Rios, Markman, Schroeder, & Dyczewski, 2014). Moreover, higher trait need for cognitive closure is associated with more effective goal shielding (Shah et al., 2002), in contrast to the present research. Thus, while the present effects may resemble predictions based on Need for Cognitive Closure, self-uncertainty remains a distinct construct.

One might ask whether self-uncertain participants’ apparent absorption by alternative goals represents self-regulation failure, or merely evidence that these participants were pursuing a different focal goal than the goal framed by the researchers. This explanation is generally consistent with our interpretation—We suggest that self-uncertain participants were motivated to pursue the most salient goal available, which, in the Alternative goal prime condition, was something other than the focal goal. Whether this constitutes a failure of self-regulation is a matter of perspective—Certainly there are times when being easily distracted by alternative goals is detrimental to goal pursuit. However, one might also construe this distractibility as sensitivity to available opportunities for goal pursuit, and flexibility in that pursuit. While we attempted to design our studies such that performance on the focal task was inherently important to participants (meaning that poorer performance constitutes poorer self-regulation), it is fair to say that self-uncertain participants flexibly shifted their focus to other goals that momentarily seemed more important. Indeed, this apparent “openness” to the opportunities afforded by the environment could be interpreted as a benefit of self-uncertainty. A more nuanced picture may require operationalizing self-regulatory success as achievement across multiple goals. Future research should further explore contexts in which such tendencies hinder overall achievement across one’s varied personal goals and when distractibility/openness can be beneficial.

These findings can help to bridge apparently contradictory hypotheses from the literature regarding the consequences of self-uncertainty for self-regulation. Although McGregor and colleagues (2001) argue that experiencing uncertainty can motivate focused, effortful goal pursuit, other work has suggested that feeling uncertain and unclear about oneself will undermine self-regulation. Indeed, chronic self-uncertainty is associated with a number of negative outcomes, including poorer well-being (Cross, Gore, & Morris, 2003). Our findings indicate that both of these hypotheses may be correct, depending on the context in which goals are pursued. Self-uncertainty did reduce participants’ effort and performance on academic tasks (Studies 1 and 2) and led them to eat more

unhealthy food (Study 3) following reminders of alternative goals relative to self-certain participants. However, in the absence of alternative goals, self-uncertain participants performed as well or better than self-certain participants (Studies 1, 2, and 4), and when positive, healthy goals were cued by the environment, uncertain participants were as likely to adopt and follow these goals as the less positive temptation goals (Study 3). Overall, although there are some circumstances in which self-uncertainty may undermine self-regulation, within a social environment that prominently signals adaptive goals, self-uncertain individuals may show equivalent or enhanced goal pursuit relative to self-certain individuals.

Future Directions

The present studies focused on the consequences of momentary experiences of self-uncertainty. However, a great deal of previous work has explored associations of chronic self-uncertainty, which is typically associated with poorer well-being, higher stress, and maladaptive coping and regulatory strategies. Given that each of these outcomes can be linked to poor self-regulation, future research might explore the role of self-uncertainty’s impact on self-regulation and susceptibility to temptation as a possible mechanism for these associations. Our findings suggest that chronic self-uncertainty in combination with a social environment laden with temptations may lead to lower levels of goal achievement, which could subsequently lead to greater stress, lower self-esteem, and poorer physical health. Future research should explore these potential long-term consequences of self-uncertainty, with specific focus on the interplay between such uncertainty and the individual’s social environment.

If indeed the tendency to be distracted by alternative goals partially explains the link between self-uncertainty and poor well-being, what should the self-uncertain individual do? Must they single-mindedly focus on one goal at a time, removing all opportunities for leisure and enjoyment from their lives? We feel that the present research does not suggest that such a drastic approach is necessary. Rather, self-uncertain individuals may simply need to take greater care in the environments in which they pursue their goals. Opting to pursue the goal of studying in an environment that primarily reinforces that goal (e.g., the library) should result in better performance than pursuing the goal in an environment associated with many different goals (e.g., a coffee shop). However, more research is needed to understand how self-uncertainty affects the ability to balance multiple goals, and how people who are susceptible to distraction by alternative goals can still effectively pursue a diverse set of goals over time.

Conclusions

The present research provides evidence that self-uncertainty can influence the effort people invest in their goals, and their

performance on goal-related tasks, but that the outcome of self-uncertainty importantly depends on the context in which goals are pursued. Self-uncertainty may promote a dogged pursuit of one's goals when goals are pursued in isolation. However, reminders of alternative goals seem to disrupt goal pursuit for self-uncertain individuals, leading to lower levels of effort and achievement. We suggest that the same approach motivation used to reduce self-uncertainty and facilitate reengagement with one's goals may reduce conflict monitoring, thereby increasing the potential for alternative goals to become active and to siphon motivational resources away from the focal goal. In general, these findings suggest that considering the broader context in which goals are pursued can reveal previously unidentified challenges to goal pursuit and attainment.

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Notes

1. Some participants met multiple criteria for exclusion, and thus these totals do not sum to 19.
2. Subsequent studies did not include a delay; patterns of effects did not appear to depend on the inclusion of a filler task.
3. Some participants met multiple criteria for exclusion, and thus these totals do not sum to 11.
4. Two items from the Self-Concept Clarity Scale were not administered due to experimenter error.
5. Three participants did not bring a charged phone to the lab session. One of these had been preassigned to the "no phone" condition; the remaining two were reassigned to the "no phone" condition. Excluding these two participants from analyses does not change the results.
6. There was no significant direct effect of the Self-Uncertainty \times Phone condition interaction on quiz performance, $F(1, 112) = .63, p = .43, \eta_p^2 = .006$, although the same pattern of effects emerged: Self-uncertain participants answered fewer questions on the quiz correctly when their phone was present ($M = 6.67, SE = .44$) than when their phone was absent ($M = 6.28, SE = .38$), while self-certain participants performed better when their phones were present ($M = 7.03, SE = .37$) than when their phones were absent ($M = 6.77, SE = .43$). However, none of these differences were significant ($ps > .2$).

Supplemental Material

Supplementary material is available online with this article.

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