Restricting Choice Freedom Reduces Post-choice Goal Disengagement

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ABSTRACT Consumers pursue goals by selecting means to their attainment. They might pursue a goal to be healthy, for instance, by choosing healthy snacks or standing rather than sitting at their desk. Making an initial goal-congruent choice, however, often leaves people less motivated to continue pursuing the goal afterward, resulting in a variety of undesirable behaviors (e.g., eating a substantial piece of cake). The current research proposes a novel way to reduce this post-choice goal disengagement effect: restricting consumers’ sense of choice freedom. Three experiments support this prediction and demonstrate why it occurs: by reducing the goal progress an initial choice of means is perceived to accomplish. Restricting perceived choice freedom can thus help sustain post-choice motivation to pursue valued goals. The findings contribute to the literatures on goals and choice freedom, and offer practical insight into how to structure choice environments to help consumers adhere to long-term goals.

GOAL-CONGRUENT CHOICE Goals represent desirable outcomes that are pursued through goal-directed behavior (Custers and Aarts 2005). In consumer
contexts, people pursue goals by selecting products, services, or behaviors that offer associated benefits, that is, means to goal attainment (Atkinson 1957; Markman and Brendl 2000; Kruglanski et al. 2002; Van Osselaer and Janiszewski 2011; Etkin and Ratner 2012, 2013; Laran, Janiszewski, and Sallerno 2016). A person may pursue a goal to be healthy, for instance, by choosing organic produce or lean cuts of meat (which offer health benefits), and she may pursue a goal to save money by choosing discounted items (which offer savings benefits).

Goal-congruent choice plays a central role in self-regulation. Consumers typically have multiple valued goals at one time, and those goals compete for limited resources (e.g., attention, effort; Kruglanski et al. 2002; Etkin, Engelidis, and Aaker 2015). To allocate resources effectively, consumers monitor their progress toward a focal goal, so that once sufficient progress is made, they can redirect resources toward other goals (Kruglanski et al. 2002; Zhang, Fishbach, and Dhar 2007). Particularly for long-term goals (e.g., goals to be healthy or to save money), goal-congruent choice can make people feel they have made sufficient progress toward a focal goal, thereby freeing them to pursue other goals subsequently (Dhar and Simonson 1999; Fishbach and Dhar 2005; Novemsky and Dhar 2005; Laran and Janiszewski 2009).¹

A key implication of this self-regulatory process is that following an initial goal-congruent choice, people may temporarily disengage from the corresponding goal. By signaling that sufficient goal progress has been made, goal-congruent choice can thus reduce subsequent motivation (Brendl, Markman, and Messner 2003; Huber, Goldsmith, and Mogilner 2008; Koo and Fishbach 2008). Immediately after choosing organic produce, for instance, a consumer with a health goal may feel less motivated to be healthy, and immediately after purchasing half-price shoes, a person with a savings goal may feel less motivated to save money. Post-choice goal disengagement can license undesirable, goal-incongruent behaviors (e.g., indulging in unhealthy foods, splurging on a new purse). Thus, despite its potential self-regulatory benefits, post-choice goal disengagement can be a substantial impediment to successful long-term goal pursuit (Khan and Dhar 2006; Finkelstein and Fishbach 2010; Laran 2010; Mazar and Zhong 2010; Merritt, Effron, and Monin 2010; Gal and Liu 2011; Patrick and Hagtvedt 2012).

THE ROLE OF CHOICE FREEDOM

What might help consumers stay motivated following an initial goal-congruent choice? We propose that the perceived freedom accompanying consumers’ choice of goal-related means can influence post-choice goal disengagement.

Choice freedom refers to the perception that one’s choices are free of external constraints (Brehm 1966; Kivetz 2005; Laurin, Kay, and Fitzsimons 2012). Such constraints can be structural, like restrictive government policies or limited assortments (e.g., Broniarczyk, Hoyer, and McAlister 1998; Fitzsimons 2000; Chernev and Hamilton 2009), or psychological, like having to take others’ preferences into account (e.g., Harris, Henderson, and Williams 2005).

Consumers may perceive varying degrees of freedom when choosing means to a goal. As a consumer shops for healthy foods, for instance, she may feel that her freedom to choose the foods she wants is restricted due to stockouts or her son’s distaste for apples. As a person plans a family vacation, he may feel that his freedom to choose the destination and accommodation is restricted due to airline policies or his wife’s love of bed-and-breakfasts. Even if the same means are ultimately selected (e.g., the same healthy foods or vacation destination chosen), consumers may feel that they had more or less freedom to make those choices.

We suggest that restricting the perceived freedom to choose goal-related means can increase post-choice motivation. This prediction is based on the notion that choice freedom affects the strength of inference people draw from their choices. When people believe a choice was self-made, rather than externally imposed, they feel greater personal responsibility for the choice and more ownership over its outcomes (DeCharms 1968; Averill 1973; Langer 1975; Zuckerman et al. 1978; Botti and McGill 2011). This increased sense of personal responsibility leads consumers to endorse and experience those choice outcomes more strongly (Gilovich, Medvec, and Chen 1995; Moller, Ryan, and Deci 2006). For example, prior work finds that when choices are attributed to the self (vs. external factors), good outcomes are experienced more positively, and bad outcomes are experienced more negatively (Landman 1987).

In the present context—selecting means to a goal—a key outcome of choice is the perception that one has made progress toward achieving the goal. This suggests that, when con-

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¹. Note that for short-term goals that have specific end-states (e.g., buy 10 cups of coffee to earn a free drink), an initial goal-congruent choice (buying a cup of coffee) can increase subsequent motivation (buying another cup; Kivetz, Urminsky, and Zheng 2006; Wallace and Etkin 2018). We focus on long-term goals that lack specific end-states and suggest that for these types of goals, goal-congruent choice reduces subsequent motivation, even if just temporarily, as perceiving progress toward a focal goal frees people to pursue other goals.
Consumers feel their freedom to choose goal-related means is restricted, they should endorse this outcome (perceived goal progress) less strongly. A consumer whose choice of healthy foods was limited by a stockout, for instance, should less strongly infer that they have made progress toward a health goal (relative to the absence of such choice restriction). Restricting choice freedom should therefore reduce the goal progress one’s choice of means is perceived to accomplish. Consumers’ selection of healthy foods, for instance, should be perceived as accomplishing less progress toward a goal to be healthy when stockouts limited the available options (vs. all items being available). Because this inferred goal progress is what leads to post-choice goal disengagement, restricting perceived freedom in one’s choice of means should mitigate this tendency. Consequently, we predict that motivation immediately following choice will be higher when the choice is made with less (vs. more) perceived freedom.

Three experiments test our predictions. All followed a similar structure. Participants completed two ostensibly unrelated tasks. In the first task, participants selected means to a valued long-term goal (to be healthy or to do well in school), and we manipulated their sense of choice freedom. In the second task, we measured motivation to pursue the goal and examined how perceiving more or less choice freedom initially influences post-choice goal disengagement.

Experiment 1 considers an academic goal. All participants chose goal-related means, and for some, we restricted their sense of choice freedom, testing whether this increases motivation immediately following choice. Building on these findings, experiments 2 and 3 consider a health goal and explore the proposed underlying process. We manipulated the perceived impact of choice on the overall goal (i.e., the extent to which consumers infer goal progress from choice), exploring moderation of the post-choice goal disengagement effect. In addition, experiment 3 measured goal progress perceptions, testing whether this mediates subsequent motivation. Together the findings provide convergent support for our theory: restricting the perceived freedom to choose means to a goal reduces post-choice goal disengagement by decreasing perceived goal progress.

**EXPERIMENT 1**

Our first experiment tests whether restricting the perceived freedom to choose goal-related means reduces post-choice goal disengagement. Participants completed two verbal tasks described as reflecting their academic ability. We manipulated their perceived freedom to choose the first task and then measured motivation (i.e., persistence) on the second task. We predicted that restricting choice freedom on the first task would result in higher motivation on the second.

To serve as a basis of comparison, we also included a condition that linked the first and second tasks to different goals. Because perceiving progress toward a goal should only reduce subsequent motivation to pursue that same goal, the choice freedom manipulation should only affect motivation on the second task when it is related to the same goal (vs. a different goal) as the first.

**Design and Method**

Two hundred and twenty-six university students ($M_{age} = 21.9$ years, 64.2% female) participated in exchange for course credit. This sample excluded four students who failed to complete the study. Pretest results confirmed that the vast majority of people in this subject pool (97.8%, $N = 89$) have a chronically salient goal to do well academically and that this goal plays a role in guiding their day-to-day choices (“What role does wanting to do well academically typically play in guiding your choices?” $1 = A$ very small role, $7 = A$ very large role; $M = 5.45$ vs. scale midpoint, $t(88) = 10.14, p < .001$). Participants were randomly assigned to condition in a 2 (task frame: same goal vs. different goals) × 2 (choice freedom: high vs. low) between-subjects design.

All participants completed the same two tasks, and we varied whether the tasks were linked to the same goal or different goals. In the same goal condition, participants read that we were interested in assessing undergraduate students’ academic ability, and that both tasks measured academic ability. In the different goal condition, participants read that we were interested in assessing undergraduate students’ academic ability and personal knowledge, and that the first task measured academic ability and the second measured personal knowledge.

The first task (“Academic Ability Task 1”) consisted of a series of anagram puzzles. Participants read that there were four versions of the task they could complete (versions A, B, C, and D), and that the versions were equal in difficulty and length but differed in the exact anagrams presented. To manipulate perceived choice freedom, we varied whether participants could choose which version to complete. In the high freedom condition, participants chose a version (A, B, C, or D) of the first task for themselves. In the low freedom condition, they were told that the computer had chosen for them (version B). A manipulation check (“How much freedom did you feel you had to choose which academic task to work on?” $1 = $ Very little freedom, $7 = A$ lot of freedom)
confirmed that participants perceived less choice freedom in the low (vs. high) freedom condition (M_{low} = 2.83 vs. M_{high} = 4.89; F(1, 222) = 73.00, p < .001). Thus, all participants completed the same six anagrams in the same order, regardless of condition, but differed in their perceptions of choice freedom.

Then, we measured subsequent motivation. All participants advanced to the second task, which was described as related to the same goal (“Academic Ability Task 2”) or a different goal (“Personal Knowledge Task 1”), depending on condition. The task consisted of a single unsolvable anagram. Participants read that this anagram was very difficult, and that they could submit as many guesses as they wanted. We recorded the amount of time participants spent attempting to solve the anagram (in seconds). See the appendix (available online) for stimuli.

**Results**

An ANOVA on time spent only revealed a significant interaction (F(1, 222) = 4.32, p < .05; fig. 1). As predicted, when the second task was related to the same goal as the first, restricting choice freedom improved subsequent motivation: participants persisted for longer on the second task when they perceived less (M = 67.43 seconds, SD = 67.43) versus more freedom to choose the first task (M = 44.93 seconds, SD = 36.21; F(1, 222) = 4.36, p < .05).

Framing the second task as related to a different goal attenuated the effect. As expected, motivation on the second task was high regardless of perceived freedom to choose the first task (M_{low} = 62.14 seconds, SD = 51.93 vs. M_{high} = 70.36 seconds, SD = 68.44; F < 1).

**Discussion**

Experiment 1 demonstrates that the perceived freedom to choose goal-related means influences post-choice motivation. Supporting our prediction, when participants perceived less freedom on an initial means choice task, they were subsequently more motivated (i.e., persisted for longer) on the second task. Restricting consumers’ sense of freedom to choose means to a goal can thus reduce post-choice goal disengagement.

Importantly, providing preliminary support for the proposed underlying process, restricting choice freedom only influenced post-choice motivation when the first and second task were related to the same goal. Because perceived goal progress should only reduce subsequent motivation to pursue that same goal, when the tasks were linked to different goals, perceiving less freedom on the first no longer influenced persistence on the second. Further, that this moderation was driven by the high (rather than the low) freedom condition supports our argument that choosing goal-related means decreases subsequent motivation, and restricting choice freedom can mitigate this decrease.

The findings also cast doubt on potential alternative explanations such as depletion and choice difficulty. One might wonder whether choice freedom reduces motivation by depleting people’s resources. Alternatively, one might wonder whether choice freedom influenced task difficulty. If either account drove the results, however, then post-choice motivation should have been low regardless of whether the second task served the same goal as the first (i.e., a main effect of choice freedom). That the task frame manipulation moderated choice freedom’s effect thus casts doubt on these possibilities.

**EXPERIMENT 2**

Experiment 2 tests the underlying process through moderation. We have argued that restricting the perceived freedom to choose goal-related means reduces post-choice goal disengagement because it undermines how much progress the choice is perceived to accomplish. If our theory is correct, then reducing the perceived impact of choice on the overall goal (i.e., undermining the extent to which people infer goal progress from choice) should attenuate the effect. To test this, after manipulating perceived freedom on the means choice task, we encouraged half of the participants to see the choice as having little impact on their overall goal,
and examined whether this moderates post-choice goal disengagement. We expected that reducing the perceived impact of choice on the overall goal would lead motivation in the high freedom condition to remain high following choice.

In addition, to demonstrate generalizability, experiment 2 examines a different goal domain (health) and uses a different measure of post-choice motivation (consumption of an unhealthy snack).

**Design and Method**

Two hundred and forty-one university students (M_age = 20.8 years, 71.4% female) participated in exchange for course credit. This sample excluded 13 students who reported being unable to eat M&Ms and 4 who complained of distractions in the lab. Pretest results confirmed that the vast majority of people in this subject pool (98.9%, N = 89) have a chronically salient goal to be healthy and that this goal plays a role in guiding their day-to-day choices (“What role does wanting to be healthy typically play in guiding your choices?” 1 = A very small role, 7 = A very large role; M = 5.93 vs. scale midpoint, t(88) = 15.91, p < .001). Participants were randomly assigned to condition in a 2 (choice impact: control vs. reduced) × 2 (choice freedom: high vs. low) between-subjects design.

All participants read that we were interested in students’ healthy snack choices. Based on a pretest (N = 96), we identified 10 healthy snacks (i.e., above the midpoint on a scale from 1 = Very unhealthy to 9 = Very healthy; all p < .01): baby carrots, celery sticks, Wheat Thins, an apple, yogurt, Cheerios, raw almonds, raisins, a granola bar, and rice cakes. Participants chose five items from this set of 10 snacks. To manipulate perceived choice freedom, we varied the specific choice instructions. In the high freedom condition, participants were invited to choose five snacks in any combination that they wished. For example, they could choose two baby carrot snacks, two celery stick snacks, and one Wheat Thins snack, totaling five snacks. In the low freedom condition, participants still chose five snacks but were told that they could only choose five units of a single type. For example, they could choose five baby carrot snacks, five celery snacks, or five Wheat Thins snacks, but not a mix of the three. Supporting the manipulation, pretest participants (N = 44) randomly assigned to the low freedom condition perceived less choice freedom (1 = Very little freedom, 7 = A lot of freedom) than did those in the high freedom condition (M_low = 3.78 vs. M_high = 5.33; F(1, 42) = 7.46, p < .01).

After completing the snack choice task, we manipulated the perceived extent to which that choice affects the overall goal. In the control condition, participants moved directly to the next part of the experiment. In the reduced-impact condition, participants read: “Making healthy food choices is one way to work at being healthy, but there are many others. In the space provided, please describe other work one could do to be healthy.” Making other work one could do to be healthy salient should reduce the perceived impact of choosing healthy snacks on the overall health goal.

Supporting the manipulation, pretest participants (N = 49) randomly assigned to the enhanced-impact condition reported that their choices had less of an impact on the overall goal (“To what extent does choosing healthy snacks enable you to make progress toward being healthy?” 1 = Not at all, 7 = Very much) than did those in the control (M_reduced-impact = 4.73 vs. M_control = 5.62; F(1, 47) = 4.30, p < .05).

Then, we measured motivation. As an ostensibly unrelated task, we asked participants to watch a five-minute documentary clip and answer some questions about it. We told them that they would receive a snack to eat while watching the video. This snack consisted of a single, regular-sized package of plain M&Ms (about 58 grams), poured into an unmarked Styrofoam bowl. Participants were invited to eat as much as or as little as they wished, but told that they could not take the leftovers with them. Pretest results (N = 50) indicated that eating M&Ms is perceived as unhealthy (M = 1.44 on a scale from 1 = Not very healthy, 7 = Very healthy; t(48) = −26.82, p < .001), suggesting that greater health goal motivation should correspond to eating fewer M&Ms. After the lab administrators distributed the M&Ms, participants started the documentary clip. When the video ended, the bowls were collected and remaining M&Ms weighed. We calculated the amount consumed by subtracting the weight (in grams) of the remaining M&Ms from the average initial weight (54 grams).

Finally, to cast further doubt on depletion and choice difficulty as potential alternative explanations, participants reported how tired they felt after making their snack choices (1 = Not at all tired, 7 = Very tired) and how much difficulty they had making those choices (1 = Very little difficulty, 7 = A lot of difficulty). There were no significant effects on how tired participants felt (main effects: all p > .30, interaction: F < 1), nor on perceived task difficulty (main effects: all p > .13, interaction: F < 1).

**Results**

An ANOVA on M&M consumption only revealed the predicted interaction (F(1, 237) = 4.63, p < .05; fig. 2). Consis-
Experiment 2 provides further evidence that restricting perceived choice freedom reduces post-choice goal disengagement. When participants perceived less freedom in their initial healthy snack choices, they consumed fewer M&Ms (i.e., were more motivated to be healthy) when they perceived low ($M = 30.37$ grams, $SD = 18.01$) versus high freedom in their initial snack choices ($M = 37.32$ grams, $SD = 15.12$; $F(1, 237) = 4.96$, $p < .05$).

Reducing the perceived impact of these choices on the overall goal attenuated the effect. As expected, in the reduced-impact condition, motivation was high regardless of perceived choice freedom ($M_{low} = 33.51$ grams, $SD = 18.15$ vs. $M_{high} = 31.02$ grams, $SD = 16.67$; $F < 1$).

Further, as expected, this interaction was driven by the high freedom condition. When choice freedom on the initial task was low, subsequent motivation was high regardless of choice impact ($F(1, 237) = 1.01$, $p > .30$). When choice freedom on the initial task was high, however, reducing the perceived impact of those choices on the overall goal decreased M&M consumption ($F(1, 237) = 4.18$, $p < .05$).

**Discussion**

Experiment 2 provides further evidence that restricting perceived choice freedom reduces post-choice goal disengagement. When participants perceived less freedom in their initial healthy snack choices, they consumed fewer M&Ms (i.e., were more motivated to be healthy).

The findings also support the proposed underlying role of perceived goal progress. When we reduced the perceived impact of making healthy snack choices on the overall health goal (and thus the ability of the choice to accomplish goal progress), restricting choice freedom no longer influenced subsequent motivation.

**Experiment 3**

Experiment 3 further explores the underlying process through moderation and mediation. Rather than reduce the perceived impact of goal-congruent choice, as in experiment 2, in experiment 3 we enhance it and test whether this likewise moderates post-choice goal disengagement. After manipulating choice freedom, we encouraged half of the participants to see that choice as having more of an impact on the overall goal, and examined how this influenced subsequent motivation. We expected that enhancing the perceived impact of choice on the overall goal would reduce motivation in the low freedom condition following choice.

Further, we measured perceptions of goal progress and tested whether this mediates subsequent motivation.

In addition, experiment 3 further explores generalizability by using a different motivation measure (a second goal-congruent choice) and manipulating choice freedom while holding the choice task constant. Finding support for our predictions with this controlled manipulation rules out potential alternative explanations due to differences in task demands.

**Design and Method**

Two hundred and nine university students ($M_{age} = 20.9$ years, 63.6% female) participated in exchange for course credit. This sample excluded two students who failed to complete the study and eleven who complained of distractions in the lab. Participants were randomly assigned to condition in a 2 (choice impact: control vs. enhanced) × 2 (choice freedom: high vs. low) between-subjects design.

The procedure was similar to experiment 2, but employed a different choice freedom manipulation. All participants read that we were interested in students’ healthy snack choices and were asked to choose five items in any combination from the same set of 10 healthy snacks. In addition, participants in the low freedom condition read: “Public policy experts have concluded that commercialized snack foods should be regulated. As a consequence of the restrictions imposed, these are the options currently being sold.” Supporting the manipulation, pretest participants ($N = 38$) randomly assigned to the low freedom condition perceived less choice freedom ($1 = \text{Very little freedom, } 7 = \text{A lot of freedom}$) than did those in the high freedom condition ($M_{low} = 2.67$ vs. $M_{high} = 4.30$; $F(1, 36) = 7.57$, $p < .01$).

After completing the snack choice task, we manipulated the perceived extent to which that choice affects the overall goal. In the control condition, participants moved di-
rectly to the next part of the experiment. In the enhanced-impact condition, participants read: "Please describe how the healthy choices you made on the previous page help you with the work you need to do to be healthy." Encouraging participants to elaborate on how choosing healthy snacks helps them to be healthy should bolster the perceived impact of these choices on the overall health goal.

Then, we measured goal progress perceptions. We asked participants: "How much progress have you made toward being healthy?" and "How much have your choices accomplished toward your health goal?" (1 = Very little, 7 = A lot). These measures were highly correlated ($r = .76$) and combined to form a goal progress index.

Finally, we measured motivation. As an ostensibly unrelated study, we asked participants to choose between two tasks: a task involving physical activity and a task involving sitting for longer at their desk. They read: "You have now completed the first portion of this experiment. For the next portion, you have two options. Option 1: A task involving physical activity. You will need to get up and move around as part of the task. Option 2: A task involving sitting at your computer station. You will need to remain seated as part of the task." Pretest results ($N = 50$) confirmed that the active task was perceived as healthier than the seated task ($M_{active} = 6.28$ vs. $M_{seated} = 1.80$; $t(48) = 16.42, p < .001$). We recorded the proportion of participants who chose the physically active (i.e., healthier) task.

**Results**

**Motivation.** A binary logistic regression of activity choice on impact condition, choice freedom condition, and their interaction revealed a marginal main effect of goal progress ($\beta = .70$; Wald = 3.03, $p = .082$) and a main effect of choice freedom ($\beta = -1.38$; Wald = 9.35, $p < .01$), qualified by the predicted interaction ($\beta = 1.38$; Wald = 4.91, $p < .05$; fig. 3). Consistent with the prior results, in the control condition, participants were more likely to choose the (healthier) active task when they perceived less ($M = 46.9\%$) versus more freedom in their initial healthy snack choices ($M = 18.2\%$; $\chi^2 = 9.89, p < .01$).

Bolstering the perceived impact of these choices on the overall goal attenuated the preference for the healthy snack was low regardless of perceived choice freedom ($M_{low} = 30.5\%$ vs. $M_{high} = 30.4\%; \chi^2 < 1$).

Further, as expected, this interaction was driven by the low freedom condition. When choice freedom on the initial task was high, subsequent motivation was low regardless of choice impact ($\chi^2 = 2.08, p = .15$). When choice freedom on the initial task was low regardless of perceived choice impact ($\chi^2 = 5.2$, $p < .05$). Supporting our theory, in the control condition, restricting choice freedom reduced perceived goal progress: participants felt they had made less progress toward their health goal when they perceived less ($M = 4.48, SD = 1.44$) versus more freedom on the initial snack choice task ($M = 5.32$, $SD = 1.43$; $F(1, 205) = 9.29, p < .01$). Increasing the perceived impact of those choices on the overall goal attenuated this effect ($M_{low} = 5.00$, $SD = 1.41$ vs. $M_{high} = 4.93$, $SD = 1.31$; $F < 1$).

Further, in line with the motivation results, this interaction was driven by the low freedom condition. When initial choice freedom was high, perceived goal progress was high regardless of choice impact ($F(1, 205) = 1.88, p > .15$). When initial choice freedom was low, however, bolstering the perceived impact of choice increased goal progress perceptions ($F(1, 205) = 3.70, p < .06$).

**Moderated Mediation.** A moderated mediation analysis (Hayes 2013) examined whether goal progress perceptions drove the post-choice goal disengagement effect. This analysis used biased-corrected bootstrapping ($N = 5,000$) to generate 95% confidence intervals around the indirect effect of goal progress. Results support the predicted moderated mediation, revealing a significant overall index ($ab = .25$; 95% CI: .05 to .65). In the control condition, restricting
choice freedom increased motivation by decreasing goal progress perceptions (\(ab = -.23; 95\% \text{ CI: } -.55 \text{ to } -.05\)). In the enhanced-impact condition, however, the indirect effect was not significant (\(ab = .02; 95\% \text{ CI: } -.14 \text{ to } .20\)).

Considering the indirect effect within each choice freedom condition further supports our theory. In the low freedom condition, the enhanced-impact manipulation reduced motivation by increasing perceived goal progress (\(ab = -.12; 95\% \text{ CI: } -.37 \text{ to } -.01\)). In the high freedom condition, however, this pathway was not significant (\(ab = .08; 95\% \text{ CI: } -.02 \text{ to } .32\)).

**Discussion**

Experiment 3 underscores the role of perceived goal progress. When we enhanced the perceived impact of participants’ initial means choices on the overall goal, restricting choice freedom no longer reduced post-choice goal disengagement. In particular, consistent with our theory, post-choice motivation remained low (i.e., reduced preference for the active task). Further, measured perceptions of goal progress—which restricting choice freedom reduced in the control condition—mediated the effect on motivation.

Experiment 3 also casts further doubt on potential alternative explanations. First, holding the choice task constant rules out the possibility that differences in task demands or characteristics (e.g., variety seeking or choice task difficulty) can account for the results. Second, the results cast doubt on a potential alternative explanation based on reactance (Brehm 1966; Fitzsimons and Lehmann 2004). While one could argue that consumers may react against choice freedom restrictions by increasing goal-directed motivation, this explanation would suggest that post-choice motivation is independent of the perceived impact of those choices (i.e., a main effect of choice freedom). A reactance-based alternative account thus cannot explain why manipulating choice impact moderated the effects, nor the significant indirect effects, and therefore cannot explain the full pattern of results.

**GENERAL DISCUSSION**

Choosing means plays a critical role in goal pursuit. Selecting products and services consistent with their goals enables consumers to make progress toward achieving them. Yet, goal-congruent choice can have a negative impact on subsequent behavior, temporarily reducing post-choice motivation and licensing undesirable behaviors that impede successful long-term goal pursuit.

The current research proposes a novel solution to helping consumers avoid a post-choice dip in motivation: restricting perceived choice freedom. Three experiments demonstrate that making people feel they had less freedom to choose means to a goal increases subsequent motivation. Restricting perceived choice freedom led to higher post-choice academic motivation (experiment 1) and health motivation (experiments 2 and 3). Demonstrating this effect with different freedom manipulations and motivation measures underscores their generalizability.

The experiments also provide support for the proposed underlying process. We suggested that restricting perceived choice freedom increases post-choice motivation by reducing the goal progress the initial choice is perceived to accomplish. Supporting this notion, experiment 1 revealed that the motivation effect only emerged when the two tasks were linked to the same goal (rather than to different goals). Experiments 2 and 3 demonstrated that manipulating the perceived impact of the initial choice on the overall goal moderated the effect, and experiment 3 showed that reduced perceptions of goal progress mediated it.

**Theoretical Contributions**

This research contributes to the literature on goals and goal-based choice. Many of consumers’ most important goals, such as maintaining their weight or saving for retirement, require consistent actions over long periods of time. Because these goals are rarely ever fully attained, post-choice goal disengagement is particularly problematic. Prior work suggests potential ways to mitigate this effect (e.g., reframing the choice as a signal of goal commitment: Fishbach and Dhar 2005; framing choice as representing one’s self-concept: Salerno, Laran, and Janiszewski 2015), but much remains to be learned about how to help consumers sustain motivation to pursue long-term goals. Advancing our understanding, we show that restricting perceived freedom to choose goal-related means can help prevent a post-choice dip in motivation. By reducing the goal progress choice is perceived to accomplish, restricting perceived choice freedom can help consumers stay motivated to pursue long-term goals.

Further, prior research has primarily focused on how the act of making a goal-congruent choice affects post-choice motivation (Dhar and Simonson 1999; Fishbach and Dhar 2005), paying less attention to any potential impact of the subjective experiences accompanying that choice. By investigating how perceived choice freedom affects post-choice academic motivation (experiment 1) and health motivation (experiments 2 and 3), we showed that reduced perceptions of goal progress mediated it.

3. The effect also replicated in the domain of financial savings, not reported for the sake of brevity.
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choice goal disengagement, the current research demonstrates that motivation depends not just on whether goal-congruent choices are made (and the inference drawn from them; e.g., goal progress), but also on the experience of choosing itself. In addition, the findings contribute to the choice freedom literature. Choice freedom holds a prominent place in Western cultural values and modern marketing practices, and perceptions of choice freedom influence a variety of downstream judgments and behaviors (Clee and Wicklund 1980; Fitzsimons 2000; Ariely and Wertenbroch 2002; Fitzsimons and Lehmann 2004; Botti et al. 2008; Markus and Schwartz 2010; Moore and Fitzsimons 2014). Whereas the majority of this prior research focused on the benefits of choice freedom, emerging work suggests that in some situations, reduced or restricted freedom can instead be beneficial (e.g., Botti and Iyengar 2004; Botti and McGill 2006, 2011; Botti and Hsee 2010). Adding to this stream, our findings identify choosing means to a goal as an important context in which restricting choice freedom can improve post-choice outcomes.

Implications and Future Directions

This research has practical implications for marketers. In the marketplace, a common choice freedom restriction is due to stockouts. Consumers often react negatively to stockouts (Fitzsimons 2000; Fitzsimons and Lehmann 2004), but our findings suggest a potential upside. By reducing post-choice goal disengagement, some assortment limitations may keep consumers engaged and purchasing in goal-related categories. Our experiments also suggest other ways to implement perceived choice freedom restrictions. Reducing the actual (or perceived) variety of goal-congruent options, for example, may make consumers feel their choice freedom is limited. Displaying information that suggests government regulations are influencing what options are available, or reminding consumers to keep their family and friends’ preferences in mind, may have a similar effect. These perceived freedom restrictions may help marketers sustain consumers’ motivation following goal-congruent choice.

Future work may wish to explore the effects of additional types of choice freedom restrictions. Whereas the current research focused on external restrictions (e.g., assortment limitations, government policies), self-imposed or internal constraints may have a similar effect (Botti et al. 2008). For example, a personal desire to limit one’s own caloric intake, time spent watching television, or time spent checking email during the weekend may affect perceived choice freedom. If such internal freedom restrictions on goal-congruent choice boost subsequent motivation, this would further increase the range of possible approaches to reducing post-choice goal disengagement.

Note that we do not expect severe freedom restrictions would have the same benefit. The freedom manipulations used in our experiments still enabled people to choose means to the goal. We speculate that if restricting choice freedom precludes one’s ability to choose means completely (e.g., government policy prohibits the availability of healthy snacks or forces retirement savings), such extreme freedom restrictions may not bolster post-choice motivation. Further, the reason people choose means is to make progress toward goals. If restricting perceived choice freedom eliminates perceptions of goal progress, this too could be counterproductive. Future research could explore both possibilities.

Finally, this work has important policy implications. Over the past decade, there has been much debate about how to help people make better choices. Several recommended strategies involve choice freedom restrictions, such as establishing default options and providing people with decision aids (e.g., Johnson and Goldstein 2003). While these recommendations typically focus on restricting people’s freedom to make decisions that detract from well-being (e.g., failing to save enough money for retirement), our findings show that in some situations, restricting choice freedom to support well-being (i.e., means to valued goals) may also encourage better decisions. Interventions targeting perceived choice freedom may offer a simple and effective way to help consumers adhere to valued long-term goals.

REFERENCES


