

Staying the Course: The Option of Doing Nothing and Its Impact on Postchoice Persistence

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Abstract

Individuals regularly face adversity in the pursuit of goals that require ongoing commitment. Whether or not individuals persist in the face of adversity greatly affects the likelihood that they will achieve their goals. We argue that a seemingly minor change in the individual's original choice set—specifically, the addition of a no-choice option—will increase persistence along the chosen path. Drawing on self-perception theory, we propose that choosing from a set that includes a no-choice (do nothing) option informs individuals that they both prefer the chosen path to other paths and that they consider this path alone to be worth pursuing, an inference that cannot be made in the absence of a no-choice option. This unique information strengthens individuals' commitment to, and increases their persistence on, their chosen path. Three studies employing incentive-compatible designs supported our predictions and ruled out several rival accounts.

Keywords

decision making, inference, motivation, performance, preferences

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Individuals regularly choose among courses of action requiring ongoing commitment in the pursuit of delayed and often contingent rewards. Persistence, going on resolutely in spite of adversity, greatly affects the extent to which the individual will reap the path's rewards. Adversity, which creates an incentive to abandon a chosen path, arises in many forms, such as ego depletion (Muraven & Baumeister, 2000), satiation (McAlister, 1982), boredom (Wyatt & Langdon, 1937), and even perceived or actual discrepancies between the required input (e.g., time and effort) and expected utility. Whether complying with drug, diet, or exercise regimens, or simply completing different tasks at work or at home, the ability to persist is important for achieving both long- and short-term, as well as finite (e.g., losing 30 pounds; Locke & Latham, 1990) and ongoing (e.g., exercising regularly; Kruglanski, 1996), goals. Thus, exploring how individuals can overcome adversity and stay the course is both theoretically and substantively important.

Previous research on persistence has primarily examined factors arising during goal pursuit, after a course of

action (a path) is selected. For example, researchers have found that strength of motivation, operationalized as persistence and rates of consumption, increases as individuals approach their goals (Heath, Larrick, & Wu, 1999; Hull, 1932; Kivetz, Urminsky, & Zheng, 2006) and that persistence, in the form of self-control, tends to decrease when prior actions deplete available resources (Muraven & Baumeister, 2000). Drawing on research on choice architecture (Sunstein & Thaler, 2008), we examined here how postchoice persistence is influenced by the mere availability of an unappealing, and seemingly irrelevant, no-choice option at the time of choice (i.e., prior to the goal-pursuit process).

No-choice options may represent different actions, such as procrastinating, deferring judgment, and searching for information. Here, we limited our attention to

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no-choice options that would allow the decision maker to forgo all available alternatives in the set (i.e., do nothing). Further, although no-choice options are objectively available in almost every choice situation, opting out or deferring choice may be a more salient and viable option in some situations (e.g., choosing a diet plan or exercise regimens) than in others (e.g., choosing to undergo urgent medical treatments or undertake tasks at work, which often cannot be deferred or avoided without incurring severe costs). Therefore, one can meaningfully distinguish *rejectable* choice sets, which contain a salient and viable no-choice option, from *forced* choice sets, which do not (Parker & Schrift, 2011).

Most research on no-choice options has focused on the antecedents and rates of choice deferral (e.g., Dhar, 1997; Luce, 1998; Tversky & Shafir, 1992), as well as which options are likely to lose shares to the no-choice options (Dhar & Simonson, 2003). More recently, we demonstrated that the mere availability of a seemingly irrelevant (i.e., unappealing and not chosen) no-choice option alters individuals' decision-making process (i.e., information processing, attribute weighting, and ultimate choices; Parker & Schrift, 2011). In the current studies, we built on this literature, exploring the downstream consequences of no-choice options (rejectable choice sets) on postchoice persistence.

Three predictions can be made regarding the impact of no-choice options on postchoice persistence. First, from a purely rational perspective, if the no-choice option is unattractive and not chosen, one may argue that it should be effectively canceled out at the time of choice and have no effect on persistence. Second, one may argue that no-choice options will reduce persistence by highlighting the idea of quitting or by reducing the perceived importance of the decision. Further, to the extent that a no-choice option may be construed simply as an additional alternative in the choice set, findings suggest that a greater number of alternatives in the set leads to greater regret, thereby decreasing postchoice persistence (Carmon, Wertenbroch, & Zeelenberg, 2003; Janakiraman, Meyer, & Hoch, 2011).

The third prediction, and the one we propose in this article, is that no-choice options will increase postchoice persistence. Thus, we argue that no-choice options are not construed simply as an additional alternative in the set. Instead, we argue that choosing a path over the salient option of opting out (i.e., doing nothing) provides a signal by which individuals infer, via self-perception (Bem, 1967), their attitudes toward their chosen paths. Our hypothesis is supported by studies showing that the mere act of vetting a certain course of action by comparing it with another strengthens the inferences individuals make about their own beliefs and attitudes (Kiesler,

Nisbett, & Zanna, 1969; Zanna, 1970). As Bem (1972) noted, "individual's inferences about his beliefs may be based not only on acts he performs but also on alternative acts he rejects" (p. 17).

Consider an individual choosing one of the options from the set [A, B]. This individual can infer from this choice only a relative preference for the chosen over the unchosen option. However, choosing the same option from a set also containing a "neither" option (i.e., choosing from the set [A, B, neither]) allows the individual to additionally learn something unique about his or her preferences. Specifically, by choosing one option over another and over a "neither" option, the individual can infer not only his relative preference for the chosen over the unchosen option but also his or her absolute preference for the chosen option. That is, choosing an option from a rejectable choice set informs the individual that the option is good enough to be chosen (otherwise, he or she would have opted out). We argue that this information, which is unique to no-choice options, bolsters the individual's commitment to the chosen path and increases persistence. This prediction is consistent with findings reported in previous literature documenting the impact of choice architecture on postchoice behavior via self-perception-based inferences (Baca-Motes, Brown, Gneezy, Keenan, & Nelson, 2013; Carroll, Choi, Laibson, Madrian, & Metrick, 2009; Cioffi & Garner, 1996; Keller, Harlam, Loewenstein, & Volpp, 2011).

We present three studies that support our primary hypothesis—choosing from a rejectable choice set increases postchoice persistence—and that rule out several rival accounts. Study 1 demonstrates that the mere availability of a no-choice option increases persistence and that this effect is unique to the addition of a no-choice option (i.e., does not occur with the addition of a different, undesired alternative). Study 2 demonstrates that the effect occurs only if the no-choice option is contained within the choice set, enabling the decision maker to vet the ultimately chosen option by directly comparing it with the no-choice option and, consequently, infer that the chosen option must have been good enough. Study 3 shows that the effect is task specific and that no-choice options do not increase motivation in general. Collectively, the results consistently support a self-perception process and concurrently cast doubt on rival accounts, such as perceived freedom of choice, general action tendencies, reactance, or contrast effects.

Study 1: No-Choice Options and Persistence

Study 1 tested whether the mere inclusion of a no-choice option in the choice set increases persistence on

the chosen task and, if so, whether this effect is caused simply by the increased number of options or, alternatively, by the addition of a no-choice option in particular.

Method

One hundred six paid, online participants were informed that they had been randomly selected to participate in a task for a performance-based bonus after completing an unrelated survey.¹ Participants were then told that they would choose their topic for the task and that greater familiarity with the topic would allow for better performance on the task.

The task was a word-search puzzle (consisting of a 15 × 15 matrix of letters) from which participants were asked to identify as many words as possible related to their chosen topic. For instance, if “famous actors” was the chosen topic, the participant was tasked with finding as many last names of famous actors as possible (words in each puzzle were at least six letters long and could appear in any direction). Unlike traditional word-search

puzzles, ours did not provide participants with a list of target words, which made the task relatively challenging. Participants could quit at any time and were informed that they would be paid for each correctly identified word.

Participants were randomly assigned to three conditions. In the forced-choice condition, participants were given a choice between two topics: capital cities and famous actors (Fig. 1 depicts the famous-actors task). Participants assigned to the rejectable-choice condition were additionally given the option to choose neither topic (i.e., not participate), though none chose this option. Thus, the lone difference between the rejectable-choice and forced-choice conditions was the presence of a no-choice option in the former.

The third condition was also a forced-choice condition, but it contained three options (three-alternative forced-choice, or 3AFC, condition). Because this condition was designed to test whether the addition of any unattractive third alternative would increase persistence, the 3AFC condition contained the aforementioned topics, as well as an additional topic: famous ballet dancers—a

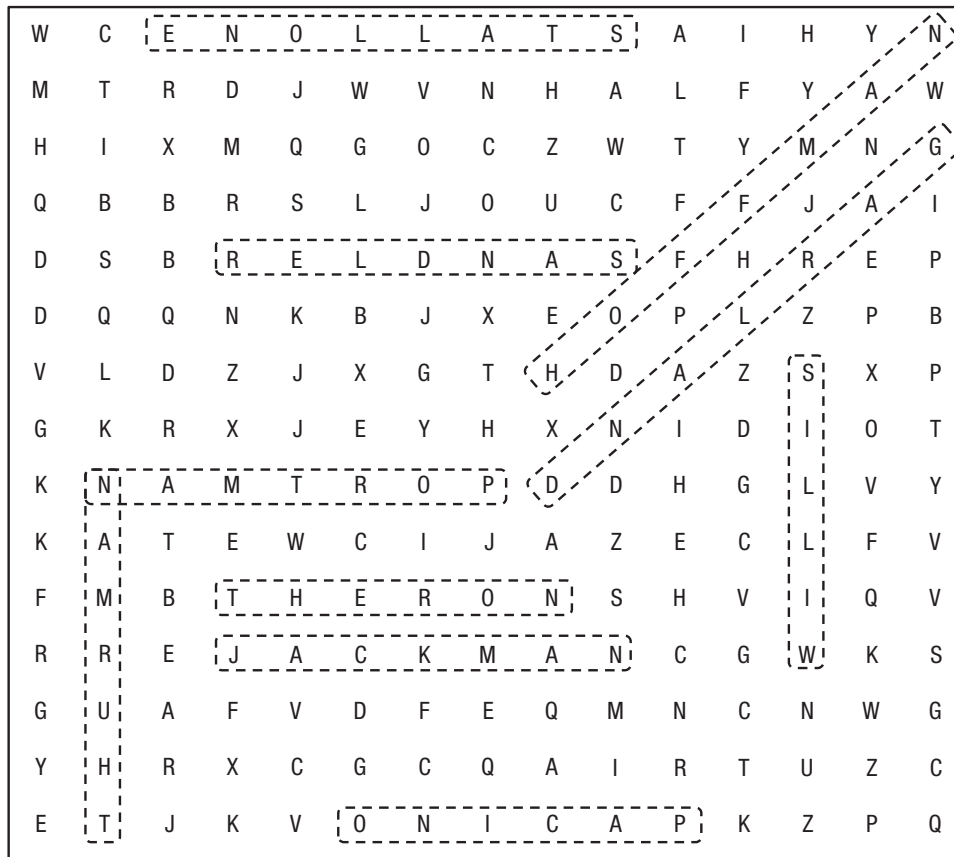


Fig. 1. Famous-actors word-search puzzle used in Study 1. The answers are highlighted here in dashed boxes.

topic that most participants would be unfamiliar with and therefore unlikely to choose (indeed, no participant chose this topic).

Results

For ease of exposition, we report raw persistence times (in seconds) but analyzed log-transformed times. A single-factor omnibus analysis of variance (ANOVA) revealed significant differences in the amount of time participants spent on the task across conditions, $F(2, 103) = 3.63, p < .03$. Participants in the rejectable-choice condition persisted longer ($M = 418$ s) than participants in both the forced-choice condition ($M = 290$ s), $F(1, 103) = 3.86, p = .05$, and the 3AFC condition ($M = 283$ s), $F(1, 103) = 6.51, p < .02$. No significant differences were observed between the forced-choice and 3AFC conditions, $F < 1$. Thus, as hypothesized, the inclusion of a no-choice option in particular—and not simply any unappealing third alternative—increased the time participants spent on the task (see Fig. 2). The results were unaffected by the task chosen, and choice shares for each task did not differ across conditions, $\chi^2 < 1$.

A similar pattern was found when we examined the number of words correctly identified by participants (rejectable choice: $M = 4.03$, forced choice: $M = 3.28$, and 3AFC: $M = 3.03$). Although the differences failed to reach statistical significance, this is not troublesome from a theoretical standpoint because there are no guarantees that persistence will always pay off (cases in which persistence had a significantly positive impact on performance are documented in the following studies).

Discussion

Study 1 shows that the mere availability of a no-choice option increases persistence on the chosen task (operationalized as how long participants worked on their

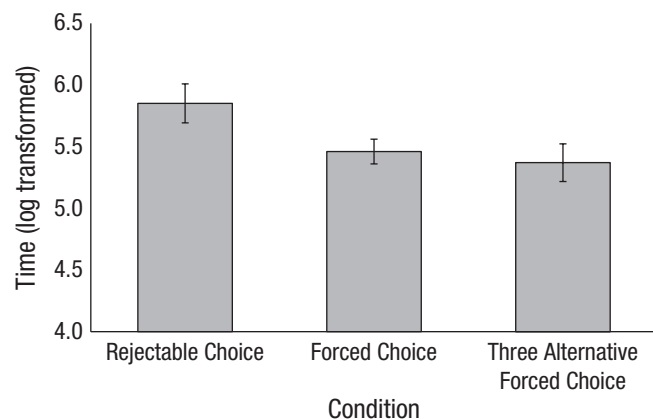


Fig. 2. Mean time that participants spent on their chosen task (log-transformed) as a function of condition (Study 1). Error bars show standard errors.

chosen task before quitting). Study 1 also highlights the unique aspects of the no-choice option by showing that the mere addition of any undesirable third alternative does not increase persistence. Thus, the increased persistence observed in the rejectable-choice condition does not seem to have been driven by perceptions of greater freedom of choice resulting from a greater number of choice options, nor does the simple addition of any irrelevant third option appear to boost the relative appeal of the other options in the choice set (ruling out contrast effects).

Finally, the incentive structure employed in this study (as well as in the following studies) made the no-choice option relatively unappealing. Accordingly, none of the participants selected the no-choice option, thereby eliminating a potential self-selection bias and concerns that those who opt in are in some way unique (e.g., have a lower cost of persistence than those who opt out).

Study 2: No-Choice Option Versus Opting In or Out

Study 2 tested whether merely affording participants the opportunity to opt in or out before observing the choice set produces the same effect on task persistence as choosing from a rejectable choice set. Per our conceptualization, in order for a no-choice option to be informative with regards to one's own preferences (via self-perception), the no-choice option must be contained in the choice set. Only by vetting the available options by directly comparing them with the no-choice option should individuals be able to infer that their chosen option must have been good enough to be chosen over doing nothing. In contrast, deciding to opt in or out prior to observing the choice set does not allow for this inference and, therefore, should not increase persistence.

Accordingly, this study included a condition in which participants were given a choice of opting in or out prior to viewing their specific options. We predicted that persistence on tasks selected from rejectable choice sets would be significantly greater than persistence on tasks selected from forced choice sets, whether or not they are preceded by a choice to opt in or out. This design also enabled us to demonstrate that the effect cannot be explained by general action tendencies (merely choosing to do something over nothing), reactance (Brehm, 1966), or negative affect that may be induced by perceptions of lower freedom in the forced-choice conditions than in the rejectable-choice condition.

Method

One hundred eighty-nine paid, online participants were informed that they could choose which of two tasks to complete after finishing an unrelated study. Participants

were offered a base payment for merely beginning a task, as well as an additional performance-based payment. This incentive structure rendered opting out (or choosing the no-choice option in the rejectable-choice condition) unappealing.

Each participant was randomly assigned to one of three conditions: forced choice, rejectable choice, and opt-in forced choice. As in Study 1, the lone difference between the forced-choice and rejectable-choice conditions was the availability of the no-choice option in the latter. Participants assigned to the opt-in forced-choice condition were first asked whether they would like to participate in the additional task prior to observing descriptions of the available tasks (all participants opted in). Participants assigned to the rejectable-choice and forced-choice conditions did not have this opt-in/out question and immediately advanced to the task-choice screen. Participants in the forced-choice and opt-in forced-choice conditions chose between two tasks (discussed in the following paragraph), whereas participants in the rejectable-choice condition were additionally provided the option to choose neither (none did).

The tasks were described as “Task A—test your perception” and “Task B—test your cognition.” These descriptions enabled us to maintain the perception of free choice while keeping the actual task identical regardless of participants’ choices (thereby eliminating potential self-selection or task-specific biases). Participants were asked to calculate the point value of a target word using a table that assigned a point value to each letter in the English alphabet. For example, if the target word was “CLEAR,” and the table indicated the following letter values, A–G = 3 points, H–L = 1 point, M–P = 5 points, Q–V = 7 points, W–Z = 4 points, then the total point value of the target word would be $3 + 1 + 3 + 3 + 7 = 17$. (For full descriptions of the tasks and target words, see the Supplemental Material available online.)

Participants saw a single target word on the screen along with its associated, unique letter-value table. After completing each target-word task, participants were allowed either to advance to the next target word or to quit the task. Participants were unaware of the total number of available target words in the study (overall 10). Thus, we expected that some participants would quit prior to completing all of the target words, which would allow us to test persistence across conditions. Our primary dependent variables were the number of target words attempted and correctly calculated.

Results

Participants assigned to the rejectable-choice condition both attempted ($M = 6.49$) and correctly solved ($M = 5.18$) more target words than participants assigned to the

forced-choice (attempted: $M = 5.39$; correctly calculated: $M = 4.20$) and opt-in forced-choice (attempted: $M = 5.40$; correctly calculated: $M = 4.39$) conditions. Because the dependent variables were right censored (26 participants attempted and 4 participants correctly identified all 10 target words), both dependent variables were subjected to a survival analysis. As expected, the cumulative survival rate was significantly higher in the rejectable-choice condition than in the forced-choice condition for both the number of words attempted, $\chi^2(1, N = 189) = 6.03, p < .015$, and the number of words correctly solved, $\chi^2(1, N = 189) = 6.10, p < .014$. Moreover, the availability of the opt-in/out question prior to viewing the choice set (in the opt-in forced-choice condition) did not increase persistence; the cumulative survival rate for both dependent variables was significantly lower in the opt-in forced-choice condition than in the rejectable-choice condition, attempted: $\chi^2(1, N = 189) = 6.85, p < .01$; correctly calculated: $\chi^2(1, N = 189) = 5.69, p < .02$. Thus, participants in the rejectable-choice condition persisted longer and performed better than participants in both the forced-choice and opt-in forced-choice conditions. Further, the compensation of rejectable-choice participants was on average 20% higher than the compensation of participants in the other two conditions. Figure 3 depicts the cumulative survival proportion in each condition. (For the results of an additional analysis, see the Supplemental Material.)

Discussion

Study 2 shows that significant differences in persistence are observed between choices made from rejectable and forced choice sets, even if the latter is preceded by a choice to opt in or opt out. This finding rules out two rival accounts for the observed effect. First, participants assigned to the opt-in forced-choice condition had the same explicit freedom to not participate in the task as did those in the rejectable-choice condition, thereby reducing concerns that the results were driven by negative affect (or reactance) among participants in the forced-choice condition who might have felt as if they were being forced to participate in the task. Second, these results demonstrate that simply choosing to do something over nothing cannot explain observed differences in persistence resulting from the availability of a no-choice option.

Study 3: Task Specificity

If the addition of a no-choice option offers additional informational value about one’s own preferences (via self-perception), such inferences should translate to increased persistence only on the chosen path (which was vetted by directly comparing it with the no-choice

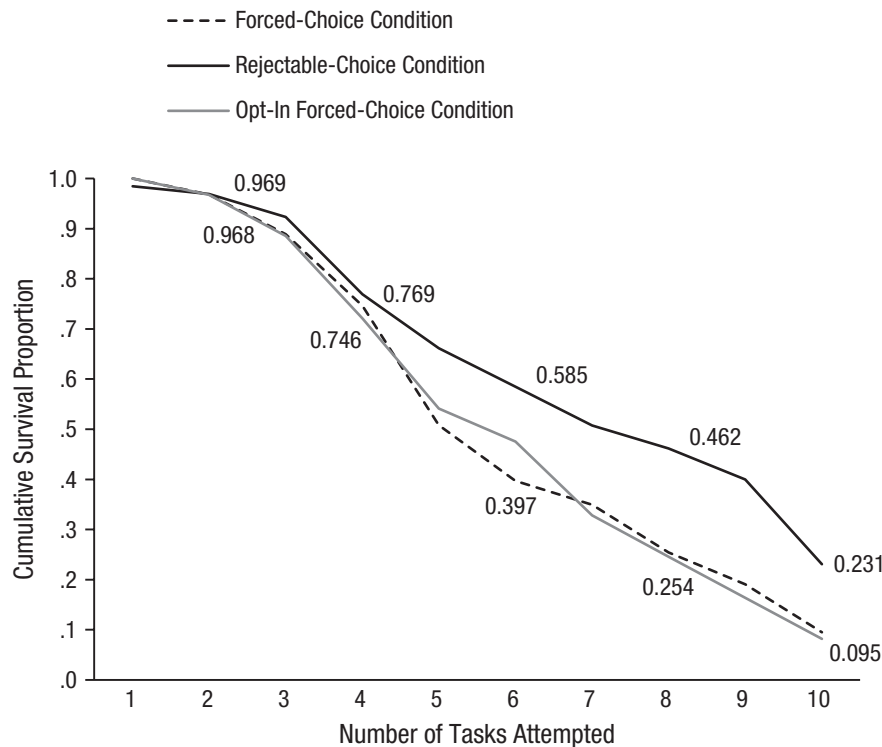


Fig. 3. Cumulative survival proportion as a function of the number of tasks attempted and condition (Study 2). Along the data lines, the upper set of numbers corresponds with the rejectable-choice condition, and the lower set corresponds with the forced-choice condition.

option). Persistence on other options that were not part of the choice set should not increase. Accordingly, Study 3 examines whether including a no-choice option increases motivation and persistence in general (i.e., on unrelated tasks) or, alternatively, increases persistence only on the chosen task. Further, this study also contrasted persistence on tasks chosen from rejectable choice sets with tasks that were directly assigned to individuals (without any choice).

Method

One hundred twenty-seven paid, online participants were each randomly assigned to one of three conditions: forced choice, rejectable choice, or a control condition. Participants assigned to the forced-choice condition were given a choice between two tasks: Task A was framed as a perception task, and task B was framed as a cognitive task. As in Study 2, the descriptions of the tasks were relatively ambiguous, which allowed us to have all participants actually perform the same task regardless of their choice (full descriptions are available in the Supplemental Material). Participants assigned to the rejectable-choice condition were additionally given a no-choice option.² Finally, participants assigned to the control condition were not given

a choice and were merely asked to complete an assigned task. All participants were informed that by merely starting the task they would be guaranteed a base payment and that there would be an additional performance-based compensation.

After choosing a task (or being assigned a task in the control condition), participants were first asked to complete an ostensibly unrelated dummy task. The dummy task was a version of “find the differences” game. Specifically, participants were shown two nearly identical pictures and asked to identify the exact number of visual differences between them. After completing the dummy task, participants began their chosen or assigned task, which was also a “find the differences” game. Thus, each participant completed two tasks, each requiring the participant to identify differences between two nearly identical pictures, one of which (the target task) they had ostensibly chosen. Figure 4 depicts one of the sets of pictures that were used in this study (the pictures used for the dummy and target tasks were counterbalanced between subjects; this had no effect on the results).

The tasks employed were an effective test of persistence because participants could not know exactly how many visual differences actually existed between the pictures. That is, even after finding several differences,



Fig. 4. Example stimulus from Study 3. The pictures on the left and right are nearly identical; participants had to find the differences between them.

participants were motivated to continue examining the pictures (i.e., persist) in order to determine whether they had identified all differences. We predicted that persistence and the consequent accuracy of responses would be significantly higher in the rejectable-choice (vs. forced-choice and control) condition but only on the target and not on the dummy task.

Results

Results of this study were entered in 3 (choice condition: forced choice vs. rejectable choice vs. control; between subjects) \times 2 (task type: dummy vs. target; within subjects) repeated measures ANOVAs. We analyzed both how long participants spent on each task (Fig. 5) and their accuracy (determined by subtracting the number of differences found by the participant from the actual number of differences—lower scores indicate greater accuracy; Table 1). Again, for ease of exposition, we report raw persistence times (in seconds) but analyzed log-transformed times.

First, we found significant main effects of task type on both the amount of time participants spent on the task (dummy task: $M = 68.80$ s; target task: $M = 57.30$ s), $F(1, 124) = 11.26$, $p < .001$, and the accuracy of their responses (dummy task: $M = 4.06$; target task: $M = 4.80$), $F(1, 124) = 13.53$, $p < .001$. More important, and consistent with our hypothesis, these main effects were both significantly qualified by the expected interactions between task type and choice condition—time on task: $F(2, 124) = 7.33$, $p < .001$, and accuracy: $F(2, 124) = 5.10$, $p < .01$ (see the Supplemental Material for additional analyses). Planned contrasts revealed that participants in the rejectable-choice condition spent more time than those in the forced-choice condition solving the target

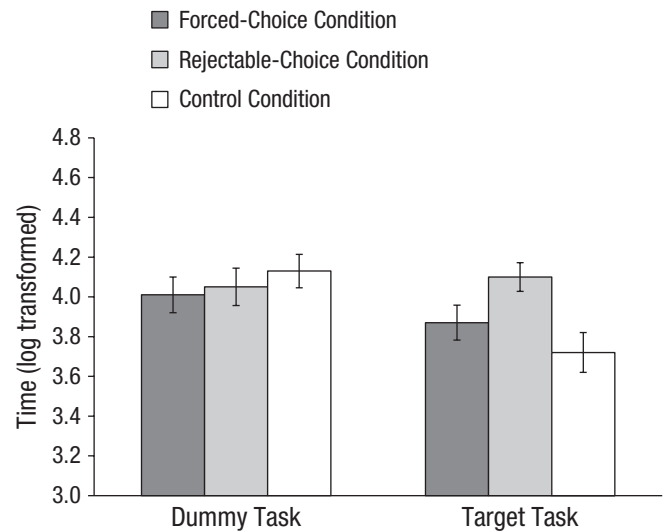


Fig. 5. Mean time that participants spent on their chosen task (log-transformed) as a function of task type and condition (Study 3). Error bars show standard errors.

task ($M = 66.54$ s vs. $M = 56.60$ s, respectively), $F(1, 124) = 2.85$, $p < .095$, and were more accurate in their responses ($M = 4.07$ vs. $M = 5.05$, respectively), $F(1, 124) = 6.33$, $p < .015$. The same pattern held when contrasting the rejectable-choice with the control condition for both time on task (control: $M = 49.30$ s), $F(1, 124) = 8.5$, $p < .01$, and accuracy (control: $M = 5.30$), $F(1, 124) = 10.19$, $p < .002$.

Of note, no significant differences emerged among the conditions for time spent on the dummy task (rejectable choice: $M = 67.60$ s; forced choice: $M = 65.16$ s; control: $M = 73.53$ s), both F s < 1 , or the accuracy of responses on the dummy task (rejectable choice: $M = 4.22$; forced choice: $M = 3.67$), $F(1, 124) = 1.71$, $p = .19$, (rejectable choice: $M = 4.22$; control: $M = 4.32$), $F < 1$. Thus, as hypothesized, participants assigned to the rejectable-choice condition persisted longer and performed better than those in the forced-choice and control conditions, but only when completing the target and not the dummy task.

Table 1. Accuracy Results (Study 3)

Condition	Dummy task		Target task	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Forced choice	3.67	1.85	5.05 _a	1.83
Rejectable choice	4.22	1.82	4.07 _b	1.71
Control	4.32	2.09	5.30 _a	1.75

Note: Means were calculated by subtracting the number of differences found between two similar images from the actual number of differences. Smaller scores indicate greater accuracy. For the target task, means that do not share a subscript are significantly different, $p < .05$.

Discussion

Study 3 demonstrated that merely including a no-choice option in the choice set increased persistence (and performance) but only on tasks present in the choice set (i.e., tasks vetted by directly comparing them with the no-choice option during the choice process). Persistence on other tasks was unaffected. Furthermore, this study demonstrated that the mere inclusion of a no-choice option in the set increased persistence and performance compared with situations in which people were simply assigned a task.

General Discussion

The results of the three studies reported here³ validate our predictions; when choosing from a rejectable choice set, participants persisted longer by spending more time on their chosen tasks (Studies 1 and 3) and attempting more subtasks (Study 2). The pattern of results supports self-perception as the underlying mechanism and casts doubt on several alternative accounts.

Although it is not always beneficial to persist along a chosen path, there are many cases in which persistence is of great importance to individuals. Sticking to a diet, completing drug regimens, regularly visiting the gym, and working through personal or professional challenges are all instances in which persisting is beneficial and important. The results suggest that persistence can be increased simply by introducing or highlighting the no-choice option.

Admittedly, adding or emphasizing a no-choice option may increase the probability of individuals choosing it even when they should not, which renders such a strategy risky at times. However, in other instances, it may still prove beneficial if the aggregate benefit of the increased persistence (of those who do not opt out) surpasses the disutility that arises from those who do. In addition, using the right incentive structures (such as those employed in our studies), one could drastically reduce or eliminate the tendency of opting out while maintaining the positive impact that affording no-choice options has on persistence. Thus, policymakers, doctors, and managers could find optimal solutions while taking into account the various pros and cons of providing or highlighting a no-choice option when motivated to increase persistence.

Finally, although previous research has demonstrated that the impact of response modes on motivation (through self-perception) can persevere as long as 6 weeks (Cioffi & Garner, 1996), it is reasonable to expect that the impact of choosing from a rejectable choice set will diminish over time. However, we argue that the current finding may still play an important role and will not be limited to goals with relatively short time horizons. First, in many situations, the highest attrition rates are observed at the beginning of the goal pursuit and before the behavior

becomes habitual. Therefore, even if the proposed “direct” effect may be short-lived, it may still have a long-term impact by helping individuals to “cross the Rubicon.” Furthermore, individuals on the verge of quitting may be more easily persuaded to stay the course if the persuasion message includes a reminder that they chose a particular path over doing nothing. However, these predictions are beyond the scope of this article and are left as directions for future research.

Author Contributions

R. Y. Schrift and J. R. Parker jointly developed the studies’ concepts and contributed equally to the design. Both authors performed the testing and data collection, and both approved the final version of the manuscript for submission.

Declaration of Conflicting Interests

The authors declared that they had no conflicts of interest with respect to their authorship or the publication of this article.

Supplemental Material

Additional supporting information may be found at <http://pss.sagepub.com/content/by/supplemental-data>

Note

1. Payment and incentives used in all three studies are reported in the Supplemental Material available online.
2. One participant chose the “neither” option, and this response was coded in the most conservative manner and counter to our predictions; that is, it was considered that this participant started the task and immediately quit.
3. We also conducted a fourth study (reported in the Supplemental Material) that provided further support that including a no-choice option in the choice set increases persistence.

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