When Do Individuals Give Up Agency?
The Role of Decision Avoidance

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Abstract

A common policy problem is that individuals reject recommended options and insist on making their own choices. Via a large-scale experiment, we document and investigate what factors contribute to this preference for agency. Our main results show that individuals’ willingness to give up their agency increases when they are less determined about what they would choose. Additional results suggest that this is because when they are less determined about what they would choose, forgoing agency allows them to avoid making decisions.

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1 Introduction

Individuals decide whether to adopt the recommendations of others in a myriad of situations: at home, deciding whether to have one’s spouse select a restaurant; at work, when a boss decides whether to implement an employee’s solution to a problem or to investigate the problem herself; or in policy, when nudge units try to change people’s behavior. While there has been some recent work on measuring preferences for agency, we study whether there are factors that increase the propensity to accept another’s choice. Understanding the role of choice architecture on the preference for agency not only helps understand the nature of this still quite recent concept, but also has important policy implications. If the goal is to encourage individuals to accept a paternalistic decision and give up agency, understanding these factors can directly inform policymakers on how to intervene, regardless of whether this paternalistic decision is made by family members, bosses, industries, or governments.

To illustrate our intuition, consider the case of a boss who is reviewing a problem for the first time and has not yet chosen which option to implement. If she insists on agency, she will need to choose which option to implement. If she gives up agency, her trusted employee will choose which option to implement. How easy would it be to convince that boss to forgo agency and let her trusted employee make the decision? Consider, in contrast, a boss who is reviewing a problem for the second time and has already chosen to implement the same option as last time. If she insists on agency, that option will be implemented. If she gives up agency, her trusted employee will decide which option to implement. Would it be harder to convince this boss to accept her trusted employee’s choice instead?

With this intuition, we propose the Determined Choice hypothesis: an individual’s willingness to give up agency increases in the extent to which her choice is less determined. Thus, an individual is more willing to give up agency when she encounters a problem for the first time, compared to when she has already had experience with a problem and is very determined about which option to implement. To test the Determined Choice hypothesis, and to understand what factors drive this hypothesis, we ran a series of large online experiments.

In these experiments, participants face a series of investment problems in each of which participants choose which investment option—from a set of available options—to implement. Each investment problem appears once in each of the two blocks: the Baseline Block and the Agency Block. In the Baseline Block, participants decide which option to implement for a small fee. In the Agency Block, participants decide whether to forgo agency (and accept the option chosen by the paternalist, Pat), or to implement an option they choose for a small fee. The fee ensures that individuals who select agency have a strict preference for doing so. Participants are not informed of the exact choice Pat made, but know that Pat is an individual who made very common choices.
We design the *Determined* and *Inexperienced* treatment to assess individuals’ willingness to give up agency depending on whether their choice is determined or not. In the *Determined* treatment, participants first face the Baseline Block and then the Agency Block. If participants insist on agency, the option that will be implemented is already determined: it is the option they previously chose in the Baseline Block. Participants in the *Determined* treatment forgo agency in a problem 31% of the time. In contrast, in the *Inexperienced* treatment, the Agency Block is the first block participants face. If participants insist on agency, they subsequently have to select which option to implement. Participants in the *Inexperienced* treatment forgo agency in a problem 55% of the time. Consistent with the *Determined Choice* hypothesis, participants are 24 percentage points (or 77%) more likely to forgo agency when their choice is less determined. We therefore find strong evidence for the *Determined Choice* hypothesis.

To understand the drivers of the *Determined Choice* hypothesis, note that there are two differences between the *Determined* and the *Inexperienced* treatment. The first difference relates to *experience*. While participants in the *Inexperienced* treatment decide on agency when they encounter a problem for the first time, participants in the *Determined* treatment have experience with the problem before deciding on agency. There are many reasons why experience may cause a difference in agency preferences. In addition to pure experience effects, a strong preference for consistency in choices or a Eureka moment when selecting an option in a problem for the first time may imply that participants know—with certainty—which option they would implement in a problem when facing it for the second time. In this way, experience may make participants very determined about their choice. The second difference relates to *decision avoidance* (or commitment). In the *Inexperienced* treatment, insisting on agency requires participants to choose which option—out of all available options—to implement. By forgoing agency, they can avoid making this decision. In the *Determined* treatment, insisting on agency does not allow participants to choose which option to implement, because they are committed to their prior choice. Hence, they have no decision to make if they insist on agency; or, put differently, no decision to avoid by forgoing agency.

To examine the role of *experience* and *decision avoidance*, we design the *Experienced* treatment. As in the *Determined* treatment, participants first face the Baseline Block and then the Agency Block. However, as in the *Inexperienced* treatment, if participants insist on agency, they subsequently have to select which option to implement. To avoid making that decision, participants in the *Experienced* treatment must forgo agency. Results reveal that about two-thirds of our *Determined Choice* effect is driven by *decision avoidance* (as seen by comparing the *Experienced* to the *Determined* treatment) while the remainder is driven by experience (as seen by comparing the *Inexperienced* to the *Experienced* treatment).

Additional experiments produce three more results. First, we replicate our main *Determined Choice* effect. Second, we show the robustness of our *Determined* choice effect to environments
where participants have information on Pat’s choices. Third, we further document the role of decision avoidance in driving participants’ willingness to give up agency in a slightly different environment.

This paper is related to several literatures and also has important policy applications. First, we add to a small but growing literature on agency preferences (Fehr, Herz and Wilkening, 2013; Bartling, Fehr and Herz, 2014; Owens, Grossman and Fackler, 2014; Afzal et al., 2018; Pikulina and Tergiman, 2019). Our contribution relates to documenting that the strength of agency preferences depends on when in the decision process individuals are asked whether they prefer to exercise agency—that is, whether they are asked early, when they encounter a problem for the first time, or instead late, when they have experience with a problem and, more importantly, are committed to a prior choice.

Second, our work can be interpreted as reflecting on an individual’s willingness to be paternalized. This nicely complements recent work on individuals’ willingness to paternalize others (Jacobsson, Johannesson and Borgquist, 2007; Gangadharan, Grossman and Jones, 2014; Lusk, Marette and Norwood, 2014; Ambuehl, Bernheim and Ockenfels, 2019).1

Third, ample and important work exists in behavioral economics on choice architecture and nudges, and most closely related to our work, how to encourage individuals to adopt a recommended or default option (for a review on this literature, see Jachimowicz et al., 2019 or DellaVigna and Linos, 2020). Our results suggest a potentially powerful lever for this work: intervene earlier in the decision-making process. Interestingly, our results also make clear that this does not necessitate reaching individuals before they gain experience with a decision environment. Even experienced agents prove more willing to forgo agency if insisting on agency requires them to remake decisions.

2 Design

We describe our main experiment in this section. For complete instructions, see our Online Appendix.

2.1 Decision Environment

Our study involves 18 investment problems. In each one, participants receive an endowment of $2.25 and decide how to invest $2 of that endowment by selecting which investment option to implement.

The 18 investment problems are described in Table 1. There are twelve EG problems—inspired by Eckel and Grossman (2002)—with five investment options each: one guarantees a fixed return, and four have returns that depend on a 50-50 lottery. There are also four High-Risk problems with three investment options: one guarantees a fixed return, and two involve small

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1An important decision domain for understanding how individuals paternalize others relates to parental decisions about their children. For excellent recent work, see Berry, Dizon-Ross and Jagnani (2020).
chances of high returns. Finally, there are two Attention Check problems with five investment options each, all with fixed returns, one of which strictly dominates the others.

Participants face each investment problem twice: once in the Baseline Block and once in the Agency Block. The order of the 18 problems in each block is random. In the Baseline Block, participants choose an investment option and incur a $0.25 implementation fee. In contrast, in the Agency Block, participants can either implement the option chosen by themselves (“insist on agency”) or instead implement the option chosen by someone else (“forgo agency”). If they insist on agency, they incur a $0.25 implementation fee, just as in the Baseline Block. If they forgo agency and opt for the investment option chosen by someone else, whom we call “Pat,” they do not have to pay any implementation fee. Therefore, participants who insist on agency have a strict preference for doing so.

To prevent individuals from being influenced by Pat’s choice, they do not learn it. They are, however, informed that Pat’s choices are determined by another MTurk worker, whom we describe as follows:

Because of anonymity, we cannot give you the true name of this MTurk worker. Therefore, for simplicity, let’s refer to this MTurk worker as “Pat.” Pat will be chosen such that for as many decisions [investment options] as possible out of the 18 decisions you are about to make, the following is the case: Pat made the choice that is the most common choice among all other MTurk workers in a prior version of this study. In this sense, Pat is usual for MTurk workers.

We chose the name Pat both because of its gender neutrality and as a nod to Pat’s paternalistic nature in our study. We select Pat to be someone who made “common” choices and is thus “usual” in order to capture individuals’ willingness to give up agency when doing so is “reasonable.” We study effects of an “unusual” Pat in Section 4.3.

Table 1 details the 18 investment problems, where Pat’s choice is in italics and bold. Pat’s choice was determined by a previous treatment in which participants only had to make decisions in the Baseline Block.²

²We have 398 Amazon MTurk workers from August 2, 2018 in this Reference Group treatment which was only used to determine Pat’s choices.
Table 1: Investment Problems

<table>
<thead>
<tr>
<th>EG</th>
<th>Option 1</th>
<th>Option 2</th>
<th>Option 3</th>
<th>Option 4</th>
<th>Option 5</th>
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<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>L(3,1.50)</td>
<td>L(4,1)</td>
<td>L(5,0.50)</td>
<td>L(6,0)</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>L(3.50,1.50)</td>
<td>L(5,1)</td>
<td>L(6.50,0.50)</td>
<td>L(8,0)</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>L(2.75,1.50)</td>
<td>L(3.50,1)</td>
<td>L(4.25,0.50)</td>
<td>L(5,0)</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>L(2.50,1.50)</td>
<td>L(3,1)</td>
<td>L(3.50,0.50)</td>
<td>L(4,0)</td>
</tr>
<tr>
<td>5</td>
<td>2</td>
<td>L(3.25,1.50)</td>
<td>L(4.50,1)</td>
<td>L(5.75,0.50)</td>
<td>L(7,0)</td>
</tr>
<tr>
<td>6</td>
<td>2</td>
<td>L(3.75,1.50)</td>
<td>L(5.50,1)</td>
<td>L(7.25,0.50)</td>
<td>L(9,0)</td>
</tr>
<tr>
<td>7</td>
<td>3</td>
<td>L(4.25,2.50)</td>
<td>L(5,2)</td>
<td>L(6,1.50)</td>
<td>L(7,1)</td>
</tr>
<tr>
<td>8</td>
<td>3</td>
<td>L(4.50,2.50)</td>
<td>L(5,2)</td>
<td>L(6.50,1.50)</td>
<td>L(9,1)</td>
</tr>
<tr>
<td>9</td>
<td>3</td>
<td>L(3.75,2.50)</td>
<td>L(4.50,2)</td>
<td>L(5.25,1.50)</td>
<td>L(6,1)</td>
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<td>3</td>
<td>L(3.50,2.50)</td>
<td>L(4,2)</td>
<td>L(4.50,1.50)</td>
<td>L(5,1)</td>
</tr>
<tr>
<td>11</td>
<td>3</td>
<td>L(4.25,2.50)</td>
<td>L(5.50,2)</td>
<td>L(6.75,1.50)</td>
<td>L(8,1)</td>
</tr>
<tr>
<td>12</td>
<td>3</td>
<td>L(4.75,2.50)</td>
<td>L(6.50,2)</td>
<td>L(8.25,1.50)</td>
<td>L(10,1)</td>
</tr>
</tbody>
</table>

High-Risk 1 (1, 100%) (10, 2.50%) (100, 0.25%) 0
High-Risk 2 (1, 100%) (5, 10%) (50, 1%) 0
High-Risk 3 (2, 100%) (10, 5%) (100, 0.50%) 0
High-Risk 4 (2, 100%) (5, 20%) (50, 2%) 0
Attention 1 3 1 1 1
Attention 2 3 1 1 1

Each EG problem involves a choice between one of five options: the first, X (= {2,3}), indicates a 100% chance of receiving $X; and each of the remaining options L(X, Y) indicates a 50% chance of receiving $X and a 50% chance of receiving $Y. Each High-Risk problem involves a choice between one of three options: each option is described as (X, P), which denotes a P% chance of receiving $X. Each Attention Check problem involves a choice between one of five options: each option, described above as X (= {1,3}) denotes a 100% chance of receiving $X. Pat’s choices are in italic and bold.

2.2 Treatment Groups

Testing our main Determined Choice hypothesis, previously detailed in the Introduction and returned to in Section 2.3, guides the design of our main treatments, the Inexperienced and the Determined treatment. We then aim to decompose our main effect, which guides the design of the Experienced treatments.

Our four main treatments—the Inexperienced, Experienced–R (Reminder), Experienced–NR (No Reminder), and Determined treatment—differ in three main ways, which we describe below. See Table 2 for an overview.

1. Commitment or restricted opportunity set: The first difference concerns the opportunity set of options that are available to a participant who exercises agency in the Agency Block. In all treatments, apart from the Determined treatment, a participant who insists on agency can choose to implement any of the investment options available in that problem. In contrast, in the Determined treatment, a participant who insists on agency is restricted and committed to implementing the option she previously selected in the Baseline Block.

2. Experience: This difference concerns the block in which participants decide upon agency.
In the *Inexperienced* treatment, participants first complete the Agency Block and then the Baseline Block, which is the opposite from all other treatments. Hence, only in the *Inexperienced* treatment do agents have no experience when deciding upon agency.

### 3. Information on previous choice:
We vary the information participants in the Agency Block have about their previous choice. In the *Experienced–R (Reminder)* treatment as well as the *Determined* treatment, participants who face an investment problem in the Agency Block are reminded of the choice they previously made in the Baseline Block. This is not the case in the *Experienced–NR (No Reminder)* treatment, and does not apply to the *Inexperienced* treatment.

<table>
<thead>
<tr>
<th></th>
<th><em>Inexperienced</em></th>
<th><em>Experienced</em></th>
<th><em>Determined</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>Previously made a choice</td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Reminded of previous choice</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Committed to previous choice</td>
<td>Z</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

We describe the conditions in which participants decide on agency in the Agency Block. In all but the *Inexperienced* treatment, the Baseline Block precedes the Agency Block—and therefore, participants have previously made a choice. In the *Experienced–R* and *Determined* treatments, participants are reminded of that previous choice when deciding whether to forgo agency. Only in the *Determined* treatment are participants, if they insist on agency, committed to implementing that previous choice.

#### 2.3 Main hypothesis: Determined Choice

Our main *Determined Choice* hypothesis is that that the extent to which individuals insist on agency decreases when they are less determined about their choice. Since the option that is implemented is already determined if participants insist on agency in the *Determined* treatment, this hypothesis implies that participants will be more willing to forgo agency in the *Inexperienced* treatment.

Our main hypothesis points to important variations in agency preferences across environments. It also has direct policy implications. If the goal is to have individuals give up agency and accept a recommended or default option, it is best to provide this option early in the decision process.

#### 2.4 Drivers of Determined Choice

Since we test the *Determined Choice* hypothesis by comparing agency preferences between the *Inexperienced* and the *Determined* treatment, we note that these two treatments differ in two ways which could drive *Determined Choice*. One concerns whether participants have experience with the problem at hand when deciding whether to forgo agency. The other concerns whether forgoing agency allows individuals to avoid making a decision, i.e., to avoid selecting an option out of all of the available options. Below, we discuss both of these two channels, *experience* and
*decision avoidance*, how we test for their role in accounting for our *Determined Choice* hypothesis, and finally, their policy implications.

**Experience**

When deciding whether to give up agency, participants have *experience* with the problem at hand in the *Determined* treatment but not in the *Inexperienced* treatment. There are several reasons why *experience* may increase preference for agency. There could be a direct effect of experience that may increase the demand for agency in general. In addition, experience could increase the extent to which participants’ choices are determined, in return, contributing to a demand for agency. For instance, if a participant has a Eureka moment when selecting an option in a problem for the first time, she may know—with certainty—that she should implement the same option again when facing a problem for the second time.

Similarly, if a participant has a strong preference for consistency, she may desire to implement the same option again when facing a problem for the second time. For the importance of experience or consistency see, e.g., Yariv, 2005; Agarwal et al., 2008; DellaVigna, 2009; Falk and Zimmermann, 2013, 2018.

To assess the role of *experience*—including the role of consistency that is only made relevant once participants have experience—we use the *Experienced* treatments. The extent to which the preference for agency increases from the *Inexperienced* treatment to the *Experienced* treatments provides a measure of the role of *experience* in accounting for our *Determined Choice* hypothesis.3

The policy implication of a significant *experience* effect is that the ideal time for an intervention to induce an individual to give up agency is before the individual ever makes the decision of interest.

**Decision Avoidance**

*Decision avoidance* may drive a greater demand to forgo making decisions in the *Inexperienced* compared to the *Determined* treatment. In the *Inexperienced* treatment, as well as in the *Experienced* treatments, insisting on agency requires participants to choose which option—out of all available options—to implement. This implies that participants may forgo agency in order to avoid making that decision. In the *Determined* treatment, participants do not have to select which option to implement out of available options. This is because the option that is implemented is already determined (i.e., it is the option they chose when they faced that problem the first time) if they insist on agency. Hence, participants who insist on agency have no decision to make; or, put differently, no decision to avoid by forgoing agency.

To assess the role of *decision avoidance*, we again use the *Experienced* treatments. But this

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3Differences between the *Experienced–NR* and the *Experienced–R* treatment capture effects of pure experience versus the additional benefit of being reminded of one’s previous choice. It turns out that being reminded of one’s choice has no impact in this environment. This is in contrast to work in guessing games; see Fragiadakis, Knoepfel and Niederle (2020).
time, we compare the Experienced treatments to the Determined treatment since all that varies across these treatments is whether participants may forgo agency in order to avoid selecting which option—out of all available options—to implement. The extent to which the preference for agency increases from the Experienced treatments to the Determined treatment provides a measure of the role of decision avoidance in accounting for our Determined Choice hypothesis.

Similar to the policy implication of a significant experience effect, a policy implication of a significant decision avoidance effect suggests that a good time for an intervention to induce an individual to give up agency is before the individual ever makes the decision of interest—and thus, when that individual may avoid making that decision by forgoing agency. However, a significant decision avoidance effect also suggests a policy implication to affect the agency preferences of an experienced individual. To tempt an experienced individual to give up agency, make sure the individual has to remake their decision by selecting which option they prefer from all available options. That is, make sure that the individual can only avoid remaking their decision by forgoing agency.

2.5 Alternative Predictions

The Determined Choice hypothesis predicts that individuals are more willing to give up agency when in the Inexperienced than in Determined treatment. In this section, we discuss two alternative predictions, and which models would make those predictions.

Since our investment problems are basically choices over lotteries, one alternative hypothesis with the opposite prediction, namely that participants are less likely to forgo agency in the Determined than in the Inexperienced treatment, comes from a model where participants have a strong preference for diversification (Agranov and Ortoleva, 2017; Dwenger, Kübler and Weizsäcker, 2018). This is because a preference for diversity or randomization predicts a preference to forgo implementing one’s previous choice again and hence to forgo agency in the Determined treatment. Only by accepting Pat’s choice is there a chance for randomization. This additional motive to give up agency does not apply in the Inexperienced treatment, since in the first block, which is the Agency Block in the Inexperienced treatment, participants do not know the nature of the second block of problems. If the change in agency preferences is driven by a strong preference for diversification, the policy implication would be that in such situations an individual is more willing to forgo agency after she makes a choice in the environment herself.

Another alternative hypothesis also predicts no difference in agency preferences between the Determined and the Inexperienced treatment. Specifically, homo economicus predicts that individuals have instant and free access to their complete preferences, so their agency preferences should not depend on whether they are considering those preferences for the first or second time. That said, by selecting lotteries as investment problems, we may decrease the chance of homo economicus, see e.g. Niederle and Vespa (2020) for evidence suggesting that preferences over
lotteries may not be readily available.

Finally, there are two literatures that are related to our environment but make no predictions as to how the strength of agency preferences may differ between the Inexperienced and the Determined treatment. First, a new literature documents the existence and importance of agency preferences, but does not model how those would change between these two treatments—see, for example, excellent work in Fehr, Herz and Wilkening (2013), Bartling, Fehr and Herz (2014), Owens, Grossman and Fackler (2014), Afzal et al. (2018), and Pikulina and Tergiman (2019). Second, there is an important literature that shows that the influence of information on subsequent choices depends on the timing of that information, see Babcock et al. (1995), Gneezy et al. (2016), Gneezy et al. (2020), and Saccardo and Serra-Garcia (2020). This literature does not apply to our environment because, by design, we eliminated effects related to the timing of information. As explained in Section 2.1, participants are never informed of what choices Pat made. We made this design choice precisely in order to eliminate that learning about Pat’s choices could influence our results.

2.6 Implementation Details

For our main study, we recruited Amazon Mechanical Turk participants with a U.S. IP address and who completed at least 100 HITs with an approval rating of 95%. We randomly assigned them to one of our four main treatments. Participants receive a $2 completion fee, plus additional payments from one randomly selected decision. This could result in additional payments from $0 to $100 (given the High-Risk problems). The average additional payment was $3.

3 Results

We focus on the 674 participants who correctly answer both attention checks in the Baseline Block. However, our results are robust to including those who answer either one incorrectly (see Online Appendix Figure 1 and Table 1).

3.1 Main Hypothesis: Determined Choice

As seen in Figure 1 Panel A, participants forgo agency and accept Pat’s choice in the Determined treatment in 5 of 16 problems, on average. By contrast, as seen in Figure 1 Panel B, participants forgo agency and accept Pat’s choice in the Inexperienced treatment in 8.9 of 16 problems, on average. This difference is statistically significant ($p < 0.01$) and implies that participants are almost twice as likely to forgo agency when their own choice is less determined.
because they are facing the problem for the first time.\textsuperscript{6} The results of a linear probability model in Column 1 of Table 3 confirm that when moving from the \textit{Determined} to the \textit{Inexperienced} treatment, the chance that a participant forgoes agency and accepts Pat’s choice increases from 31\% to 55\%, an increase of 24 percentage points or 77\%.

To summarize, we find strong support for a \textit{Determined Choice} effect: participants are more willing to forgo agency when their choice is less determined, as measured by the difference between the \textit{Determined} and \textit{Inexperienced} treatments.

### 3.2 The Role of \textit{experience} and \textit{decision avoidance}

We begin by noting that the two \textit{Experienced} treatments, with and without reminder, are very similar and do not significantly differ in how often participants insist on agency.\textsuperscript{7} For simplicity, we therefore combine the results into a single \textit{Experienced} treatment. To investigate the drivers of our \textit{Determined Choice} effect, we decompose it into an \textit{experience} effect and a \textit{decision avoidance} effect.

The \textit{experience} effect proves significant. Out of the 16 problems, the average number of times participants forgo agency significantly falls from 8.9 in the \textit{Inexperienced} treatment to 7.5 problems in the \textit{Experienced} treatment ($p < 0.01$).

The \textit{decision avoidance} effect also proves significant, and larger. Out of the 16 problems, the average number of times participants forgo agency significantly falls from 7.5 in the \textit{Experienced} treatment to 5 problems in the \textit{Determined} treatments.

This finding is confirmed when we consider the chance that a participant forgoes agency, as seen by the regression results shown in Table 3. Thus, while we find evidence for both effects—\textit{experience} and \textit{decision avoidance}—in accounting for our main \textit{Determined Choice} effect, \textit{decision avoidance} accounts for almost two-thirds of the total effect. This suggests that the ability to avoid making a decision proves key to participants’ willingness to forgo agency. When insisting on agency requires participants to choose an investment option—as in the \textit{Inexperienced} or the \textit{Experienced} treatment—participants are relatively willing to forgo agency to avoid making this decision.

These results have implications on how we think about the choice participants made in the Baseline Block, which they are reminded of in one of the \textit{Experienced} treatments, and which their options are reduced to in the \textit{Determined} treatment. Specifically, they suggest that when participants face an investment problem for the first time, they do not have a Eureka moment in which they determine their optimal investment option with certainty.

\textsuperscript{6}All statistical tests about differences in the average number of times that participants forgo agency are from \textit{t}-tests. All statistical tests about the chance that a participant forgoes agency are from linear probability models of the likelihood to forgo agency in a problem, with standard errors clustered at the participant level.

\textsuperscript{7}The average number of times that participants forgo agency is 7.8 versus 7.2 with and without reminder (two-sided \textit{t}-test, $p = 0.29$).
Rather, our results are more consistent with participants not viewing the choices they made when they faced an investment problem for the first time as fully informative for what they should choose when facing the same investment problem again. This could, for example, be because of the cognitive uncertainty surrounding their initial choice (Enke and Graeber, 2019). This may be why, even when participants are reminded of their initial choice in an investment problem, participants are keen to forgo agency—and avoid making a decision—when facing the same investment problem again.

Figure 1: Distribution of how often participants forgo agency

A: *Determined* treatment

B: *Inexperienced* treatment

C: *Experienced* treatment

There are 158 participants in the *Inexperienced*, 176 in the *Determined*, and 340 in the *Experienced* treatment (165 with and 175 without reminders).
Table 3: Linear probability model of likelihood to forgo agency

<table>
<thead>
<tr>
<th></th>
<th>All Problems</th>
<th>EG Problems</th>
<th>High-Risk Problems</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1)</td>
<td>(2)</td>
<td>(3)</td>
</tr>
<tr>
<td>Inexperienced</td>
<td>0.24***</td>
<td>0.25***</td>
<td>0.23***</td>
</tr>
<tr>
<td></td>
<td>(0.04)</td>
<td>(0.04)</td>
<td>(0.04)</td>
</tr>
<tr>
<td>Experienced</td>
<td>0.15***</td>
<td>0.16***</td>
<td>0.14***</td>
</tr>
<tr>
<td></td>
<td>(0.03)</td>
<td>(0.03)</td>
<td>(0.03)</td>
</tr>
<tr>
<td>Constant</td>
<td>0.31***</td>
<td>0.42***</td>
<td>0.31***</td>
</tr>
<tr>
<td></td>
<td>(0.03)</td>
<td>(0.06)</td>
<td>(0.03)</td>
</tr>
<tr>
<td>N</td>
<td>10784</td>
<td>8088</td>
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<tr>
<td>Controls</td>
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</tr>
</tbody>
</table>

Results from a linear probability model of the likelihood to forgo agency. Inexperienced and Experienced are indicators for a participant being in the Inexperienced and Experienced treatment, respectively. Columns 1 and 2 use data on all 16 problems, while columns 3 and 4 restrict attention to the 12 EG problems, and columns 5 and 6 to the 4 High-Risk problems. Controls include a participant’s age, a measure of risk aversion equal to the number of times (out of 12) the participant chose the safe option in EG problems in the Baseline Block, and indicators for whether the participant is male, has completed at least 4 years of college, and identifies as white. * p < 0.10, ** p < 0.05, *** p < 0.01. Standard errors are clustered at the participant level and shown in parentheses.

4 Discussion

To demonstrate the robustness of our main Determined Choice effect and to further validate our decision avoidance effect, we ran additional Experiments A1, A2, and A3. For full design details, see the Online Appendix. In this section, we focus on the main findings. For comparison, we once more restrict attention to participants who correctly answered both attention checks in the Baseline Block, which leaves us with 1,306 additional participants.

In Section 4.1, we show that we replicate our main Determined Choice effect. In Section 4.2, we discuss the robustness to the case where Pat’s choice is known, that is, when an individual is informed what choice is implemented in case she gives up agency. In Section 4.3, we confirm that participants react to the identity of Pat. Finally, in Section 4.4, we provide additional evidence on the role of decision avoidance in driving participants’ willingness to forgo agency in a slightly different environment.

In each of the next subsections we only compare individuals across treatments within the same experiment, since in each experiment participants are randomized across treatments.

4.1 Replication of the Determined Choice effect

Our main study documents a strong and significant Determined Choice effect. We find a 31% chance to forgo agency in the Determined treatment, which increases by 24 percentage points in the Inexperienced treatment (p < 0.01).

In Experiment A1, we have 386 participants in the Determined and Inexperienced treatment.
We find a 37% chance to forgo agency in the *Determined* treatment, which increases by 19 percentage points in the *Inexperienced* treatment ($p < 0.01$). We therefore replicate our *Determined Choice* effect.

### 4.2 The Role of Information on Pat’s choice

In all results discussed so far, participants are not informed of Pat’s choice, which is the option that is implemented if participants forgo agency. This ensured that there are no differential information effects across treatments. However, in some environments it may well be that individuals are informed of what choice would be implemented if they forgo agency. We therefore test whether the *Determined Choice* hypothesis holds in such an environment.

In Experiment A2, we have 365 participants in *Pat Known* variations of the *Determined* and *Inexperienced* treatment, where agents are informed of Pat’s choice; that is, which option is implemented if they decide to forego agency. We find a 60% chance of forgoing agency in the *Determined–Pat Known* treatment, which increases by 8 percentage points in the *Inexperienced–Pat Known* treatment ($p < 0.01$). Hence, our *Determined Choice* effect persists in an environment in which individuals are informed of the option that is implemented when they forgo agency.

While the difference between treatments is smaller, it is worth noting that many participants in the *Determined* treatment decide between implementing their previous choice and that same choice made by Pat. This is because Pat made common choices. Hence, we expect participants to be more likely to implement that choice by forgoing agency and accepting Pat’s choice, since this allows them to implement the same choice in a cheaper way.

### 4.3 The Role of Pat’s Choice Being Reasonable

As detailed in Section 2.1, we purposefully select Pat in a way to ensure that participants know Pat’s choices are “reasonable.” Pat is chosen to be the participant who made the most common choices in a prior study. To verify that participants pay attention to the description of Pat, even when they are not directly informed of the exact choice Pat made, Experiment A1 (previously detailed in Section 4.1) has an additional 190 participants in an *Inexperienced–Unusual Pat* treatment. Participants in this treatment are informed that Pat is the participant who made the least common choices in a prior study.

Compared to the 56% chance to forgo agency in the *Inexperienced* treatment, participants in the *Inexperienced–Unusual Pat* treatment are 17 percentage points less likely to forgo agency ($p < 0.01$). Therefore, participants pay attention to the description of Pat’s choices and are not “blindly” giving up agency.

### 4.4 Additional Evidence on Decision Avoidance

As explained in Section 3.2, we found substantial and significant evidence of decision avoidance by comparing participants’ willingness to forgo agency in the *Experienced* to the *Determined*
treatment. We therefore found that among experienced participants there was a strong desire for decision avoidance. Furthermore, recall that decision avoidance was the main driver of the Determined Choice effect.

To further show the importance of decision avoidance, we ask whether it is present in a slightly different setting among inexperienced participants. We design two new treatments, the Avoidable Decision and Unavoidable Decision treatment, in Experiment A3. In both treatments, participants first face a modified Agency Block and then the Baseline Block. In both Agency Blocks, participants know that—after they make all of their agency decisions—two problems will be randomly chosen to be “required-own-choice” problems. In the required-own-choice problems, a participant is required to choose an investment option which will then be implemented, even if the participant initially opted to forgo agency. Our two treatments vary in how we elicit participants’ choices in these two required-own-choice problems. This variation will affect the participants’ ability to practice decision avoidance between the two treatments.

In the Avoidable Decision treatment, a participant who forgoes agency in an investment problem only has to indicate which option she would choose if the investment problem turns out to be a required-own-choice problem. Hence, in all but two problems the participant can practice decision avoidance. A participant who forgoes agency is very likely, though not definitely, able to avoid choosing an option herself.

In the Unavoidable Decision treatment, participants have to indicate which option they would choose in all investment problems. If a participant insists on agency in an investment problem, the option she chose is implemented with certainty. If the participant forgoes agency in an investment problem, the option she chose is only implemented if the investment problems turns out to be a required-own-choice problem. But, regardless, since the participant always has to indicate which option they would choose in a problem, she cannot practice decision avoidance in any problem.

We have data from 365 participants in Experiment A3. We find a 43% chance to forgo agency in the Unavoidable Decision treatment. This increases by 9 percentage points in the Avoidable Decision treatment ($p < 0.05$). We therefore find a significant decision avoidance effect in this new environment among inexperienced participants.

Moreover, we note that the 52% chance to forgo agency in the Avoidable Decision treatment is very similar to the 55-56% chance that we found in the Inexperienced treatments when considering both our main study and Experiment A1. This is reassuring since the Avoidable Decision and the Inexperienced treatment differ in only two of the 16 investment problems. In the Avoidable Decision treatment two randomly selected problems turn into required-own-choice problems, with the requirement that a participant who opted to forgo agency has to, at the end of the Agency Block, select which option to implement in these two problems. This small change seems not to significantly affect agency preferences, quite in contrast to the large change made in the
5 Conclusion

A motivating example for our paper is that a boss who is contemplating whether to implement the same option in a problem she experienced before is more likely to insist on agency. She is less likely to have her trusted employee implement a solution than a boss who encounters a problem for the first time. Our Determined Choice hypothesis states that individuals insist less on agency the less they are determined in their choice. We provide strong evidence for our hypothesis by comparing agency preferences between the Determined and Inexperienced treatment.

In the Determined treatment, an individual decides whether to forgo agency in the second block of problems, where the alternative is to re-implement the choice she made the first time she encountered the problem in the first block of problems. In contrast, in the Inexperienced treatment, an individual decides whether to forgo agency in the first block of problems, where the alternative is to select an option among all available options herself. While on average individuals forgo agency only 31% of the time in the Determined treatment, this increases by 77% in the Inexperienced treatment.

We show that about one-third of the total effect can be attributed to experience, the fact that individuals encounter the problem for a second time. About two-thirds of the effect can be attributed to decision avoidance. Specifically, experienced participants, even if they are reminded of their previous choice, are much more likely to forgo agency if it allows them to avoid choosing which option to implement. That is, they are much more likely to forgo agency when they have the opportunity to implement any possible option compared to when they are committed to implementing their previous choice.

Our findings have immediate policy implications. If the goal is to have individuals forgo agency—by accepting a recommendation by others—then it is useful to catch them early in the decision process, i.e., when they encounter a problem for the first time and are not yet determined about which option to implement. In case individuals already have experience with the problem, decision avoidance suggests that it can be useful to require individuals who insist on agency to remake their decisions, i.e., to select among all possible options.

Our results suggest two avenues of future research. First, our results strongly suggest that individuals’ decisions appear more malleable when they are less determined about what to choose in a problem. While we show this in the context of agency decisions, future work may investigate whether individuals—when they are less determined about what to choose in a problem—are also more easily influenced by information, defaults, framing effects, etc. This could serve as an explanation for a dichotomy in the behavioral literature: while some papers show that individuals are very malleable in their decisions (e.g., framing effect), others show that it is really difficult to change an individual’s decision (e.g., habit formation).
The second avenue concerns implications of *decision avoidance*. We provide evidence that individuals select to avoid costs associated with decision-making. While this is consistent with some work on costly thinking (see, e.g., Mackowiak, Matejka and Wiederholt, 2018 or Gabaix, 2019), future work could study the full ramifications of the fact that decisions are costly, and investigate whether this could generate new biases or perhaps explain existing ones.
References


