

# Decision importance as a cue for deferral

Job M. T. Krijnen\*    Marcel Zeelenberg†    Seger M. Breugelmans‡

## Abstract

A series of 7 experiments found that people defer important decisions more than unimportant decisions, and that this is independent of choice set composition. This finding persists even when deferral does not provide more flexibility (Experiment 2), when deferral has potential disadvantages (Experiment 3), and when deferral has no material benefits and is financially costly (Experiment 4). The effect of importance on deferral was independent of potential choice conflict (Experiment 5 & 6). The only exception was a situation in which one alternative was clearly dominant; here decision importance did not affect the likelihood of deferral (Experiment 7). These results suggest that people use decision importance as a cue for deferral: more important decisions should take more time and effort.

Keywords: deferral, decision importance, heuristics, choice conflict

## 1 Introduction

People often do not decide right away. Instead, they defer their decision to return to it at a later time. Think of a young couple delaying the decision to buy their first house. Or a child intending to buy a gift for its mother, but repeatedly walking out of stores empty-handed. Deferral can lead to better decisions by enabling a search for additional information or for better alternatives. However, deferral can also be risky. In the examples above, house prices might increase or gifts might be sold out. Another example—one that inspired our thinking on this topic—is the prevalent deferral of retirement saving decisions, which may negatively affect retirement income (Munnell, Golub-Sass & Webb, 2011). People who postpone their commitment to a retirement plan or strategy create time to search for more information or better plans, but while they do so, they are not saving yet. Because deferral may be an important determinant of the outcomes of people's decisions, it is valuable to know what causes people to defer a decision. Why are some decisions made right away, whereas others are deferred?

Research on the determinants of deferral has focused primarily on the composition of the choice set and the associated difficulty of choosing (Dhar, 1997; Tversky & Shafir, 1992). People are more likely to defer a decision when they find it difficult to choose, which is particularly the case when the alternatives are close in attractiveness (i.e., when there is

decisional conflict). In this article we examine another factor that may affect the likelihood of deferral—one that can be independent of the composition of the choice set and that is intrinsic to the decision itself. This factor is decision importance.

Decision importance can be defined as the potential impact of the decision on people's lives. A decision is more important when the topic it concerns is central to a person's values or identity, or when its consequences have more impact compared to other decisions (Harris & Sutton, 1983). For example, choosing a partner is more important when it concerns serious dating instead of a night out, and choosing whether to enroll in a retirement plan is more important when it concerns a large percentage of retirement income compared to when it concerns a small percentage. A decision can be important because its consequences reach far into the future, or a decision can be important because it affects many others and the decision-maker is accountable for the consequences. Yet, these different ways in which a decision can be important all refer to the potential impact of the decision on a person's life.

Interestingly, decision importance may be a double-edged sword. On the one hand, it can easily be argued that people come to better decisions when the outcomes are more important. Let us illustrate this intuition by returning to the example of retirement saving. Governments, retirement funds, and employers try to motivate people to start saving because people typically start too late. One strategy is to emphasize the importance of retirement saving, building on the assumption that this helps people to make better decisions. Policies like employer matching and tax benefits make enrollment in a retirement plan financially attractive and thus more important because of its greater impact on future income (Antolín, De Serres & De la Maisonnette, 2004). Financial education and marketing communication further

This research was supported by a NETSPAR Small Vision Grant. Support from the Basic Research Program of the National Research University Higher School of Economics to the third author is gratefully acknowledged.

Copyright: © 2015. The authors license this article under the terms of the Creative Commons Attribution 3.0 License.

\*Tilburg University, PO Box 90153, 5000LE Tilburg, The Netherlands, Email: j.m.t.krijnen@tilburguniversity.edu.

†Tilburg University.

‡Tilburg University, National Research University Higher School of Economics

emphasize the importance of retirement saving. For example, the US Department of Labor says “Your employer’s retirement saving plan is an essential part of your future financial security. It is *important* [emphasis added] to understand how your plan works and what benefits you will receive.” (U.S. Department of Labor, Employee Benefits Security Administration, 2013, p. 1). In a similar vein, the US governmental financial education website MyMoney.gov introduces the topic of saving and investing by saying “Saving is a key principle. People who make a habit of saving regularly, even saving small amounts, are well on their way to success. It’s *important* [emphasis added] to open a bank or credit union account so it will be simple and easy for you to save regularly.” (U.S. Department of the Treasury, Financial Literacy and Education Commission, n.d.).

Lay people share the intuition that emphasizing the importance of saving for retirement is a good idea. We presented a scenario to one hundred US participants via Amazon Mechanical Turk ( $M_{age} = 32.18$ , 44% female) that described Rick, who owns a company and wants more of his employees to enroll in the retirement plan he offers. Rick “organizes a meeting and invites a financial expert, who explains to all employees the importance of saving for retirement.” We asked participants: “Do you think that, after this meeting, Rick’s employees are (1) more likely to enroll in the retirement plan, (2) just as likely to enroll in the retirement plan as they were before, or (3) less likely to enroll in the retirement plan?” Seventy-five percent of the participants expected that employees would be more likely to enroll in a retirement plan after the importance of retirement was explained. None of the participants expected that emphasizing the importance of retirement saving would have a negative effect.

However, increasing or emphasizing the importance of a decision may actually have a negative side effect that has been relatively ignored until now. When making decisions, people trade off speed with accuracy. Investing more time and effort in decisions is anticipated to lead to more accurate decisions (Kleinmuntz & Schkade, 1993; Payne, Bettman & Luce, 1996). This is also reflected in everyday expressions, for example with the advices to “think twice” or to “sleep on it” when making important decisions. However, this may cause people to postpone important decisions, precisely because they have high ambitions and want to invest more time and effort (O’Donoghue & Rabin, 1999). Based on this reasoning, we expect that people use decision importance as a cue for deferral.

In this article, we set out to test whether an increase in decision importance *increases* deferral. It is of course true that people may have many different reasons to defer important decisions more than unimportant decisions, of which many have been studied before (e.g., Dhar, 1997; Tversky & Shafir, 1992). For instance, important decisions often involve choosing from large, complex choice sets with con-

flicting alternatives. However, the rank-order of decisions in terms of importance can be independent of the choice set composition. A high-stake retirement saving decision may involve the same set of alternatives as a low-stake retirement saving decision.

People may also defer important decisions more than unimportant decisions because searching for information and alternatives, or maintaining the flexibility to switch, can be more beneficial for important than for unimportant decisions. People may even defer important decisions simply because deferral is free and can do no harm. Yet again, this is not necessarily the case. For some important decisions, such as a choice between retirement plans, deferral may turn out to be costly.

That is why we want to explore whether the effect of importance on deferral is independent of the composition of the choice set and occurs even when deferral does not provide more flexibility, bears a risk, has no material benefits, and has financial costs. Do people in fact defer an important decision not because of the characteristics of the choice set or because of the benefits of deferral, but simply because the decision is important?

## 1.1 Outline of the studies

We conducted seven experiments to examine whether decision importance increases a preference for deferral. All participants were US residents, recruited and paid online via Amazon Mechanical Turk (MTurk). Participant samples from MTurk are more heterogeneous than for example college samples and provide decent quality data (see Paolacci & Chandler, 2014). We used a screening procedure to make sure that participants never took part in more than one of the experiments.

In all experiments, participants indicated whether they would choose one of the alternatives, or whether they would defer the decision. This methodological feature is necessary to test our hypotheses, but we realize that explicitly presenting deferral as another option may affect the rate of deferral. This means that the absolute deferral rate in our experiments may be higher than in situations where deferral is not explicitly mentioned. Because this effect is expected to be similar across conditions it cannot explain effects of the importance manipulation between conditions, which is the main focus of our studies.

After an initial demonstration that people prefer to defer important decisions more than unimportant decisions independent of choice set composition (Experiment 1), we tested whether this finding would hold when deferral does not provide more flexibility (Experiment 2), when deferral is potentially disadvantageous (Experiment 3), and when deferral has no material benefits and is financially costly (Experiment 4). In the second part of this article, we explore the boundaries of importance as a cue for deferral by testing

whether the effect persists under different levels of choice conflict (Experiment 5 and 6), and in a situation where the choice set contains one dominant alternative (Experiment 7).<sup>1</sup>

## 2 Experiment 1: Deferral of important decisions

### 2.1 Method

Two hundred MTurk workers ( $M_{\text{age}} = 29.18$ ,  $SD = 8.68$ , 35.5% female) completed a survey and received \$0.10. Participants were randomly assigned to an 80% or a 3% condition. On the first page, they read the following: “Imagine that you receive a letter from your employer. There are some attractive possibilities to save more for your retirement. On the next page you are going to make a decision about the available retirement plans. This decision will affect about 80% [3%] of your income during retirement.”

To make sure that participants had read the relevant information, they could proceed only after correctly answering the question “what percentage of your retirement income could be affected by this decision?”. Those who answered incorrectly were again prompted with the scenario and the question until they answered correctly. Participants then indicated to what extent they agreed with three statements about the decision on a slider scale ranging from *strongly disagree* (0) to *strongly agree* (100). They responded to “the decision is important”, “the decision will be easy”, and “the decision will be difficult”. The ratings for ease (reverse-scored) and difficulty were combined into a single measure of decision difficulty,  $r(198) = .77$ . The expectation was that participants would anticipate the decision to be more important and more difficult when it concerned a larger percentage of their income during retirement. On the next page, participants read about the decision: “The letter from your employer describes the most popular retirement plan. This plan, Plan A, is relatively stable and seems to fit your needs. There are many other possible plans; information about these can be found on a website. Remember that the result of this decision will determine about 80% [3%] of your retirement income. You could now either choose to participate in Plan A by checking a box and returning the letter, or you could look for more information on a website and decide later. What would you do in this situation?”

This decision to participate in Plan A or defer and search for other alternatives (adopted from Tversky & Shafir, 1992) was our main dependent variable.

### 2.2 Results & discussion

Participants in the 80% condition rated the decision as significantly more important ( $M = 90.20$ ,  $SD = 13.71$ ) than participants in the 3% condition ( $M = 68.28$ ,  $SD = 25.69$ ),  $t(198) = 7.53$ ,  $p < .001$ ,  $d = 1.06$ . Participants would defer the decision more often in the 80% condition (87%) than in the 3% condition (69%),  $\chi^2(1, N = 200) = 9.44$ ,  $p = .002$ ,  $\phi = .22$ . Across condition, decision importance and decision difficulty were positively correlated,  $r(198) = .50$ ,  $p < .001$ . Participants in the 80% condition expected the decision to be more difficult ( $M = 71.54$ ,  $SD = 18.19$ ) than participants in the 3% condition ( $M = 49.58$ ,  $SD = 23.40$ ),  $t(198) = 7.41$ ,  $p < .001$ ,  $d = 1.05$ .

People defer important decisions more than unimportant decisions, even when the choice set is the same in both situations. This finding is consistent with the idea that people use decision importance as a cue for deferral.

## 3 Experiment 2: Flexibility and deferral

Deferring decisions simply because they are important can be advantageous when one uses the extra time to gather relevant information or to search for additional alternatives, and this effect is largest for important decisions. In other words, deferral often has the advantage of flexibility. However, sometimes a decision-maker retains this flexibility to search for better options, even after choosing one alternative. There are two possibilities as to what would happen in situations where this is the case. On the one hand, if people defer important decisions more because deferral provides the flexibility to find more information and better alternatives, we would expect them to not do so when this flexibility is the same after committing to one alternative. On the other hand, if people use importance as a cue for deferral, we would expect them to defer important decisions more, regardless of whether deferral provides more flexibility or not.

We provided participants with the scenario of Experiment 1, except this time we explicitly stated that participants could “switch plans or quit at any time.” This detail is crucial, in that it now made little sense to defer for the sake of keeping other possible alternatives available. In fact, participants always had the same possibilities to switch or quit, regardless of whether they enrolled or deferred. Deferral thus provided the same flexibility as choosing right away. One could even argue that deferral was sub-optimal, because participants would be saving less if they would defer than if they would choose Plan A right away. In the worst case, enrolling in Plan A would be a “quick fix” until the participant would find the perfect retirement plan. If participants would defer the important decision more than the unimportant decision, even in this situation, then this would support the notion of people using importance as a cue for deferral.

<sup>1</sup>See online supplement for all materials used in the experiments.

### 3.1 Method

Three hundred and two MTurk workers ( $M_{\text{age}} = 31.75$ ,  $SD = 9.45$ , 39.4% female) completed the survey and received \$0.15. Participants were randomly assigned to the 80% or 3% conditions of Experiment 1. We added the sentence: “You can switch between plans or quit at any time.” To make sure that participants had read the relevant information, they could proceed only after correctly answering the questions “what percentage of your retirement income could be affected by this decision?” and “will you be able to switch between plans or quit at any time?”. Those who answered incorrectly were again prompted with the scenario and the question until they answered correctly. The rest was identical to Experiment 1.

### 3.2 Results & discussion

Participants in the 80% condition rated the decision as significantly more important ( $M = 89.19$ ,  $SD = 15.43$ ) than participants in the 3% condition ( $M = 77.70$ ,  $SD = 18.79$ ),  $t(300) = 5.80$ ,  $p < .001$ ,  $d = 0.67$ . Participants also deferred the decision more often in the 80% condition (79.3%) than in the 3% condition (65.1%),  $\chi^2(1, N = 302) = 7.58$ ,  $p = .006$ ,  $\phi = .16$ . Across condition, the two-item measure of decision difficulty,  $r(300) = .84$ , and decision importance were correlated,  $r(300) = .41$ ,  $p < .001$ . Participants in the 80% condition expected the decision to be more difficult ( $M = 67.49$ ,  $SD = 21.65$ ) than participants in the 3% condition ( $M = 54.90$ ,  $SD = 22.76$ ),  $t(300) = 4.92$ ,  $p < .001$ ,  $d = 0.57$ .

As in Experiment 1, participants in Experiment 2 indicated that they would defer the important decision more than the unimportant decision. This time, however, deferral could not be explained by retention of flexibility, because switching or quitting was possible at any time, both after deferral and after immediate enrollment. A test comparing the observed frequencies of deferral and choice in Experiment 1 and 2 with the frequencies that would be expected if the results in both experiments were the same is not significant,  $\chi^2(2) = 2.84$ ,  $p = .242$ . The results of Experiment 1 and 2 are thus not different, meaning that the effect of importance on deferral is unaffected by the retention of flexibility after choice.

## 4 Experiment 3: Risky deferral

In many situations, deferral bears a risk. The consequences of choosing an alternative might change or alternatives might become unavailable over time. A clear example is the deferral of retirement saving decisions, which may negatively affect retirement income, as was the case in Experiment 2. Other instances are the reluctance to decide when buying a house, which can be costly in a tight market where houses sell quickly and house prices increase across the

board, postponing going to the doctor while one’s condition worsens, or pushing forward the decision to have children, which increases the likelihood of infertility and birth defects. In some situations it may be unclear that deferral bears a risk, whereas in other situations people are well aware of this risk. In Experiment 3, we employed a consumer setting—the purchase of a laptop—to ask whether people would defer important decisions, even when it is clear that deferral has potential disadvantages, such as stock out.

This time we manipulated decision importance indirectly by stating that the purchase was either irreversible or reversible. We expected that participants would perceive the irreversible purchase as more important than the reversible purchase (Sela & Berger, 2012; Schrift, Netzer & Kivetz, 2011), and that they would thus defer the irreversible decision more than the reversible decision.

We also adopted Dhar’s “learning phase” (1997) to rule out one possible explanation for the deferral of important decisions. In previous experiments, participants could have been expecting to find more or better alternatives after deferring when the decision was important than when the decision was unimportant. Because now all participants reviewed all available alternatives before making the decision, a difference in expectations about the remaining alternatives would not explain an effect of purchase reversibility on preference for deferral.

### 4.1 Method

Three hundred and five MTurk workers ( $M_{\text{age}} = 29.42$ ,  $SD = 9.12$ , 31.8% female) participated and received \$0.15 in return. Participants were randomly assigned to either the irreversible or reversible condition. Participants read: “Imagine that you are planning to buy a laptop. The alternatives you are considering are all on a special sale at a chain of stores in your city. They all cost \$850, which you think is a good price.” Participants in the irreversible condition then read: “The store does not offer the option to return your laptop; once you buy a laptop, the purchase is irreversible.” Participants in the reversible condition instead read: “The store offers a special 6-month try-out period. Within this period, if you are not satisfied with your initial choice you are allowed to return it and choose another one.” Participants were then shown a list of all five available laptops under consideration. They were asked to review the list carefully and to make sure that they were familiar with the characteristics. Laptops were described by weight, internal memory, hard drive storage space, and battery life (e.g., Laptop A: 3.0 lbs, 4 GB internal memory, 320 GB hard drive, 8 hours battery life). Similar to the previous experiments, we checked whether participants read the scenario by asking: “Will you be able to return the chosen laptop if you do not like it?” Those who answered incorrectly were again prompted with the scenario and the question until they answered correctly.



Participants also rated how important the decision would be on a slider scale ranging from 0 (*not important at all*) to 100 (*very important*).

On the next page, participants read that the first store they visited only offered two of the five laptops. All participants saw the same two alternatives, Laptops B and C, including their characteristics. It was said that if they would decide not to purchase one of these alternatives right away, they may not be available later. As our main dependent variable, we asked what they would do in this situation. They could choose either Laptop B or C, or they could choose to “go to another store and look for one of the other alternatives”.

## 4.2 Results & discussion

Participants in the irreversible condition rated the decision as more important ( $M = 76.71$ ,  $SD = 25.49$ ) than those in the reversible condition ( $M = 70.03$ ,  $SD = 26.01$ ),  $t(303) = 2.27$ ,  $p = .024$ ,  $d = 0.26$ . Participants would also defer more in the irreversible (32.7%) than the reversible condition (21.1%),  $\chi^2(1, N = 305) = 5.24$ ,  $p = .022$ ,  $\phi = .13$ . Thus, the results of Experiment 3 replicate those of Experiments 1 and 2, even though the manipulation in Experiment 3 seems to have had a weaker effect on the decision importance rating than the previous manipulations.

We draw two conclusions from this experiment. First, because all participants read the same list of alternatives that could become available in case of deferral, the deferral of important decisions cannot be attributed to a difference in expectations. Second, people defer important decisions more than unimportant decisions, even when it is clear that deferral is potentially disadvantageous.

## 5 Experiment 4: Costly deferral

Experiment 4 takes the idea of importance as a cue for deferral one step further, and creates a situation where deferral has no material benefits because it cannot produce more information. Also, we manipulated the financial costs of deferral, such that in two of the four conditions deferral was not only non-instrumental, but also financially costly. If people use importance as a cue for deferral, we would expect participants to defer important decisions when deferral has no material benefits and even when it has a financial cost.

### 5.1 Method

A total of 323 MTurk workers ( $M_{\text{age}} = 28.82$ ,  $SD = 8.10$ , 35.3% female) participated in return for \$0.20. Participants were randomly assigned to one of the conditions of the 2 (career impact: large impact vs. small impact) X 2 (deferral costs: \$20 vs. no costs) between-participants design. Participants in the large impact [small impact] conditions read the

following scenario: “Your employer offers you the opportunity to enroll in a ‘career development course’. Participating in such a course will improve your professional skills and will provide you with expertise and experience relevant to your career. You want to participate in one of the courses. However, you know that the choice between courses is extremely [not very] important for your career. This decision has a huge [almost no impact] on your future. Below are the three available courses with all the relevant pros and cons. There are no other options and you know that there is no other information available. All three courses start in twelve months. You can either decide right away and enroll in one of these three courses immediately, or you can wait and enroll in one of these courses next month.”

We manipulated deferral costs, by adding the sentence “only if you enroll immediately, you will get a \$20 discount.” in the \$20 conditions. We then described the alternatives by listing two pros and two cons for each of the three courses. As the dependent variable, participants indicated whether they would either immediately enroll in Course A, Course B, Course C, or whether they would wait and make their decision next month.

On a next page participants responded to eight statements about the decision between the three courses on a slider scale ranging from strongly disagree (0) to strongly agree (100). The first two statements were asked to check whether decisions differed in the way that we set out to: “the decision between courses is important” and “waiting until next month (instead of choosing immediately) has disadvantages.” The other six statements were asked for exploratory purposes and tapped into the decision difficulty (“the decision between courses is difficult”), anticipated regret (“I am afraid I will regret my decision later”), aspiration level (“I want to be completely certain about which course I like most before making the decision”), benefits of deferral (“waiting one month will lead to a better decision”), similarity (“all three courses seemed similar to me”), and equality in attractiveness (“all three courses seemed equally attractive to me”).

### 5.2 Results & discussion

A career impact X deferral costs ANOVA yielded a main effect of career impact on decision importance,  $F(1, 319) = 48.965$ ,  $p < .001$ ,  $\eta_p^2 = .13$ . Choosing a course was perceived as more important in the large impact conditions ( $M = 78.45$ ,  $SD = 16.11$ ) than in the small impact conditions ( $M = 60.73$ ,  $SD = 27.77$ ). There was no main effect of deferral costs,  $F(1, 319) = 0.046$ ,  $p = .830$ , and no interaction effect,  $F(1, 319) = 1.01$ ,  $p = .316$ .

Another career impact X deferral costs ANOVA tested the effect on the perceived disadvantages of deferral. The analyses yielded a significant main effect of deferral costs,  $F(1, 319) = 20.685$ ,  $p < .001$ ,  $\eta_p^2 = .06$ . Deferral was perceived

Table 1: Number of participants deferring per condition as a proportion of the total number of participants per condition for Experiment 4. The percentage of participants deferring in each condition is in parentheses.

Career impact condition	Deferral costs condition		
	No costs	\$20	Total
Small impact	12 / 81 (14.8%)	9 / 81 (11.1%)	21 / 162 (13.0%)
Large impact	22 / 80 (27.5%)	18 / 81 (22.2%)	40 / 161 (24.8%)
Total	34 / 161 (21.1%)	27 / 162 (16.7%)	61 / 323 (18.9%)

as having more disadvantages in the \$20 conditions ( $M = 68.49$ ,  $SD = 25.78$ ) than in the no costs conditions ( $M = 55.12$ ,  $SD = 26.95$ ). The ANOVA indicated no main effect of career impact,  $F(1, 319) = 0.033$ ,  $p = .86$ , and no interaction effect,  $F(1, 319) = 0.756$ ,  $p = .385$ .

A logistic regression tested how the two experimental manipulations (career impact and deferral costs, without the interaction term<sup>2</sup>) affected the preference for deferral. Career impact had a significant effect on deferral, odds ratio = 2.23,  $p = .007$ . In the small impact conditions 13% of participants deferred, whereas in the large impact conditions 24.8% of participants did so. Deferral costs had no effect on the likelihood of deferring, odds ratio = 0.74,  $p = .298$ . See Table 1 for the distribution of participants' decisions per condition.

Decision importance was positively correlated with decision difficulty,  $r(323) = .22$ ,  $p < .001$ , and aspiration level,  $r(323) = .21$ ,  $p < .001$ . Participants who rated the decision as more important found it more difficult and wanted to be more certain before making a decision.

The pattern of results is consistent with the hypothesis that people defer important decisions more than unimportant decisions, regardless of whether deferral bears financial costs. The findings exclude the possibility that people simply defer important decisions when deferral can do no harm. We see that people would defer important decisions more than unimportant decisions, even in situations where deferral does not provide more flexibility (Experiment 2), where deferral itself has potential disadvantages (Experiment 3), and where deferral cannot lead to additional information and is financially costly (Experiment 4).

## 6 Experiment 5: Deferral and conflict

The findings reported above suggest that people may use decision importance as a cue for deferral. We now turn to the question of how the use of decision importance as a cue for deferral relates to previous work on choice conflict and

deferral (Dhar, 1997; Tversky & Shafir, 1992). Is the deferral of important decisions independent from the possible effects of choice set composition? Experiments 5 and 6 explored this question and are nearly identical; we manipulated both decision importance and choice set composition, by presenting either one alternative or two conflicting alternatives. Our goal was to see whether people would defer important decisions more than unimportant decisions, regardless of whether the choice set consists of one alternative, or of two conflicting alternatives.

### 6.1 Method

A total of 603 MTurk workers ( $M_{\text{age}} = 27.52$ ,  $SD = 8.30$ , 29.4% female) participated in return for \$0.10. Participants were randomly assigned to one of the conditions of the 2 (choice set: 1 alternative vs. 2 alternatives) X 2 (renting period: 2 years vs. 2 months) between-participants design. Participants read: "Imagine that you are looking for an apartment to rent for a period of two years [two months]. On the next page you are going to make a decision about an available apartment." We asked the following instruction attention check: "According to the situation, for how long are you going to rent the apartment?". Those who answered incorrectly were again prompted with the scenario and the question until they answered correctly. Participants rated the importance of the decision ("How important is this decision regarding your new apartment?") on a slider scale ranging from *not at all important* (0) to *very important* (100).

On a next page, participants in the 1 alternative conditions read: "A website offers an apartment that fits your needs and is immediately available for a two-year [two-month] rent period. The apartment costs \$780 per month, which you think is a very good price. What would you do in this situation?"

Participants in the 2 alternatives conditions read: "A website offers two apartments that fit your needs and are immediately available for a two-year [two-month] rent period. One apartment costs \$780 per month. The other is slightly better located and costs \$820 per month. You think both are very good prices. What would you do in this situation?"

Participants indicated whether they would rent the \$780 apartment (available in all conditions), rent the slightly bet-

<sup>2</sup>A test including the interaction term showed no significant interaction effect.

Table 2: Number of participants deferring per condition as a proportion of the total number of participants per condition for Experiment 5 and 6. The percentage of participants deferring in each condition is in parentheses.

Renting period condition	Experiment 5		Experiment 6	
	1 alternative	2 alternatives	1 alternative	2 alternatives
2 months	88 / 152 (57.9%)	61 / 151 (40.4%)	88 / 154 (57.1%)	74 / 146 (50.7%)
2 years	117 / 150 (78.0%)	80 / 150 (53.3%)	119 / 153 (77.8%)	92 / 154 (59.7%)

ter located \$820 apartment (available in the 2 alternatives conditions), or wait until they would learn more about various other alternatives.

## 6.2 Results & discussion

An ANOVA yielded a significant main effect of renting period on decision importance,  $F(1, 599) = 80.720, p < .001, \eta_p^2 = .12$ . Choosing an apartment was perceived as more important in the 2 years conditions ( $M = 87.43, SD = 13.31$ ) than in the 2 months conditions ( $M = 73.73, SD = 22.85$ ). The main effect of choice set,  $F(1, 599) = 2.345, p = .126$ , and the interaction,  $F(1, 599) = 0.155, p = .693$ , were not significant.

We conducted a logistic regression to explore how the manipulations (choice set, renting period, without the interaction term<sup>3</sup>) affected the likelihood of deferral (coded 0 for participants who chose either one of the apartments and 1 for those who deferred). Renting period affected the likelihood of deferring, odds ratio = 2.05,  $p < .001$ . In the 2 months conditions 49.2% of participants would defer, whereas in the 2 years conditions 65.7% of participants would do so. Choice set also had a significant effect on deferral, odds ratio = 0.41,  $p < .001$ . In the 1 alternative conditions 67.9% of participants would defer, whereas in the 2 alternative conditions 46.8% of participants would do so. See Table 2 for the distribution of participants' decisions per condition.

## 7 Experiment 6: Deferral and conflict II

This experiment is an almost direct replication of Experiment 5. The only difference was that the price of the added alternative in the 2 alternatives conditions was changed from \$820 to \$840 (based on pilot testing) to create a more conflicting choice set. Six hundred and seven MTurk workers ( $M_{\text{age}} = 27.23, SD = 8.45, 32.5\%$  female) participated in return for \$0.10.

Participants in the 2 years conditions rated the decision between apartments as significantly more important ( $M =$

85.65,  $SD = 15.26$ ) than those in the 2 months conditions ( $M = 75.34, SD = 21.33$ ),  $F(1, 603) = 46.887, p < .001, \eta_p^2 = .07$ . There was again no main effect of choice set,  $F(1, 603) = 0.019, p = .892$ , and no interaction,  $F(1, 603) = 0.055, p = .815$ .

A logistic regression<sup>4</sup> again showed a significant effect of renting period on decision deferral, odds ratio = 1.91,  $p < .001$ . In the 2 months conditions 54.0% of participants would defer, whereas in the 2 years conditions 68.7% of participants would do so. There was again a main effect of the choice set size, odds ratio = 0.58,  $p = .002$ . See Table 2 for the distribution of decisions per condition.

Experiments 5 and 6 thus found that people would defer decisions based on the importance of the decision, regardless of whether the choice set consisted of only one alternative, or of two conflicting alternatives. The final experiment asked whether people would defer important decisions even when a clearly dominant alternative is available. In other words, is decision importance used as a cue for deferral, even when there is little to no ambiguity about the time and effort actually needed to come to a good decision?

## 8 Experiment 7: Deferral with a dominant alternative

### 8.1 Method

Three hundred MTurk workers ( $M_{\text{age}} = 28.75, SD = 10.23, 45.7\%$  female) participated in return for \$0.10. Participants were randomly assigned to either the 2 years or the 2 months condition. They responded to a scenario similar to the corresponding 2 alternatives conditions in Experiment 5 and 6, with the only difference being the description of the two available apartments: apartment A cost \$820 per month, and apartment B cost \$780 per month and was slightly better located. Apartment B thus dominated apartment A on both price and location.

<sup>3</sup>A test including the interaction term showed no significant interaction effect.

<sup>4</sup>As in Experiment 5, we omitted the interaction term. A test including the interaction term showed no significant interaction effect.

## 8.2 Results & discussion

Choosing an apartment for a 2-month period was seen as less important ( $M = 76.24$ ,  $SD = 21.58$ ) than choosing one for a 2-year period ( $M = 85.60$ ,  $SD = 14.91$ ),  $t(298) = 4.37$ ,  $p < .001$ ,  $d = 0.50$ . Only three out of 300 participants chose the dominated apartment A. The rest chose either apartment B or deferred their choice. Deferral did not differ between the 2 months (40%) and the 2 years condition (46%),  $\chi^2(1, N = 300) = 1.10$ ,  $p = .294$ .

These results indicate a first boundary condition to the role of decision importance as a cue for deferral. When people face a choice set containing a dominant alternative—one that is better than the other alternative on all dimensions—importance does not significantly affect deferral. Decision importance is used as a cue for deferral, but only when the decision-maker is ambiguous about how much time and effort is needed to come to a good decision.

## 9 General discussion

People prefer to defer important decisions more than unimportant decisions. This finding seems robust across domains (i.e., pension plans, laptops, career courses, and apartments) and across manipulations of importance (i.e., impact on retirement income, reversibility of laptop purchase, impact on career, and renting period of apartment). Deferral of important decisions was independent of choice set composition and of whether deferral provides more flexibility, bears a risk, is without material benefits, or is financially costly. We also found that people would defer important decisions more in situations where there is a single alternative available or where there are two conflicting alternatives. A final experiment showed that decision importance did not increase deferral when there was a clearly dominant option.

Taken together, these results point to the idea that people use decision importance as a cue for deferral. People infer the time and effort that should be invested in a decision from the perceived importance of the decision, and this seems to cause them to defer important decisions. We would like to stress that deferral of decisions on the basis of importance, may be one of many reasons that could cause deferral. In other cases, people may defer important decisions because they involve complex choice sets with conflicting alternatives (Dhar, 1997; Tversky & Shafir, 1992) or because deferral provides more flexibility and leads to more information or better alternatives (Ratchford, 1982; Shin & Ariely, 2004). Interestingly, however, these reasons cannot explain the current findings. We thus conclude that sometimes people appear to defer decisions *simply because they are important*.

This interpretation of importance as a cue fits with work on the use of heuristics in decision-making. When using heuristics, people simplify complex situations by assessing

only part of the information and responding in a more or less fixed way (Gigerenzer & Gaissmaier, 2011; Tversky & Kahneman, 1974). Cialdini (2007) refers to these patterns of behavior as “click, whirr”; a specific feature of the situation (“click”) sets in motion a specific behavioral response (“whirr”), even when once in a while this response may not be optimal.

The notion that people use decision importance as a cue for deferral is also in line with previous research on decision difficulty. Beattie and Barlas (2001) found that perceptions of decision difficulty were closely related to the combined importance of the attributes under consideration. More recent studies by Sela and Berger (2012) have shown that people infer a sense of importance from perceptions of decision difficulty. Based on this inference, people were willing to invest even more time and effort into making a decision that felt difficult. Decisions that were objectively equally important thus became subjectively more important through the perception of difficulty. In our studies, we found a similar effect in the reverse direction: decisions that are objectively equally difficult can become subjectively more or less difficult through the perception of importance. Together, these studies and our current findings demonstrate a close link between perceptions of decision importance and perceptions of decision difficulty. People assume difficult decisions to be important and important decisions to be difficult.

We think that our findings also have implications for how to decrease the rate of deferral. People are less likely to defer when decisions are perceived as less important. One way to do this is by making the decision reversible. Thaler and Benartzi’s (2004) Save More Tomorrow™ saving plan emphasized that all saving decisions could be changed at any time, which led to higher participation rates and more saving (together with other aspects of the plan’s design). Retailers employ a similar strategy: by providing a full money back guarantee, they lower the consumer’s perception of the consequences of making a mistake (Davis, Gerstner & Hagerty, 1995), which in turn increases the intention to buy and the willingness to pay (e.g., Suwelack, Hogueve & Hoyer, 2011). For decisions that are reversible, such as choosing whether to be an organ donor or not, the reversibility could be emphasized with the aim of encouraging people to make a decision earlier. Based on the current findings, we expect such an emphasis on reversibility to be more effective than an emphasis on the importance of the decision.

We want to stress that the use of importance as a cue for deferral is not typically maladaptive or irrational. It makes sense to take more time and invest more effort in important decisions than in unimportant decisions. Moreover, selecting a decision strategy based on a single cue is simple and fast—it does not require extensive evaluation of the decision problem and its dynamics—which is another reason why it may be effective. However, using importance as a cue for deferral may occasionally cause people to defer important



decisions where there is no real benefit in doing so and it would thus be better to choose right away.

This brings us back to the deferral of retirement saving decisions, where strategies to motivate people to enroll in retirement plans often entail emphasizing the importance of saving for retirement (through financial benefits, financial education, and marketing communication). As we have seen, the intuitions of lay people are in line with those of the retirement industry; they think that emphasizing importance makes people more likely to enroll in a retirement plan, and if not, that it will certainly do no harm. But the present studies have shown that it can do harm. Making decisions important may backfire by causing more deferral, and thus make people less likely to enroll in a retirement plan.

## References

- Antolín, P., De Serres, A., & De la Maisonnette, C. (2004). *Long-term budgetary implications of tax-favoured retirement saving plans*. OECD Economic Studies No. 39. <http://dx.doi.org/10.1787/18151973>.
- Beattie, J. & Barlas, S. (2001). Predicting perceived differences in tradeoff difficulty. In Weber, E. U., Baron, J., & Loomes, G. (Eds.) *Conflict and Tradeoffs in Decision Making* (pp. 25–64). Cambridge, NY: Cambridge University Press.
- Cialdini, R. (2007). *Influence: The Psychology of Persuasion*. New York, NY: Harper Collins Publishers.
- Davis, S., Gerstner, E., & Hagerty, M. (1995). Money back guarantees in retailing: Matching products to consumer tastes. *Journal of Retailing*, 71, 7–22. [http://dx.doi.org/10.1016/0022-4359\(95\)90010-1](http://dx.doi.org/10.1016/0022-4359(95)90010-1).
- Dhar, R. (1997). Consumer preference for a no-choice option. *Journal of Consumer Research*, 24, 215–231. <http://dx.doi.org/10.1086/209506>.
- Gigerenzer, G., & Gaissmaier, W. (2011). Heuristic decision making. *Annual Review of Psychology*, 62, 451–482. <http://dx.doi.org/10.1146/annurev-psych-120709-145346>.
- Harris, N., & Sutton, R. (1983). Task procrastination in organizations: A framework for research. *Human Relations*, 36, 987–996. <http://dx.doi.org/10.1177/001872678303601102>.
- Kleinmuntz, D. N., & Schkade, D. A. (1993). Information displays and decision processes. *Psychological Science*, 4, 221–227. <http://dx.doi.org/10.1111/j.1467-9280.1993.tb00265.x>.
- Munnell, A. H., Golub-Sass, F., & Webb, A. (2011). *How much to save for a secure retirement*. Center for Retirement Research at Boston College Report 11–13.
- O'Donoghue, T., & Rabin, M. (1999). Doing it now or later. *American Economic Review*, 89(1), 103–124. <http://dx.doi.org/10.1257/aer.89.1.103>.
- Paolacci, G., & Chandler, J. (2014). Inside the Turk: Understanding Mechanical Turk as a participant pool. *Current Directions in Psychological Science*, 23, 184–188. <http://dx.doi.org/10.1177/0963721414531598>.
- Payne, J. W., Bettman, J. R., & Luce, M. F. (1996). When time is money: Decision behavior under opportunity-cost time pressure. *Organizational Behavior and Human Decision Processes*, 66, 131–152. <http://dx.doi.org/10.1006/obhd.1996.0044>.
- Ratchford, B. T. (1982). Cost-benefit models for explaining consumer choice and information seeking behavior. *Management Science*, 28, 197–212. <http://dx.doi.org/10.1287/mnsc.28.2.197>.
- Schrift, R. Y., Netzer, O., & Kivetz, R. (2011). Complicating choice. *Journal of Marketing Research*, 48, 308–326. <http://dx.doi.org/10.1509/jmkr.48.2.308>.
- Sela, A. & Berger, J. (2012). Decision quicksand: How trivial choices suck us in. *Journal of Consumer Research*, 39, 360–370. <http://dx.doi.org/10.1086/662997>.
- Shin, J., & Ariely, D. (2004). Keeping doors open: The effect of unavailability on incentives to keep options viable. *Management Science*, 50, 575–586. <http://dx.doi.org/10.1287/mnsc.1030.0148>.
- Suwelack, T., Hogueve, J., & Hoyer, W. D. (2011). Understanding money-back guarantees: Cognitive, affective, and behavioral outcomes. *Journal of Retailing*, 87, 462–478. <http://dx.doi.org/10.1016/j.jretai.2011.09.002>.
- Thaler, R. H. & Benartzi, S. (2004). Save more tomorrow: Using behavioral economics to increase employee saving. *Journal of Political Economy*, 112, 164–187. <http://dx.doi.org/10.1086/380085>.
- Tversky, A. & Kahneman, D. (1974). Judgment under uncertainty: Heuristics and biases. *Science*, 185, 1124–1131. <http://dx.doi.org/10.1126/science.185.4157.1124>.
- Tversky, A. & Shafir, E. (1992). Choice under conflict: the dynamics of deferred decision. *Psychological Science*, 3, 358–61. <http://dx.doi.org/10.1111/j.1467-9280.1992.tb00047.x>.
- U.S. Department of Labor, Employee Benefits Security Administration (2013). *What you should know about your retirement plan*. Retrieved from <http://www.dol.gov/ebsa/publications/wyskapr.html>.
- U.S. Department of the Treasury, Financial Literacy and Education Commission (n.d.). *Save and invest*. Retrieved from <http://www.mymoney.gov/saveinvest/Pages/saveandinvest.aspx>.