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How to Give Away Your Cake and Eat It Too: Relinquishing Control Prompts Reciprocal Generosity

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Many resource allocations confer two rewards, but these rewards typically work in opposition to one another: Reputational rewards come to those who give and material rewards to those who receive. Eight studies reveal that *abdicating* a resource allocation decision—that is, giving away one's right to choose to someone else—may allow these two rewards to work in tandem. We found that people frequently abdicated to others, and abdication often prompted others to reciprocate by giving away the better of two items. This occurred in part because people perceived abdication to be generous; in fact, individuals who abdicated seemed nearly as generous as individuals who gave away the better item to begin with. Paradoxically, abdicating confers both the reputational benefits of giving and (often) the material benefits of getting. This finding has implications for everyday resource sharing behavior and as well as for theories of fairness and reciprocity.

Keywords: decision making, fairness, generosity, prosocial behavior, reciprocity

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Imagine that you and your friend board a plane prior to the departure of a lengthy flight. You both walk down the aisle toward your seats and discover that one is a window seat (the more desirable seat) and one is a middle seat (the less desirable seat). Your friend arrives at the seats before you do, and then—rather than choose which seat to take for herself—turns to you and offers *you* the choice between the two seats. That is, your friend abdicates her claim and lets you choose. Which seat do you choose? Do you take the window seat for yourself and leave the middle seat for your friend, or take the middle seat for yourself and leave the window seat for your friend?

When people allocate resources, they regularly have to manage tradeoffs between conveying generosity but giving away the better resource (i.e., giving up the window seat) and conveying selfishness but keeping the better resource (i.e., taking the window seat). Previous research has provided extensive insight about how people allocate resources between multiple recipients, as well as the consequences of these allocations for resource allocators (Adams, 1965; Colquitt, Conlon, Wesson, Porter, & Ng, 2001; Homans, 1961; Messick, 1995; Hook & Cook, 1979; Thibaut & Walker, 1975). Here we take a different approach to understanding these tradeoffs by attempting to identify a strategy that may circumvent these tradeoffs to begin with. Specifically, we propose that abdicating the resource allocation decision to another individual may both convey one's own generosity *and* prompt the other individual to give the better resource to the abdicator.

To examine this possibility, we explore how people behave when a resource allocation decision has been abdicated to them. We focus on two components of the abdication process: how you (the allocator) distribute resources between yourself and another person after being granted this choice by the other individual (the abdicator), and how you evaluate the abdicator after she relinquishes control. We expect that, when faced with a situation like the airline seat example we just described, allocators who are abdicated to will be more likely to make the generous choice (i.e., letting their friend have the window seat) than the selfish one (i.e., taking the window seat for themselves). In fact, we predict that allocators will be even *more* generous after being abdicated to than they would have been had they been responsible for choosing between the two resources from the beginning. We argue that these choices are driven by an allocator's evaluation of the other individual's decision to abdicate. Specifically, we predict that people will interpret a friend's choice to abdicate the airplane seating decision as a relatively generous act, which leads them to reciprocate that perceived generosity by selflessly opting to give their friend the better option. Below we specify the scope of our predictions and review relevant literature on people's choices to be generous and selfish.

How People Respond to Generous and Selfish Actions

When one individual abdicates to another, the structure of the *material* exchange is unaffected: The same resources remain available to be distributed, and when these resources are allocated, the same two individuals receive them. Nevertheless, the structure of the *interpersonal* exchange is altered because choosing not to choose is, in itself, a decision that could seem either selfish or generous. Therefore, to predict how allocators will distribute re-

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sources after another individual abdicates, we first review how people respond to cases in which people actively choose to be generous or selfish.

A large body of work demonstrates that people form positive evaluations of those who are generous and form negative evaluations of those who are selfish, and that these evaluations in turn shape people's behavior toward others (Aron, Aron, Tudor, & Nelson, 1991; Clark, 1983; Clark & Mills, 1979; Simpson & Willer, 2008). Much of this work converges on the notion that people use *reciprocal* strategies in interactions with friends (Kenny, Mohr, & Levesque, 2001; Nelson, 2002) and strangers (Axelrod, 1984; Binmore, 2006; Delton, Krasnow, Cosmides, & Tooby, 2011; Falk & Fischbacher, 2006; Gouldner, 1960; Gray, Ward, & Norton, 2014; Gurven & Winking, 2008; Panchanathan & Boyd, 2004; Shaw, Descioli, & Olson, 2012; Trivers, 1971).

People rely on reciprocal strategies in part to perpetuate generous behavior in the future (Cialdini, 2001; Gouldner, 1960), whether through direct reciprocity (e.g., "You scratch my back and I'll scratch yours") or indirect reciprocity (e.g., "You scratch her back and I'll scratch yours"; Goldstein, Griskevicius, & Cialdini, 2012; Nowak & Sigmund, 1998; Panchanathan & Boyd, 2004; Wedekind, 1998). Simply put, people tend to reward those who behave generously (positive reciprocity) and punish those who behave selfishly (negative reciprocity; e.g., Fehr, Fischbacher, & Gächter, 2002). Individuals routinely track the needs of both friends and acquaintances and strive to reward generous behaviors through positive reciprocity, particularly in relationships that are communal (Clark, Mills, & Powell, 1986), and those who have a reputation for generosity are, in fact, rewarded with subsequent reciprocity more so than those who have a reputation for selfishness (Barclay & Willer, 2007; Baumeister, 1982; Berg, Dickhaut, & McCabe, 1995; Cialdini, 2001; De Cremer & Sedikides, 2008; Johnson & Mislin, 2011; Kahn & Young, 1973; Latane, 1970; Milinski, Semmann, & Krambeck, 2002). People also punish selfish behaviors through negative reciprocity (Fehr & Gächter, 2002; Kurzban, DeScioli, & O'Brien, 2007; Xiao & Houser, 2005; Yamagishi, 1986).

Of course, reaping the rewards of positive reciprocity requires that other people are not only aware of one's generous actions, but also that others construe those actions as sincere. If people think that one's prosocial action is strategic (Barclay & Willer, 2007) or is based on ulterior motives (Newman & Cain, 2014), then they will not view those actions as generous and therefore will not be inclined to reciprocate with generosity in the future (Müller-Trede & Rottenstreich, 2017). Evaluators are actually quite savvy at discerning whether a prosocial action was based on generous motivations or something else (Barclay & Willer, 2007; Bénabou & Tirole, 2006; Berman, Levine, Barasch, & Small, 2015).

Taken together, these findings suggest that after one individual abdicates a resource allocation decision, the behavior of the allocator is likely to depend critically on whether they see abdication as a generous act—one that might prompt reciprocally generous behavior in return—or as a selfish act—one that might prompt reciprocally selfish behavior in return. Therefore, in our experiments we will explore whether people repay abdication with generosity or selfishness as well as whether these decisions mirror, and are driven by, people's evaluations of the initial act of abdication.

When Abdicating Might (and Might Not) Seem Generous

We propose that there are many contexts in which abdication will be seen as generous or helpful and thus might prompt reciprocity. However, we also acknowledge that there are some contexts in which abdication may not be seen as generous. Importantly, however, we believe that these contexts are less relevant to our interest in understanding whether abdication increases or decreases rates of generosity. We review two such contexts below and then explain why these cases, although interesting in their own right, are less relevant for the current paper.

First, abdicating might seem selfish rather than generous when the value of the choices is ambiguous. Suppose that you and your friend purchase scratch-off lottery tickets and are struggling to decide who should take which ticket—and then your friend turns to you and says she is "fine" with whatever allocation you deem best. Rather than seeing your friend as generous, you might believe that she has left you with the burden of choosing as well as the possibility of regretting your choice should you choose poorly. As a result, when the resources themselves are ambiguous in value, relinquishing control may be less likely to cause the abdicator to appear generous (Steffel, Williams, & Perrmann-Graham, 2016).

Likewise, people sometimes feel overwhelmed when choosing among numerous options (Iyengar & Lepper, 2000), especially when choice sets contain tradeoffs and involve attributes that are difficult to evaluate objectively (Greifeneder, Scheibehenne, & Kleber, 2010). Therefore, in cases where a large part of the effort of the choice is trying to determine the best possible option, abdication should straightforwardly be seen as frustrating and uncooperative—just like any other form of refusal to help with a difficult task (e.g., Williamson, Clark, Pegalis, & Behan, 1996). This frustration is most likely to occur in contexts where tradeoffs obscure which option is best, because navigating these tradeoffs makes choosing more onerous or effortful.

In both of the examples above, it is not obvious which resource is superior to the others, and as a result, it is unclear that allocators possess one selfish option and one generous option. Instead, allocators could potentially infer that the abdicator feels indifferent between the items, that the abdicator feels indecisive, that the abdicator does not enjoy choosing or lacks enough confidence to choose, that the two individuals hold complementary preferences, or that the abdicator could not discern which item was superior. Although cases like these may also arise frequently, these situations do not clearly delineate one selfish and one generous option for allocators.

In the current paper, our goal is to study contexts in which one individual has options to behave selfishly or generously but instead relinquishes control to the allocator, who then has opportunities to respond either selfishly or generously. To do this, we developed situations in which the two resources clearly differ in value, and thus both individuals *know* which allocation is selfish and which one is generous. Then we test whether abdication increases or decreases rates of generosity. We believe that examining this context enriches our investigation by clarifying that abdication might increase rates of generosity in many resource allocation contexts that have been examined in previous research, where some allocations are relatively selfish and others relatively generous.

Does Abdication Prompt Selfishness or Generosity?

People routinely reward others whom they perceive as generous and punish those whom they perceive to be selfish. However, research has not yet established whether abdication appears generous or selfish when the two resources clearly differ in value, or whether allocators typically respond to abdicators by giving away the better resource or keeping the better resource for themselves. Below we discuss different reasons why people may respond to such abdication either with generosity or with selfishness.

Allocators might respond to abdication with selfishness because they interpret abdication to be strategically motivated. For example, allocators may infer that the abdicator is attempting to ingratiate herself with the allocator by appearing generous, which can lead evaluators to discount their apparent generosity (e.g., Barclay & Willer, 2007). Relatedly, allocators might understand that abdicators would prefer to get the better item while avoiding the overt appearance of selfishness, and so abdication might be interpreted as an act with selfish intent. Sometimes people make overly harsh attributions for others' behavior, especially when others might have something to gain from an interaction (Main, Dahl, & Darke, 2007). Consequently, it is possible that, regardless of the true motives of the abdicator, this act may be seen as a selfish attempt to prompt the allocator to give the abdicator the better resource. If people construe abdication as strategic or manipulative, then they should negatively evaluate the act of abdication and feel little obligation to give up the better item.

Alternatively, allocators might respond to abdication by giving away the better item. Abdication might prompt positive reciprocity in part because allocators construe abdicators' behavior as generous. Abdication may be seen as generous for two related reasons. First, people place intrinsic value on choice and are even willing to forego monetary rewards to retain control over decision tasks (Bobadilla-Suarez, Sunstein, & Sharot, 2017; Leotti & Delgado, 2011; Owens, Grossman, & Fackler, 2014). Because allocators are likely to interpret abdication as a voluntary act—the abdicator willingly gave up the ability to choose even though she could have allocated the resources herself— allocators may see abdication as generous. Second, relinquishing control requires that the abdicator overcome her own self-interest. If the allocator primarily focuses on the abdicator's own preferences, then she will presume that the abdicator will be driven to be selfish and take the better item for herself. There are certainly reasons to assume that the abdicator would be inclined to privilege her own welfare in this kind of situation (e.g., Engel, 2011). As a result, allocators may interpret the act of abdication as generous because abdicators were not as selfish as they could have been.

In the situations we examine here, we predict that allocators will likely see abdication as generous and thus respond to abdication with reciprocal generosity. We base this prediction on the observation that people's evaluations of other individuals' behavior are often tightly linked with the perceived motives of those individuals (Miller & Ratner, 1996; Reeder, Henderson, & Sullivan, 1982), and at least in circumstances that involve zero-sum-resource distributions (Tu, Shaw, & Fishbach, 2016), people often expect that others' default will be to take benefits for the self (Kramer, 1994; Miller & Ratner, 1998). People could experience both psychological (Bobadilla-Suarez et al., 2017) and material (Tu et al., 2016) benefits by choosing, and so allocators are likely to expect that others would prioritize their own welfare by choosing rather than abdicating. Furthermore, people tend to assume that although they themselves feel motivated by intrinsic incentives, *others* feel motivated by extrinsic incentives (Heath, 1999). Consequently, people may (erroneously) predict that others would prioritize material gain by taking the better item for themselves, even if others actually tend to behave prosocially by either giving away the better item or abdicating. Indeed, although people do expect that another person will make sacrifices for them when the benefit to them is high and the cost to the other person is low, they do not necessarily expect that another person will place one's own welfare above theirs (Delton & Robertson, 2016; Trivers, 1971). Likewise, in dictator games—where the "dictator" receives a lump sum of money and then chooses how much of that money to transfer to the recipient—the dictator can appear reasonably generous by giving $0 to the recipient, as long as the dictator also possessed the even more selfish option to take up to $5 from the recipient (List, 2007). In the context of abdication, allocators may interpret abdication as generous because the abdicator did not behave as selfishly as allocators themselves had expected, and these perceptions of generosity might cause allocators to give the better item to the abdicator.

Of course, as we noted above, allocators could alternatively interpret abdication as a strategic gambit and so keep the better item for themselves; however, we expected that allocators would be less likely to make this inference than an inference of generosity. People sometimes exhibit outwardly prosocial behaviors for privately selfish reasons (Bénabou & Tirole, 2006), but individuals tend to be more sensitive to ulterior motivations as actors or observers than as targets (e.g., Bohns, 2016; Risen & Gilovich, 2007; Vonk, 2002). Because people are targets when another individual abdicates to them, we expected that allocators would not construe abdication as strategic even if abdicators did relinquish control with the goal of getting the better item.

If our predictions hold, then we would observe that abdicators appear generous without also paying the cost of generosity. That is, abdicators would not only appear generous for ceding control, but they would also reap the benefits of reciprocity, thereby nullifying the cost that they would normally pay to seem generous. As a result, abdicating might provide dual benefits for abdicators—both the reputational rewards of generosity and the material rewards of reciprocity—and this combination of benefits could not be achieved by simply choosing generously or selfishly.

Although we hypothesize that people will interpret abdication as generous and that this will prompt them to be generous in kind, we also acknowledge that complementary mechanisms might prompt allocators to give away the better resource. For example, after one individual abdicates, allocators receive not only control over the resources but also *power*, and at times, people may be especially likely to behave kindly after being granted power (Chen, Lee-Chai, & Bargh, 2001). Relatedly, at times allocators might sometimes reciprocate because they assume the abdicator wants the better item and so feel socially pressured to give the better item away (Bohns, 2016). These mechanisms also predict that abdication should lead to reciprocity, and we propose designs to test between competing mechanisms in the General Discussion. Nevertheless, we speculate that generosity plays an especially important role because people commonly interpret, and respond to, others' ac-

tions in terms of the perceived motives of those individuals (Miller & Ratner, 1996; Reeder et al., 1982).

Overview of Studies

In eight studies, we explore how allocators respond to another individual's abdication in a resource allocation task. In each study, participants must distribute one higher-value resource and one lower-value resource between themselves and another person. One person initially controls the resources and then either distributes the resources between himself and another person or abdicates to that person. If the first person abdicates, then the second person subsequently distributes the resources. Thus, if either individual chooses one of the resources for him or herself (e.g., the window seat), then the other individual receives the remaining resource (e.g., the middle seat). We were primarily interested in how allocators actually respond after another individual abdicates, and whether their response can be explained by the perceived generosity of the act of abdication itself.

To investigate these questions, we first test how often people abdicate their resource sharing decisions to others, and find consistent evidence that people frequently abdicate these decisions in both scenario (Study 1a) and field (Study 1b) studies. We then examine how people respond after abdication takes place, and we find that allocators are more generous if they are first abdicated to than if they control the resource allocation from the beginning (Study 2). Next, we show support for our proposed process whereby people construe abdication as generous (Studies 3a and 3b); in fact, people report that abdicators are far more generous than those who take the high-value item for themselves, and nearly as generous as those who simply give the high-value item away. We then demonstrate that this perception of generosity accounts for allocators' increased generosity following abdication (Study 4). Finally, we show that abdication prompts reciprocity among both friends and strangers (Study 5) and that strangers reciprocate even when this means giving away resources with monetary value (Study 6).

Study 1a: People Abdicate Frequently

Before exploring in detail how allocators respond to abdication, we first conducted an initial study to evaluate whether or not people actually opt to abdicate in situations with one higher-value and one lower-value resource. If abdication is an exceedingly rare choice in such situations, it would be less obvious that it is important to understand how others interpret and respond to such acts of abdication. To assess people's tendency to choose or abdicate, we developed four hypothetical scenarios in which two friends must allocate resources and are given the option to choose or abdicate. We build several characteristics into each of the scenarios we test; namely, that (a) both parties are equally deserving, (b) the resources themselves cannot easily be divided, and (c) the resources themselves are relatively low in value. In the General Discussion, we revisit the importance of these factors and consider the implications that changing them would entail.

Method

Participants. We recruited 300 participants from Amazon Mechanical Turk (M_{age} = 38.34; SD_{age} = 13.28; 60% female; 74% Caucasian) to complete a research study in exchange for $0.25. An additional eight participants were excluded because they failed one or more of two attention check items (see online supplemental material S1 for analyses including all participants).

Materials. We created four scenarios in which two friends must distribute two resources of unequal value: granola bars, raffle tickets, gift cards, and mini golf balls (see the Appendix for more detail). For example, the "granola bars" scenario read:

> Imagine that you're walking down the street with your friend. A researcher asks you and your friend to fill out a survey in exchange for two granola bars (one for you and one for your friend). However, there are only two granola bars left and they are each slightly different: one is a premium-brand granola bar while the other is a store-brand granola bar, although both are the same flavor.
>
> Both you and your friend see both granola bars as well as their brands. Because you happen to be standing closer, the researcher hands both of the granola bars to you, so now you need to decide what to do next.
>
> You could make one of two decisions:
>
> 1. Choose who gets which granola bar yourself.
> 2. Ask your friend to choose who gets which granola bar.
>
> If you were in this situation, which of these two decisions would you make?

For all scenarios and in all studies, the choices were presented in counterbalanced order.

Procedure. After providing informed consent, participants were told that they would read a short story about a social situation and that they would be asked to imagine that they were one of the characters in the story.

Participants were randomly assigned to one of the four scenarios. After reading the scenario, participants selected whether to allocate the resources or abdicate to the other individual. Participants who allocated were then prompted to report which item they would select for themselves.

Finally, participants were asked to describe in writing why they had either allocated the resources or abdicated at the beginning of the story. Then participants responded to attention check questions, provided demographic information, and were thanked and debriefed.

Results

Rates of abdication did not significantly differ across the four scenarios, $F(3, 296) = 1.86$, $p = .136$, $\eta^2 = .02$ (see Table 1). Therefore, we collapsed across scenarios for the following analyses.

First, we measured the percentage of participants who abdicated the decision. Across scenarios, 69% of participants abdicated and 31% allocated, suggesting that people appear to be willing to abdicate, at least in the scenarios we tested. We did not make a priori predictions about whether a greater proportion of participants would allocate the resources or abdicate. However, exploratory analyses indicated that across scenarios, participants abdicated more often than they allocated, $\chi^2(1, N = 300) = 41.81$, $p < .001$. Among participants who allocated the resources, a greater

Table 1
Rates of Abdication and Allocation Across Studies 1a and 1b

	Study 1a			Study 1b	
Scenario	Gift cards	Golf balls	Raffle tickets	Granola bars	Granola bars
Abdicate	70%	58%	75%	71%	68%
Allocate	30%	42%	25%	29%	32%

proportion were generous (68%) than selfish (32%), $\chi^2(1, N = 94) = 12.30$, $p < .001$.

Furthermore, independent raters coded participants' free responses based on five categories: generosity, responsibility, indecision, strategy, and guilt. Each response was coded from 0 to 2 on each of the categories. When raters disagreed by more than one scale point, they discussed the ratings to resolve the issue. In the final ratings after discussion, the two raters had exact agreement for 84% of responses across the data set.

The most common reason that participants gave for abdicating was generosity (e.g., "I felt that I want to be generous in the decision making," $M = 1.18$, $SD = 0.83$), followed by guilt (e.g., "I don't want to seem greedy and selfish," $M = 0.53$, $SD = 0.75$), responsibility (e.g., "I don't want the responsibility of choosing who gets which ticket," $M = 0.33$, $SD = 0.66$), indecision (e.g., "I am not a good decision maker," $M = 0.14$, $SD = 0.43$), and strategy (e.g., "She will probably let me have the good one anyway," $M = 0.08$, $SD = 0.33$). Mean generosity ratings differed significantly from mean ratings on all other dimensions, ts(205) $>$ 6.93, ps $< .001$, ds > 0.48.

Discussion

When distributing resources between oneself and a friend, people abdicated more often than they allocated. This result suggests that abdication is not an uncommon response in such situations, even though abdication entails the possibility that the other individual will take the better item for him or herself.

People most frequently reported that they abdicated with the goal of being generous toward one's friend, rather than other considerations such as strategy or indecision. We note that these data do not specify *why* abdicators expected their actions to seem generous: they may have expected the allocator to feel licensed to take the better item for him or herself; they may have expected that transferring power over the resources to the other individual would seem generous by itself; or they might have wanted to provide the other individual with the opportunity to signal whether she strongly preferred one item over the other. Regardless of why abdicators construed their own actions as generous, abdicators commonly explained their choices in terms of generosity. Building on these initial results, we next tested whether people abdicate to others in a more naturalistic field setting in which their decisions were actually consequential.

Study 1b: People Abdicate Frequently (in Live Interactions)

In Study 1b, we recruited pairs of individuals in a local park and provided them with two granola bars. As in Study 1a, one individual was granted control over the resources and was prompted to either allocate the resources or abdicate to the other individual. If the person abdicated, the other individual then allocated the granola bars. This new experiment allowed us to measure rates of abdication in a consequential setting (i.e., their choices actually influenced what granola bar they ate) and also allowed us to examine how others respond after the first individual abdicates.

Method

Participants. We recruited 218 visitors from a local park ($M_{age} = 39.82$; $SD_{age} = 15.82$; 60% female; 74% Caucasian) to participate in a taste-testing study. Participants were recruited in pairs. An additional 26 participants were excluded because they failed to follow instructions or were allergic to the granola bars used in the study (see online supplemental material S2 for the full analysis of the data, not excluding any participants).

Procedure. A research assistant approached groups of visitors within the park and asked them to participate in a brief taste-testing study. If two visitors from the same group volunteered, they were recruited to participate.

We decided in advance always to assign the participant standing on the experimenter's left to initially control the granola bars before deciding to either allocate or abdicate. Participants were shown two granola bars, one of which was referred to as the "premium brand" and the other as the "store brand." Participants were told that they would each taste one granola bar but could not share them. One was then told that they could either choose who would get which granola bar (i.e., allocate), or they could ask the other individual to choose how to distribute the granola bars (i.e., abdicate). The order in which the options were presented was counterbalanced. If the first individual abdicated the decision, then the second individual allocated the granola bars. Participants did not taste the granola bars until after the resource allocation had taken place.

Additionally, as a first pass toward understanding the consequences of allocating the resources versus abdicating, we included a number of exploratory measures, including people's happiness, their beliefs about the other person's happiness, their predictions about how the nonallocator would have distributed the granola bars, and how tasty they found the granola bars to be. Because we do not focus on these measures in the remainder of this article, we place the description of these measures and their results in online supplemental material (see S2).

Then both participants individually reported their relationship with one another (*Romantic partners* vs. *Close friends* vs. *Acquaintances* vs. *Strangers* vs. *Family members*). No participants reported that they had been recruited to participate with a stranger.

Finally, participants completed demographic items and were thanked and debriefed.[1]

Results

First we measured the percentage of individuals who allocated the resources versus abdicated. Thirty-two percent of individuals allocated the resources, whereas 68% abdicated. An exploratory analysis comparing rates of abdication and allocation indicated that participants abdicated more often than they allocated, $\chi^2(1, N = 109) = 13.95, p < .001$. These results indicate that even when people distribute actual resources in face-to-face interactions, they abdicate more often than they choose between the resources, at least in the current context.

Among individuals who allocated, 60% were generous and 40% were selfish. These rates did not differ from chance, $\chi^2(1, N = 35) = 1.40, p = .237$. In pairs for which the first individual abdicated, a greater proportion of allocators were subsequently generous (69%) than selfish (31%), $\chi^2(1, N = 74) = 10.59, p = .001$.

Discussion

Study 1b provides additional evidence that people are willing to abdicate, even when doing so influenced their real outcomes. About two thirds of participants abdicated in this resource-sharing context, similar to rates of abdication in the scenarios from Study 1a. We further found that when people abdicated, allocators subsequently gave away the premium-brand item more often than the store-brand item, consistent with the possibility that decision makers see abdication as generous and reciprocate by giving away the better resource. However, Study 1b was not designed to test the reciprocity hypothesis directly because pairs of participants self-selected into the "allocate" and "abdicate" cells, and it is unclear which granola bar the abdicators would have kept for themselves had these individuals instead allocated. Further, the value of the granola bars themselves was ambiguous, and when participants rated the granola bars prior to the resource allocation, only 55% of participants gave higher desirability ratings to the premium-brand granola bar than to the store-brand granola bar (see online supplemental material S2 for more details). Beginning in Study 2, we used hypothetical scenarios with less ambiguous resources and tested directly whether abdication increases rates of generosity. We test the hypothesis with actual, monetary resources in Study 6.

Note that Studies 1a and 1b suggest that people *prefer* to abdicate but not necessarily that they do so when they are not explicitly presented with this option. If people very rarely abdicate in their daily lives, then it might be less important to understand how others construe and respond to such abdication. We ran a supplemental study to test whether people also abdicate naturally. Specifically, we recruited 50 participants on Amazon Mechanical Turk and asked them whether they could remember a time when they needed to allocate material resources between themselves and another person but then, rather than choose between the resources themselves, relinquished control over the decision by asking the other person to choose. Then, for participants who remembered abdicating, we asked them to estimate how recently they had abdicated and how many times they had done so over the past year. We predicted that the majority of participants would recall at least once instance in which they abdicated (preregistered at https://aspredicted.org/zq4zq.pdf; see online supplemental material S3 for complete method and results). In fact, the majority of participants (92%) were able to recall at least one instance in which they abdicated, $\chi^2(1, N = 50) = 35.28, p < .001$. Among participants who remembered abdicating, 87% reported doing so within the last month. Further, people who remembered abdicating reported doing so multiple times over the past year ($M = 31.50$, $SD = 58.27$). Although people might often delegate decisions made on behalf of others (Steffel et al., 2016), our data suggest that people commonly relinquish control even when abdicators themselves stand to gain resources from the allocation.

Study 2: Abdication Prompts Reciprocity

Study 2 explores how abdication impacts rates of generosity and selfishness. There seem to be two plausible responses to abdication. First, abdication may prompt the allocator to keep the better resource for oneself. After the abdicator cedes control, allocators may infer that the abdicator skirted responsibility for a difficult choice, that the abdicator merely hopes to receive the better item regardless, or that the abdicator lacks any preference between the items to begin with. Each of these possibilities might cause allocators to keep the better item. By contrast, abdication might prompt positive reciprocity by causing the allocator to give away the better item. Prior to the allocation, allocators might assume that the other individual would be selfish, and consequently, when this individual instead abdicates, allocators may encode this behavior as generous relative to their expectations. Similarly, allocators might interpret the action as generous because the abdicator transfers agency to the allocator. If allocators interpret abdication to be generous, then they may give away the better item.

Positive reciprocity predicts that allocators should give away the better item more often than the worse item, whereas negative reciprocity predicts the opposite. To test the direction of reciprocity, however, notice that allocator behavior cannot be benchmarked against equal chances of being selfish or generous. This "neutral" comparison (inadequately) assumes that allocators give away the two items equally often at baseline, and that allocators reciprocate when they depart from chance-level behavior. Previous research contradicts this premise, as people commonly give better resources to others than to themselves at baseline (Choshen-Hillel, Shaw, & Caruso, 2015; Choshen-Hillel & Yaniv, 2011, 2012)—and indeed, in Study 1a, participants who allocated were generous more often than they were selfish. Thus, an adequate test of the reciprocity hypothesis should benchmark allocator choices not against chance-level behavior but rather against baseline rates of generosity that would ensue in the absence of abdication.

Therefore, in Study 2 we assigned allocators to one of two conditions. In the *baseline* condition, allocators distributed resources without first experiencing abdication. In the *abdication* condition, allocators distributed resources only after another individual abdicated to them. Positive reciprocity predicts that allocators should give away the better resource more often in the abdi-

[1] Three percent of participants reported that they were acquaintances with the other individual, 29% reported that they were close friends, 23% reported that they were family members, and 45% reported that they were romantic partners.

cation condition than in the baseline condition; by contrast, negative reciprocity predicts that allocators should give away the better resource less often in the abdication condition than in the baseline condition.

We predicted that allocators would tend to engage in positive reciprocity. As reviewed earlier, people commonly make inferences about others' motives and then use these inferences to generate expectations about others' future behavior (Miller & Ratner, 1996; Reeder et al., 1982). Most often, people assume that others will behave selfishly (Kramer, 1994; Miller & Ratner, 1998), and allocators may interpret abdication as generous because abdicators acted less selfishly than allocators assumed. Consequently, allocators may frequently give the better item to abdicators, and they may do so more often following abdication than at baseline.

Method

Participants. We recruited 310 participants from Amazon Mechanical Turk (M_{age} = 32.95; SD_{age} = 10.72; 44% female; 77% Caucasian) to complete a research study in exchange for $0.25. Thirteen additional participants were excluded because they failed one or more of two attention check items (see online supplemental material S4 for analyses including all participants).

Procedure. Participants were told that they would read a short story about a social situation and that they would be asked to imagine that they were one of the characters in the story.

Participants were randomly assigned to either the baseline or abdication condition. All participants first read the gift cards scenario from Study 1a:

> Imagine that you and your friend book plane tickets to fly across the country. The flight is delayed overnight, and as an apology the airline promises to give gift cards to all passengers. You and your friend approach the flight attendant to claim your gift cards. The flight attendant has only two gift cards left on hand, and they are each slightly different: one has high value whereas the other has medium value, although both can be used at the same stores.
>
> Both you and your friend see both gift cards as well as their value. [Baseline: Because you happen to be standing closer, the attendant gives both gift cards to you. Now you need to decide what to do next.] [Abdication: Because your friend happens to be standing closer, the attendant gives both gift cards to your friend.]
>
> [Abdication: Suppose that your friend asks you to choose who gets which gift card. Now you need to decide what to do next.]
>
> You could make one of two decisions:
>
> 1. Take the high-value gift card for yourself and give the medium-value gift card to your friend.
>
> 2. Take the medium-value gift card for yourself and give the high-value gift card to your friend.

All participants selected one of the two gift cards. Participants then responded to two attention check questions. Finally, participants responded to demographic questions and were debriefed.

Results

Critically, a greater proportion of allocators were generous in the abdication condition (90%) than in the baseline condition (59%), $Z = -6.20$, $p < .001$, 95% $CI_{difference}$ [−41%, −21%], consistent with our predictions (see Figure 1). In line with previous research (e.g., Choshen-Hillel et al., 2015), participants in both groups were more likely to be generous than selfish: abdication, $\chi^2(1, N = 153) = 95.69$, $p < .001$; baseline, $\chi^2(1, N = 157) = 4.64$, $p = .031$.

Discussion

Study 2 found that allocators were more likely to be generous following abdication than at baseline, consistent with our prediction that allocators see abdication as generous and respond with a reciprocal act of generosity. In contrast, this result is inconsistent with the account that relinquishing control primarily conveys that the abdicator is indifferent between the items or that the abdicator aims selfishly to get back the better item. Although the current results do not rule out that some allocators might see abdicators as indifferent or strategic, it does suggest that most allocators are more likely to focus on other interpretations of abdication, such as the abdicator's generosity, while choosing.

Admittedly, we are inferring allocators' likely interpretations of abdication from their behavior; in Study 2 we did not ask allocators to report whether they saw abdication as selfish or generous. We examine these perceptions of generosity directly in Studies 3a and 3b.

Study 3a: Abdication Is Perceived as Generous

Although Study 2 clearly demonstrates that allocators respond to abdication with increased generosity, it is unclear whether allocators also perceive abdicators to be generous. That is, we provided evidence that abdication often confers material rewards through positive reciprocity but we did not test whether abdication also confers reputational rewards through perceptions of generosity. We argued that these rewards are linked—that is, that abdication prompts allocators to give away the better item *because*

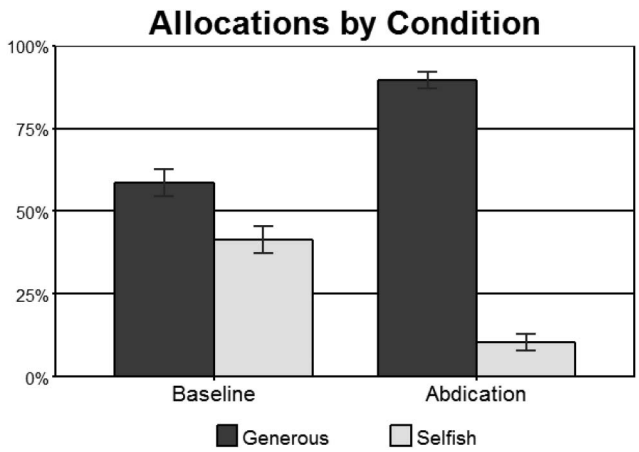

Figure 1. Rates of generosity and selfishness across conditions. Error bars ±1 *SE*.

abdication causes the abdicator to appear generous—but we have presented no evidence for the latter claim. As we reviewed previously, people are more likely to be generous toward those who have been generous to them previously than they are at baseline (Ben-Ner, Putterman, Kong, & Magan, 2004). Therefore, it seems plausible that if allocators are more generous in response to abdication, then it is likely that they construe abdication as generous.

However, there is an alternative possibility. Perhaps participants were more generous after abdication not because they considered abdication to be generous, but because they felt socially pressured to do so. After the first person abdicated, participants might have assumed that the abdicator *wanted* the better item but preferred being *given* the better item over taking that item directly. As a result, participants might have experienced social pressure to give away the better item because they interpreted the abdicator's motive to be fundamentally selfish. Thus, the social pressure account predicts that allocators might see abdicators as neutral, or perhaps even selfish, despite that abdication also increases rates of generosity.

To evaluate these two accounts, in Study 3a we measured people's perceptions of individuals who either allocate resources or abdicate the decision. Specifically, participants imagined that their friend gave them the better resource, gave them the worse resource, or abdicated the decision to them. Then participants rated how selfish or generous their friend seemed. We predicted, of course, that participants would rate their friend to be generous after receiving the better item or to be selfish after receiving the worse item. But critically, we also predicted that friends who chose *not* to allocate—that is, those who abdicated—would be seen as generous.

Method

Participants. We recruited 300 participants from Amazon Mechanical Turk (M_{age} = 35.11; SD_{age} = 10.98; 48% female; 74% Caucasian) to complete a research study in exchange for $0.25. An additional three participants were excluded because they failed the attention check (see online supplemental material S5 for analyses including all participants).

Procedure. After providing informed consent, participants were told that they would read a short story about a social situation and that they would be asked to imagine that they were one of the characters in the story. All participants first read the golf balls scenario from Study 1a, presented here from the standpoint of the friend who does not initially possess the golf balls:

> Imagine that you and your friend decide to play mini golf. The mini golf course provides free mini golf balls, so you and your friend approach the attendant to pick up the mini golf balls. However, there are only two mini golf balls remaining and they are each slightly different: one is in very good condition whereas the other is in fair condition.
>
> Both you and your friend see both mini golf balls as well as their conditions. Because your friend happens to be closer, the attendant hands both of the balls to your friend, so now your friend needs to decide what to do next.
>
> Your friend could make one of two decisions:
>
> 1. Choose who gets which mini golf ball him/herself.
> 2. Ask you to choose who gets which mini golf ball.

Participants were then randomly assigned to one of three conditions, in which the other individual chooses to be selfish, chooses to be generous, or abdicates. Then participants evaluated this individual's behavior on a scale ranging from 1 (*very selfish*) to 7 (*very generous*). Participants in the abdication condition were then prompted to choose between the two golf balls. Finally, participants answered attention check questions, completed demographic items, and were thanked and debriefed.

Results

Evaluations varied by condition, $F(2, 297) = 227.16$, $p < .001$, $\eta_p^2 = .61$. Planned contrasts revealed that people were perceived as more generous when they chose generously ($M = 6.22$, $SD = 0.94$) than when they chose selfishly ($M = 3.44$, $SD = 0.92$), $t(297) = 19.21$, $p < .001$, 95% $CI_{difference}$ [2.50, 3.07], $d = 2.74$, and as more generous than when they abdicated ($M = 5.98$, $SD = 1.16$) than when they chose selfishly ($M = 3.44$, $SD = 0.92$), $t(297) = 17.71$, $p < .001$, 95% $CI_{difference}$ [2.26, 2.82], $d = 2.50$.

Critically, when the first individual abdicated, evaluations significantly exceeded the scale midpoint, $t(102) = 17.28$, $p < .001$, 95% CI [5.75, 6.21], $d = 1.70$, indicating that abdication was seen as more generous than selfish. In fact, the first individual was seen as only marginally more generous after choosing generously than after abdicating, $t(297) = -1.69$, $p = .092$, 95% $CI_{difference}$ [−0.52, 0.04], $d = 0.24$ (see Figure 2). It is noteworthy that the difference between these two evaluations was so small despite that one choice is unequivocally generous.

Finally, we analyzed the choices of participants in the abdication condition. After the first individual abdicated the decision, a greater proportion of participants were generous (93%) than selfish (7%), $\chi^2(1, N = 103) = 76.90$, $p < .001$.

Discussion

Participants viewed abdication as more generous than selfish. Indeed, in this particular experiment participants viewed abdication and choosing to be generous as fairly similar; we only ob-

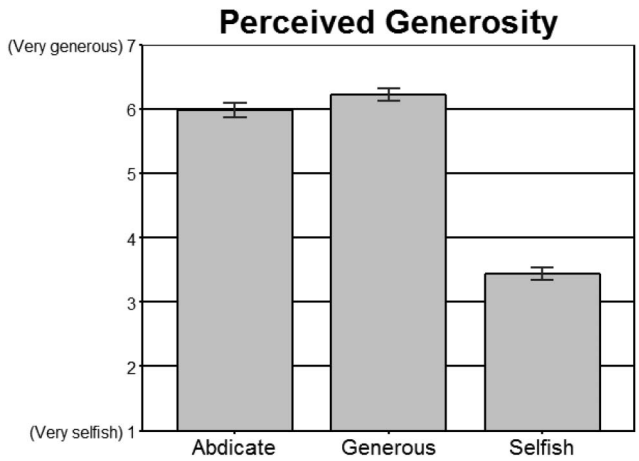

Figure 2. Perceived generosity across types of decision. Error bars ±1 *SE*.

served a marginally significant difference between these two conditions. Of course, in many situations we expect that being generous will be seen as much more generous than abdication. Nevertheless, the results from Study 3a clearly show that people view abdication as generous rather than neutral or selfish.

These results support the reciprocity interpretation for the results of Study 2: When abdicators relinquish control, allocators subsequently interpret abdication to be generous, and this perception causes allocators to reciprocate by giving the better item back to abdicators. An alternative interpretation for the results in Study 2—namely, that allocators see abdication as selfish but give away the better resource because they experience social pressure to do something nice in return—is inconsistent with this finding.

Study 3b: Abdication Is Perceived as Generous (by Observers)

Nevertheless, another alternative is that causality runs in the opposite direction: After the abdicator relinquishes control, allocators might initially decide to choose generously, and because they intend to choose generously, allocators might then justify this choice by reinterpreting abdication itself to be generous. This alternative could account for our existing data—that abdication boosts rates of generosity, and then allocators evaluate abdicators as generous—without positing that perceptions of generosity precede the intent to reciprocate or play any causal role in reciprocity.

According to this alternative, individuals should see abdication as generous only if they gain control over the resources and have opportunities to reciprocate. That is, this alternative predicts that people who witness abdication but do not gain control over the resources—such as third-party observers—should not interpret abdication as generous.

We tested this alternative interpretation in Study 3b. Participants read a modified version of the golf balls scenario from Study 1a and adopted the perspective of a third-party observer. Then participants evaluated both characters in the scenario. Although third-party observers do not gain control over the resources and have no opportunities to reciprocate, we predicted that third-party observers would nonetheless evaluate abdicators as generous.

Method

Participants. One hundred eighty-seven participants were recruited from Amazon Mechanical Turk (M_{age} = 34.05; SD_{age} = 10.26; 48% female; 76% Caucasian) to complete a research study in exchange for $0.25. An additional five participants were excluded because they failed one or more of two attention check items (see online supplemental material S6 for analyses including all participants).

Procedure. After providing informed consent, participants were told that they would read a short story about a social situation and that they would be asked to imagine that they were one of the characters in the story.

Participants were randomly assigned to one of four cells (abdicate-generous, abdicate-selfish, allocate-generous, allocate-selfish). First all participants read a modified version of the golf balls scenario from Study 1a:

> Imagine that two friends, Friend A and Friend B, decide to play mini golf. The mini golf course provides free mini golf balls, so the two friends approach the attendant to pick up the mini golf balls. However, there are only two mini golf balls remaining and they are each slightly different: one is in very good condition whereas the other is in fair condition.
>
> Both Friend A and Friend B see both mini golf balls as well as their conditions. Because Friend A happens to be closer, the attendant hands both of the balls to Friend A, so now Friend A needs to decide what to do next.
>
> Friend A could make one of two decisions:
>
> 1. Choose who gets which mini golf ball him/herself.
> 2. Ask Friend B to choose who gets which mini golf ball.

Participants were told that Friend A either allocated or abdicated, and then were told who was then given which golf ball. To ensure comprehension, participants were then reminded whether Friend A had allocated or abdicated and who received which golf ball.

Participants reported the degree to which they viewed Friend A as selfish or generous (1 = *very selfish*; 7 = *very generous*) and explained why in writing. Then participants reported the degree to which they viewed Friend B as selfish or generous (1 = *very selfish*; 7 = *very generous*) and explained why in writing. Finally, participants answered attention check questions and completed demographic items.

Results

First, we conducted an omnibus ANOVA with condition as the independent variable and evaluations of Friend A (the person who either allocated or abdicated) as the dependent variable. Evaluations varied by condition, $F(3, 183) = 99.53$, $p < .001$, $\eta_p^2 = .62$. Therefore, we conducted planned contrasts.

When the first person abdicated, evaluations of the abdicator's generosity did not differ based on whether the allocator was subsequently generous (M = 5.87, SD = 1.19) or selfish (M = 5.69, SD = 1.22), $t(183) = 0.82$, $p = .412$, 95% $CI_{difference}$ [−0.26, 0.62], $d = 0.17$, so we collapsed across these conditions. Abdicators were perceived to be more generous than selfish by third-party observers (M = 5.78, SD = 1.20), $t(91) = 14.22$, $p < .001$, 95% CI [5.53, 6.03], $d = 1.48$. Furthermore, the individual was seen as only marginally less generous after abdicating (M = 5.78, SD = 1.20) than after giving away the better item (M = 6.14, SD = 0.85), $t(183) = 1.81$, $p = .071$, 95% $CI_{difference}$ [−0.03, 0.74], $d = 0.33$, consistent with allocators' evaluations in Study 3a. The person was rated as more generous after abdicating (M = 5.78, SD = 1.20) than after keeping the better item for oneself (M = 2.88, SD = 0.97), $t(183) = -15.52$, $p < .001$, 95% $CI_{difference}$ [−3.27, −2.53], $d = -2.71$, and likewise, more generous after giving away the better item than after keeping the better item for oneself, $t(183) = -14.79$, $p < .001$, 95% $CI_{difference}$ [−3.69, −2.82], $d = -3.04$.

Although less central to our primary hypotheses, we also conducted exploratory analyses over third-party observers' evaluations of Friend B (the person who initially did not control the golf balls). Evaluations varied by condition, $F(3, 183) = 158.87$, $p < .001$, $\eta_p^2 = .72$. Specifically, third-party observers reported similar evaluations of Friend B whenever the first individual allocated, no

matter whether the allocation was generous ($M = 4.16$, $SD = 0.61$) or selfish ($M = 4.16$, $SD = 0.73$), $t(183) = 0.01$, $p = .989$, 95% $CI_{difference}$ [−0.32, 0.32], $d = 0.00$. By contrast, when the first individual abdicated, observers evaluated Friend B as more generous when the person responded by generously giving away the good item ($M = 6.36$, $SD = 0.82$) than by selfishly giving away the bad item ($M = 2.84$, $SD = 0.95$), $t(183) = 21.42$, $p < .001$, 95% $CI_{difference}$ [3.19, 3.84], $d = 4.47$.

Discussion

Third-party observers, like allocators, see abdicators as generous. Thus, when people relinquish control over resources, they tend to be evaluated positively regardless of whether the evaluator him or herself has opportunities to respond with a reciprocal act of generosity.

This result provides two insights. First, it demonstrates that even third parties construe abdication as a generous act. Second, it lends further credence to the possibility that perceptions of generosity drive allocators' decisions: After one individual abdicates, allocators interpret this action to be generous, and these perceptions of generosity may prompt allocators to reciprocate.

Study 4: Perceptions of Generosity Drive Reciprocity

Abdication increases rates of generosity (Study 2) and appears generous to both allocators and observers (Studies 3a and 3b), but these findings by themselves do not demonstrate that perceived generosity *drives* allocators' tendencies to reciprocate. Allocators and observers reported that abdicators seemed generous, but allocators may or may not spontaneously attend to the generosity of the abdicator when deciding which resource to give away. A direct test of the mechanism—perceived generosity—would provide stronger support for the proposed process.

In Study 4, participants allocated resources within "abdication" or "baseline" conditions. Before allocating resources, however, participants additionally completed items representing several possible mediating variables. We have hypothesized that high rates of generosity among allocators owe to reciprocity—namely, that allocators see abdication as generous and want to return the favor—but we note that other accounts are also consistent with our findings.

One alternative to the reciprocity account is that allocators *want* to give the better item to abdicators. Abdication might signal that the items do not differ greatly in quality, which leads allocators themselves to see the two items as more similar in quality after the other individual abdicates. Abdication could therefore increase allocators' desire to give the better item away because they feel they only have to pay a low cost to do something nice. Another alternative is that allocators feel that they *should* give the better item back to abdicators. Allocators might think less about the motives of the abdicator and more about how other individuals would interpret the act of abdication, and allocators who believe that others would see abdication as generous may be more likely themselves to feel obligated to give the better item back in return, whether or not they also see abdication as generous.

Despite these alternatives, we predicted that abdication elevates generosity by causing the allocator to see the abdicator as more generous, thus prompting him to reciprocate. We made this prediction because people often expect others to do what is best for themselves in social situations (Kramer, 1994; Miller & Ratner, 1998). Thus, because abdication requires resisting this urge to take the better item for oneself, abdicating might be construed as generous. Indeed, in Study 3a allocators considered abdication to be nearly as generous as giving away the better item, and we expected that these perceptions would account for differences in rates of generosity between abdicators and allocators.

Method

Participants. We recruited 294 participants from Amazon Mechanical Turk ($M_{age} = 37.64$; $SD_{age} = 12.04$; 54% female; 74% Caucasian) to complete a research study in exchange for $0.25. An additional 27 participants were excluded because they failed one or more of two attention check items (see online supplemental material S7 for analyses including all participants).

Procedure. Participants were randomly assigned to either the baseline or abdication condition. The procedure was identical to Study 2 with one exception. After deciding how to distribute the two gift cards, participants reported how much they *wanted* to give their friend the high-quality gift card, how much they felt like they *should* give their friend the high-quality gift card, and the extent to which they felt like their friend is generous, on separate scales ranging from 1 (*not at all*) to 7 (*completely*). Participants then responded to the same attention check questions and were debriefed.

Results

Allocators in the baseline condition were generous (70%) more often than selfish (30%), $\chi^2(1, N = 155) = 25.61$, $p < .001$. Likewise, allocators in the abdication condition were generous (80%) more often than selfish (20%), $\chi^2(1, N = 139) = 49.56$, $p < .001$. Critically, replicating the results from Study 2, allocators were marginally more generous in the abdication condition than the baseline condition, $Z = -1.88$, $p = .060$, 95% $CI_{difference}$ [−19.47%, 0.40%].

Allocators in the baseline ($M = 5.16$, $SD = 1.91$) and abdication ($M = 5.35$, $SD = 1.70$) conditions did not differ in feeling that they "wanted" to be generous, $t(292) = -0.87$, $p = .385$, 95% $CI_{difference}$ [−0.60, 0.23], $d = -0.10$, and allocators in the abdication condition ($M = 5.44$, $SD = 1.76$) felt marginally more than those in the baseline condition ($M = 5.04$, $SD = 1.95$) that they "should" be generous, $t(292) = -1.84$, $p = .067$, 95% $CI_{difference}$ [−0.83, 0.03], $d = -0.21$. However, allocators in the abdication condition ($M = 5.29$, $SD = 1.45$) reported that their friend was significantly more generous than allocators in the baseline condition ($M = 4.69$, $SD = 1.61$), $t(292) = -3.38$, $p < .001$, 95% $CI_{difference}$ [−0.96, −0.25], $d = -0.39$.

Next, we conducted mediational analyses using condition as the independent variable and allocation as the dependent variable. When the three possible mediators were entered separately, the 95% bias-corrected confidence intervals for size of the total indirect effect of condition on behavior included zero for "want" [−0.26, 0.53], and "should" [−0.03, 0.72], but excluded zero for "generous" [0.07, 0.38], indicating significant mediation (see Figure 3). When the three mediators were entered into the model in parallel, the model did not produce significant mediation for any of

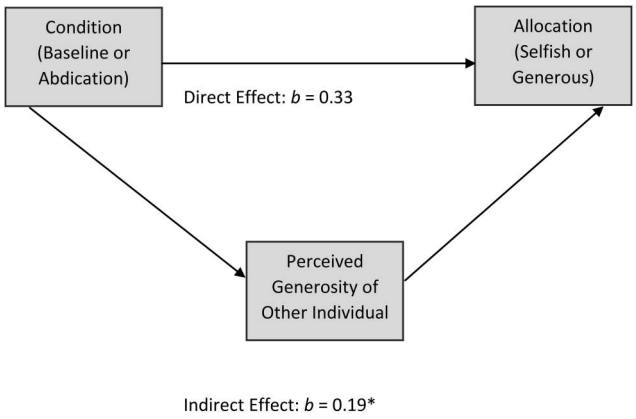

Figure 3. Mediation analysis of Study 4: Perceived generosity of the other individual as a mediator of the effect of condition on allocation. Asterisks indicate significant paths (* $p < .05$).

the three variables: "want" [−0.19, 0.47], "should" [−0.03, 0.58], or "generous" [−0.36, 0.07].

We also computed correlations among the "generous," "want," and "should" variables. The "generous" and "want" variables were positively correlated, $r = .43$, $t(292) = 8.12$, $p < .001$, 95% CI [.33, .52], as were the "generous" and "should" variables, $r = .36$, $t(292) = 6.52$, $p < .001$, 95% CI [.25, .45], and the "want" and "should" variables, $r = .69$, $t(292) = 16.14$, $p < .001$, 95% CI [.62, .74].

Finally, we computed correlations between each of these variables and the allocation measure (0 = selfish; 1 = generous). Across the baseline and abdication conditions, the degree to which participants "wanted" to give away the better gift card correlated positively with generous allocations, $r = .62$, $t(292) = 13.58$, $p < .001$, 95% CI [.55, .69], as did the degree to which participants felt that they "should" give away the better gift card, $r = .63$, $t(292) = 13.69$, $p < .001$, 95% CI [.55, .69], and the degree to which participants perceived the other individual as generous, $r = .23$, $t(292) = 4.09$, $p < .001$, 95% CI [.12, .34].

Discussion

Allocators exhibited directionally greater rates of generosity in the abdication relative to baseline condition, consistent with the significant increase we observed in Study 2. The mediational tests suggest that this relationship may be best explained by the degree to which participants viewed the other individual as generous. The mediational analyses are correlational and do not provide direct evidence for causation, but nevertheless, these results are consistent with the account that people see abdicators as generous, and that these elevated perceptions of generosity prompt people to return the favor by giving away the better item.

We note that choice correlated more strongly with the "want" and "should" variables than with the "generous" variable, despite that only perceived generosity mediated the influence of condition on choice. We speculate that this pattern of results owes to differences in the content of these measures. Specifically, the "want" and "should" measures prompt people to report the degree to which they feel inclined to give away the better gift card, and so these variables may be tightly linked to choice across participants (hence, the stronger correlations with choice). However, mean-level ratings on the "want" and "should" variables did not differ significantly between conditions, and so they nevertheless fail to explain differences in choice between the baseline and abdication conditions (hence, the nonsignificant indirect effects). By contrast, the "generous" variable prompts people to report their evaluations of the other individual but not the degree to which they feel inclined to give away the better gift card, and so the "generous" variable may be less tightly linked to choice across participants (hence, the weaker correlation with choice). Even still, perceived generosity differs between conditions, and so this measure better explains differences in choice between the baseline and abdication conditions (hence, the significant indirect effect). Each of the "want," "should," and "generous" variables correlate significantly with choice, but we observed strongest support for the mediating role of perceived generosity.

Although the "want" and "should" variables did not significantly mediate the influence of condition on rates of generosity, we note that these data do not rule out the possibility that the "want" and "should" variables also help to explain reciprocity. The confidence intervals for the "want" and "should" variables overlapped with the confidence interval for the "generous" variable, and further, the three variables were positively correlated with one another in this study. One possibility is that perceptions of generosity influence the degree to which allocators want to, or feel that they should, give away the better resource. For example, when one individual abdicates, the allocator might see this gesture as generous but also feel socially pressured to reciprocate one act of generosity (abdication) with another (giving away the better item). Future research will be needed to examine whether the "want" and "should" variables also help to explain reciprocity, and if so, whether perceptions of generosity are partly responsible for people's desire to, or feelings that they should, respond to abdication by giving away the better resource.

Although we detected positive reciprocity in both Studies 2 and 4, we observed a large discrepancy in the effect sizes between these two studies. To obtain a better estimate of the true effect size, we ran a direct replication of Study 2 (preregistered at https://aspredicted.org/99p7h.pdf; see online supplemental material S8 for complete method and results). We recruited 322 participants (30 additional participants were excluded because of failed attention checks) and observed that allocators were generous more often in the abdication condition (84%) than the baseline condition (67%), $Z = -3.49$, $p < .001$, 95% $CI_{difference}$ [−26%, −7%], replicating the results from Studies 2 and 4 and providing further confidence in our central prediction.

Study 5: Abdication Prompts Reciprocity Among Friends and Strangers

Having established that abdication prompts reciprocity among friends, next we tested whether abdication prompts reciprocity among both friends and strangers (preregistered at https://aspredicted.org/st4aw.pdf). One possibility is that abdication prompts reciprocity only among friends: this could occur because people may hold strong expectations that strangers would not behave generously, and so after one stranger abdicates, allocators might interpret this behavior as a sign of indifference rather than as an act of gener-

osity. Nevertheless, we predicted that abdication would prompt reciprocity even among strangers. This could occur because people may feel surprised when a stranger resists behaving selfishly, and because doing so may appear generous, participants may respond to strangers, as well, with reciprocal generosity.

In Study 5 we tested these possibilities using the gift cards scenario. Participants were assigned to one of two relationship types (friend or stranger) and one of two conditions (baseline or abdication). We predicted that abdication would increase rates of generosity among both friends and strangers.

Method

Participants. We recruited 505 participants from Amazon Mechanical Turk (M_{age} = 36.20; SD_{age} = 11.50; 54% female; 75% Caucasian) to complete a research study in exchange for $0.25. Fifty-eight additional participants were excluded because they failed one or more of three attention check items.

Procedure. Participants were told that they would read a short story about a social situation and that they would be asked to imagine that they were one of the characters in the story.

Participants were randomly assigned to either the baseline or abdication condition. All participants first read the gift cards scenario from Studies 1a and 2. For example, the "abdication" conditions read:

> Imagine that you [and your friend] book plane tickets to fly across the country. The flight is delayed overnight, and as an apology the airline promises to give gift cards to all passengers. You and a stranger who you do not know [your friend] approach the flight attendant to claim your gift cards. The flight attendant has only two gift cards left on hand, and they are each slightly different: one has high value whereas the other has medium value, although both can be used at the same stores.
>
> Both you and the stranger [your friend] see both gift cards as well as their value. Because the stranger [your friend] happens to be standing closer, the attendant gives both gift cards to the stranger [your friend].
>
> Suppose that the stranger [your friend] asks you to choose who gets which gift card. Now you need to decide what to do next.
>
> You could make one of two decisions:
>
> 1. Take the high-value gift card for yourself and give the medium-value gift card to the stranger [your friend].
>
> 2. Take the medium-value gift card for yourself and give the high-value gift card to the stranger [your friend].

All participants selected one of the two gift cards. Participants then responded to three attention check questions. Finally, participants responded to demographic questions and were debriefed.

Results

First we tested the primary prediction that abdication prompts reciprocity. Across the friend and stranger conditions, participants were generous more often in the abdication condition (79%) than in the baseline condition (47%), $Z = 7.40$, $p < .001$, 95% $CI_{difference}$ [24%, 41%], consistent with the hypothesis. People tended to behave more generously toward the other individual after the person had relinquished control.

Next we tested the same prediction within the friend and stranger conditions separately. Friends were generous more often in the abdication condition (87%) than in the baseline condition (61%), $Z = 4.57$, $p < .001$, 95% $CI_{difference}$ [15%, 37%], consistent with our hypothesis as well as the results from Study 2. Critically, strangers were also more generous in the abdication condition (72%) than in the baseline condition (33%), $Z = 6.16$, $p < .001$, 95% $CI_{difference}$ [26%, 51%] (see Figure 4). We also note that whereas the majority of strangers in the baseline condition were selfish (33% generous; 67% selfish), $\chi^2(1, N = 135) = 15.00$, $p < .001$, the majority of strangers in the abdication condition were generous (72% generous; 28% selfish), $\chi^2(1, N = 121) = 23.21$, $p < .001$. Abdication prompts reciprocity, and it does so among both friends and strangers.

Discussion

In Study 5, both friends and strangers were generous more often after another individual had first abdicated. That is, abdication prompts reciprocal generosity in both close and distant relationships. The effect of abdication on generosity was so strong, in fact, that strangers—who were more often selfish than generous in the baseline condition—were *more* likely to be generous than selfish to another stranger, if that stranger had first abdicated. Thus, both friends and strangers seem willing to give away valuable resources to another individual, and especially so after that individual has abdicated.

In this study, however, generosity was costless for participants: People imagined giving away a gift card but they did not sacrifice real resources. In Study 6, we addressed this concern by testing reciprocity when people allocate gift cards with real monetary value.

Study 6: Abdication Prompts People to Give More Money to Strangers

To this point, we have observed that abdication increases rates of generosity only in hypothetical scenarios. People might be more highly motivated to take higher-value resources during real resource allocations, and this could have two consequences: (a) rates of generosity might be lower in actual resource allocations; and (b) people might be less likely to respond to abdication by generously

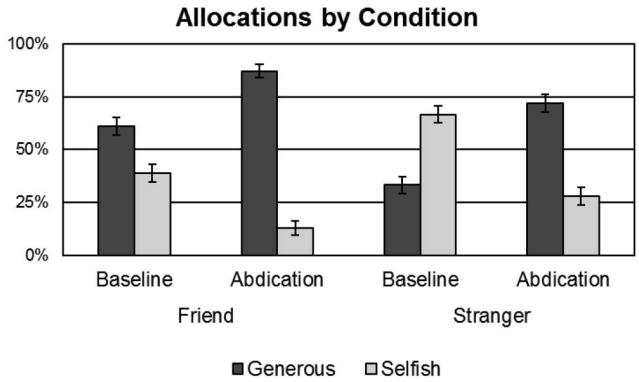

Figure 4. Rates of generosity and selfishness across conditions and relationships. Error bars ±1 *SE*.

giving away high-value resources. Furthermore, people might form more sinister interpretations of abdication when real resources are at stake, and this raises the possibility that abdication might have little effect on rates of generosity—or even diminish rates of generosity—when people allocate real rather than hypothetical resources.

Therefore, in Study 6 we asked participants to allocate gift cards with monetary value between themselves and a stranger (preregistered at https://aspredicted.org/wk2y2.pdf and amended at https://aspredicted.org/2uv7e.pdf). Participants were assigned to one of two conditions (baseline or abdication), and we measured the proportion of participants who selfishly kept the high-value gift card for themselves versus generously gave away the high-value gift card to the stranger. We predicted that rates of generosity would be greater in the abdication condition than in the baseline condition, consistent with our previous findings.

Method

Pilot study. Before conducting the experiment with actual gift cards, we conducted an online pilot study using a hypothetical version of the procedure (see online supplemental material S9 for the full method and results). Rates of generosity were greater in the abdication condition (42%) than in the baseline condition (26%), $Z = 2.45$, $p = .014$, 95% $CI_{difference}$ [3%, 30%], consistent with our predictions and our previous findings. Perceptions of the other person's generosity were also greater in the abdication condition ($M = 5.20$, $SD = 1.39$) than in the baseline condition ($M = 3.94$, $SD = 1.08$), $t(196) = 7.11$, $p < .001$, 95% $CI_{difference}$ [0.91, 1.61], $d = 1.01$. Finally, perceptions of generosity significantly mediated the relationship between condition and resource allocation behavior, 95% bias-corrected confidence interval [0.19, 0.90].

Participants. We recruited 126 visitors from a local park ($M_{age} = 33.57$; $SD_{age} = 14.28$; 66% female; 63% Caucasian) to participate in a study about product judgments. An additional four participants were excluded because of technical difficulties with the survey and failures to follow instructions. Further, another 22 participants were removed from all analyses because they completed a "filler" version of the study to ensure that the procedure would comply with the park's no-deception policy (see online supplemental material S10 for details).

Procedure. A research assistant approached visitors in a local, public park and asked them to participate in a brief study about product judgments. If the person agreed to participate, the person first completed several filler items in the survey. Specifically, they were asked how often they browse products on Amazon.com (*never* vs. *1–5 times per year* vs. *6–10 times per year* vs. *11–20 times per year* vs. *21–30 times per year* vs. *31–40 times per year* vs. *More than 40 times per year*), how often they purchase products on Amazon.com (*never* vs. *1–5 times per year* vs. *6–10 times per year* vs. *11–20 times per year* vs. *21–30 times per year* vs. *31–40 times per year* vs. *More than 40 times per year*), and how they would rate the quality of products that are available on Amazon.com (1 = *not at all high in quality*; 7 = *extremely high in quality*). Then they were told that Amazon recently bought the Whole Foods supermarket chain and were asked how they expected this to affect the quality of products offered at Whole Foods, the price of products offered at Whole Foods, and their likelihood of shopping at Whole Foods (−3 = *much lower*; 0 = *neither lower nor higher*; 3 = *much higher*; *do not know vs. haven't heard about this*).

After completing the filler items, participants were told that they had been randomly matched with another person who just participated in the study. They were told that both individuals would receive one Amazon eGift Card by e-mail after the end of the study: One individual would receive a $1.00 eGift Card and the other would receive a $1.50 eGift Card.

Then the experimenter assigned participants to either the baseline or abdication condition. Participants in the *baseline* condition were told that they had been randomly assigned to choose who gets which eGift Card. Participants in the *abdication* condition were told that the other person was randomly assigned to decide which individual would distribute the gift cards, and that this person had decided to allow the current participant to choose. Thus, in both the baseline and abdication conditions, participants were asked to allocate the two gift cards, but in the abdication condition participants were additionally told that another individual had first asked them to choose.

Participants in both conditions then indicated which eGift Card they would like to keep for themselves and which they would like to give away. Then participants rated the extent to which they felt like the other participant is generous (1 = *not at all*; 7 = *completely*), provided the e-mail address at which they would receive the eGift Card, and completed demographic items.

Results

First we tested the primary prediction that abdication prompts reciprocity. Participants gave away the high-value gift card more often in the abdication condition (69%) than in the baseline condition (52%), $Z = 2.01$, $p = .044$, 95% $CI_{difference}$ [0.46%, 34.73%], consistent with the hypothesis. Abdication prompted people to give away money that they could otherwise have kept for themselves.

Next we tested the hypothesis that people seem more generous after abdicating. Participants rated the stranger as more generous in the abdication condition ($M = 5.26$, $SD = 1.44$) than in the baseline condition ($M = 4.59$, $SD = 1.57$), $t(124) = 2.49$, $p = .014$, 95% $CI_{difference}$ [0.14, 1.21], $d = 0.45$, again consistent with the prediction that people seem generous after relinquishing control.

Finally, we tested the hypothesis that perceptions of generosity mediate the effect of abdication on giving away the high-value gift card. We entered condition (baseline or abdication) as the independent variable, perceived generosity as the mediating variable and behavior (selfish or generous) as the dependent variable. The 95% bias-corrected confidence interval for size of the total indirect effect of condition on behavior did not exclude zero, [−0.08, 0.36], indicating that mediation was not significant.

Discussion

Study 6 suggests that abdication prompts reciprocity even when reciprocating is costly. People were more likely to give the high-value eGift Card to a stranger when that stranger had first abdicated, and they did so despite knowing that the gift cards were real and that being generous involved relinquishing monetary resources. Further, participants rated the stranger as more generous

when they believed that the stranger had abdicated, indicating that abdication provides both reputational and (often) material benefits to those who relinquish control. Abdication, it seems, not only prompts reciprocity when people imagine allocating valuable resources, but likewise prompts reciprocity when people actually allocate these resources between themselves and others.

In this experiment, perceptions of generosity did not mediate the relationship between condition (baseline or abdication) and rates of generosity. Thus, our data provide support for generosity as a mediator in one experiment (Study 4) but not another (Study 6). To obtain a more precise estimate of the strength of generosity as a mediator, we conducted a preregistered, direct replication of Study 4 in which participants read the gift cards scenario, were assigned to one of two conditions (baseline or abdication), chose one of the two gift cards, and reported evaluations on the three potential mediating variables from Study 4: the degree to which they *wanted* to give away the better gift card, the degree to which they felt they *should* give away the better gift card, and how *generous* they perceived their friend to be (preregistered at https://aspredicted.org/a8yn3.pdf). Allocators were generous directionally more often in the abdication condition (78%) than the baseline condition (68%), $Z = -1.94$, $p = .053$, 95% $CI_{difference}$ [−19.70%, 0.12%], in a direction consistent with the findings from Studies 2 and 4. Furthermore, we observed evidence for perceived generosity as a mediator: When the three possible mediators were entered separately, the 95% bias-corrected confidence intervals for size of the total indirect effect of condition on behavior included zero for "want" [−0.52, 0.40], and "should" [−0.28, 0.90], but excluded zero for "generous" [0.02, 0.25], indicating significant mediation. We obtained similar results when entering the three mediators into the model in parallel (see online supplemental material S11 for the full results).

Abdication prompts reciprocal generosity, and the direct replication provides some support for the mediating role of perceived generosity. That said, Study 4 and the direct replication involved imagined resource allocations whereas Study 6 involved actual resource allocations, and we did not observe significant mediation when people allocated real resources. Additional studies with larger samples could provide a better estimate of the relationship between perceived generosity and rates of generosity when people allocate actual resources, such as gift cards, between themselves and others.

Finally, we conducted an internal meta-analysis to test the strength of reciprocity across both real and hypothetical contexts (see Table 2). Across seven experimental studies ($N = 2065$), abdication participants (77%) were generous more often than baseline participants (57%), $Z = 9.71$, $p < .001$, 95% $CI_{difference}$ [16%, 24%]. Thus, the central finding—that relinquishing control prompts reciprocity—appears highly robust across multiple contexts.

General Discussion

People often allocate resources such as money, food, and leisure opportunities between themselves and others. Eight studies find that allocators behave more generously after another individual abdicates the decision to them. People abdicated such decisions frequently, both in scenarios (Study 1a) and in live interactions (Study 1b), and abdicating prompted allocators to reciprocate by giving the better resource to the abdicator (Studies 2 and 4). Allocators were generous following abdication in part because they interpreted abdication as a generous act; in fact, people reported that abdicators seemed nearly as generous as individuals who simply gave away the better resource (Studies 3a and 3b), and these perceptions partly drove reciprocal generosity (Study 4). Finally, abdication prompted reciprocity among both friends and strangers (Study 5), and did so even when the resources had real monetary value (Study 6). In sum, abdication seems to be beneficial in more ways than one: Abdicators are not only perceived to be generous, but they also tend to receive the larger slice of the pie.

The Abdication Strategy: Giving Away One's Cake and Eating It Too

Resource allocation has the potential to confer many different rewards to the allocator, and two of these rewards typically work in opposition to one another. The first reward is reputational benefit. Allocators who "do unto others" generous deeds such as giving time, money, and gifts often do not receive tangible rewards for the self, but rather such generosity leads to reputational benefits that cause people to like the allocator more and want to build relationships with her (Barclay & Willer, 2007; Baumeister, 1982; Kenny et al., 2001). The second reward is material benefit: Recipients of generous deeds benefit because they receive tangible rewards that they consume or exchange for other valuable resources. In general, to allocate resources generously is to miss out on many of the benefits of these allocations—people often must decide between baking the cake (being seen as generous, but not getting the material reward) and eating it (getting the material reward, but not being

Table 2
Rates of Generosity by Condition (Baseline or Abdication) and Study

Study	Resources	*N*	Baseline generosity	Abdication generosity	*p*
Study 2	Hypothetical	310	59%	90%	<.001
Study 4	Hypothetical	294	70%	80%	.060
Study 4 posttest	Hypothetical	322	67%	84%	<.001
Study 5	Hypothetical	505	47%	79%	<.001
Study 6 pilot	Hypothetical	198	26%	42%	.014
Study 6	Real	126	52%	69%	.044
Study 4 replication	Hypothetical	310	68%	78%	.053

seen as generous). Thus, in light of the critical importance of resources for interpersonal relationships as well as society at large, previous literature has often considered how people navigate the tradeoffs between generosity and material benefits that seem inherent to resource allocation (Adams, 1965; Colquitt et al., 2001; Homans, 1961; Hook & Cook, 1979; Messick, 1995; Thibaut & Walker, 1975; see also Hamman, Loewenstein, & Weber, 2010; Paharia, Kassam, Greene, & Bazerman, 2009).

Our experiments qualify these assumptions by suggesting that relinquishing control, or abdicating, may allow material and reputational rewards to work in tandem. Further, we argue that features of the social interaction itself may predict whether reputational rewards and material rewards typically work in opposition or in tandem. Consider most routine cases of reciprocity: One individual behaves generously toward another individual at one point in time and then, after some delay, the second individual reciprocates by behaving generously toward the first (for a review, see Rand & Nowak, 2013). Because material rewards are realized separately during each interaction, the first individual incurs an up-front cost whether or not the initial act of generosity is reciprocated. In contrast, consider the case of abdication most commonly displayed in our studies: The abdicator relinquishes control to the allocator and then the allocator immediately reciprocates by giving the better resource to the abdicator. In this case, material benefits are not realized after the initial act of generosity; in fact, the allocator uses the material benefit itself as a medium for repaying the initial act, thus nullifying the up-front cost that the abdicator *would* have incurred. Consequently, abdicators get ahead in more ways than one: They seem generous for abdicating and they receive the better resource that they could have given away. In this way, abdication provides a unique opportunity for people to give up their cake and eat it too.

Thus, in stark contrast to the old adage that "nice guys finish last," our results expand a growing body of work revealing that at times, "nice guys finish first" because the immediate or delayed benefits of reputational acclaim may exceed the costs of earning it. Although being selfish often guarantees more short-term benefits, these often come at the expense of long-term gains that one can reap from being cooperative. Relatedly, computer simulations and empirical demonstrations have found that tit-for-tat (being initially generous and then copying what one's partner does) is an excellent strategy for maximizing one's earnings in economic games like the prisoner's dilemma (Axelrod, 1984; Binmore, 2006; Delton et al., 2011). That is, being cooperative initially in these games is a much better strategy for maximizing one's earnings than just behaving selfishly.

The benefits of being cooperative, of course, also appear in real world settings; within organizations, individuals who share knowledge with others tend to gain status over time even though sharing knowledge may cost these individuals time and energy (Cheng, Tracy, Foulsham, Kingstone, & Henrich, 2013; Grant, 2013; Grant & Gino, 2010; Grant, Parker, & Collins, 2009; Hardy & Van Vugt, 2006; Jensen-Campbell, Knack, & Gomez, 2010). Likewise, hotel guests are more likely to reuse their towels when charitable donations on behalf of these guests are made *before* guests use their towels than when charitable donations will be made *after* guests have already reused their towels. This "reciprocity-by-proxy" strategy also suggests that initial, noncontingent acts of generosity may prompt highly desirable outcomes through positive reciprocity (Goldstein et al., 2012). Abdication likewise appears to provide benefits and entails very little cost: At worst the abdicator will sacrifice a desirable resource and be seen as generous and at best they will receive the desirable resource and still be seen as generous.

In our studies, we tested material resource allocations, but our mechanism predicts that these findings should generalize to certain contexts in which people allocate nonmaterial resources as well. For example, when two individuals arrive simultaneously at the same grocery line, abdicating the decision ("Do you want to go first or should I?") may likewise appear generous because this requires that the first individual overcome the temptation to forge ahead and jump closer to the front of the line. As a result, the second individual may respond with a reciprocal act of generosity ("It's fine, you go ahead!"). Therefore, the abdicator may both appear generous and (often) receive the better position in the grocery line, similar to our findings in the context of material resources. In contrast, we speculate that some contexts may limit the degree to which abdicating nonmaterial decisions appears generous: for example, relinquishing control over dinner plans to one's partner could, at times, provoke frustration rather than gratitude because the number of options is high and the value of those options is ambiguous. The allocator not only needs to negotiate both one's own and the partner's preferences, but tacitly assumes responsibility for any culinary misadventures that might result from his final decision. When the value of the resources is ambiguous, in other words, relinquishing control may appear less generous. Nevertheless, when the value of the resources is unambiguous, as we examined in our studies, we make similar predictions for material and nonmaterial resources: namely, that abdicating the decision appears generous and often prompts the allocator to respond with a reciprocal act of generosity.

Additionally, the majority of our data involve imagined rather than actual resource allocations, but we expect that these effects would likely generalize to many contexts involving actual resource allocations. In addition to examining reciprocity with monetary resources in Study 6, we conducted a hypothetical version of the same study (see online supplemental material S8). Abdication prompted reciprocity in both actual (69% vs. 52%) and hypothetical resource allocations (42% vs. 26%). Base rates of generosity were greater when people allocated actual monetary resources, but differences in rates of generosity between conditions were similar in both actual (17 percentage points) and hypothetical allocations (16 percentage points). Although these studies recruited participants from different samples and cannot be compared directly, we note that the effect sizes do not differ sharply. This provides preliminary support for the possibility that the effect sizes we observed in our other scenarios might resemble the ones we would observe if we conducted these studies with actual resources. Future studies could manipulate both condition (baseline or abdication) and resource type (hypothetical or real) to test systematically whether abdication prompts reciprocity to a similar degree in both hypothetical and actual resource allocations.

Why Should Abdicating Elicit Generosity Versus Selfishness?

Although people commonly abdicate decisions to others, previous research has seldom examined contexts in which people ask others to choose (for recent exceptions, see Bobadilla-Suarez et al., 2017; Steffel et al., 2016), and so there are still many avenues to explore beyond the initial findings we report here. To help shape future research on abdication, we first advance a framework for predicting when, and why, abdication should prompt reciprocity. Then we explore predictions of this framework in the context of several common features of resource allocation.

In the current experiments, abdication prompted allocators to give the better item away to abdicators, and this occurred in part because allocators interpreted abdication to be generous. However, abdication may not always elicit equally charitable interpretations. We suggest that allocators' expectations may drive how they interpret abdication and, in turn, the frequency with which they respond generously or selfishly. Specifically, when people expect another individual to be relatively selfish, they should evaluate abdication favorably because abdicating entails relinquishing their entitlement to the better item. Therefore, in these situations allocators may be likely to give away the better resource—a form of positive reciprocity, like we observed in our experiments. By contrast, when people expect another individual to be relatively generous, they should evaluate abdication unfavorably because abdicating entails departing from this obligation to be generous. Thus, in these situations allocators may less likely to give away the better resource after the other individual abdicates.

Recent normative theories underscore that people's expectations partly drive how they construe resource allocation behaviors, and thus these theories lend support to our framework. For example, when people allocate resources to others, the same distributions seem generous in the context of many selfish options but selfish in the context of many generous options (e.g., Falk, Fehr, & Fischbacher, 2003; List, 2007). This may occur in part because the set of possible distributions generates expectations which, in turn, influence how people evaluate each of the possible decisions.

Likewise, several empirical findings highlight the importance of expectations in guiding people's reactions to social situations. First, in the absence of any dispute, American southerners from "cultures of honor" tend to behave as politely, or more so, than do northerners. However, southerners also react *more* aggressively than northerners when another person insults them, perhaps in part because these insults violate their expectations about normative social behavior (Cohen, Nisbett, Bowdle, & Schwarz, 1996; Cohen, Vandello, Puente, & Rantilla, 1999). Similarly, people who are dispositionally warm and friendly toward others—that is, people high in agreeableness—sometimes exhibit *greater* anger compared with those low in agreeableness when others engage in upsetting or manipulative conflict resolution strategies (Jensen-Campbell et al., 2010; Suls, Martin, & David, 1998). These tactics diverge from agreeable people's expectations about conflict resolution, and as a result, their negative reactions tend to be more extreme.

Our framework translates these principles to the context of abdication: people's expectations about the abdicator's behavior may guide how they evaluate, and then respond to, abdication. Therefore, features of the interaction that cause allocators to be cynical—that is, to expect others to be selfish—may cause abdication to seem quite gracious, and consequently, may prompt allocators to kindly give away the better resource. By contrast, features that cause allocators to feel more trusting—that is, to expect others to give them the better resource from the start—may cause abdication to seem rather stingy, and as a result, may prompt allocators to simply keep the better resource for themselves.

Even still, multiple psychological mechanisms may contribute to reciprocity. We tested only a small number of mediating variables in Study 4, and so the data in this paper do not assess the degree to which additional mechanisms besides perceived generosity may also drive reciprocity. For example, abdicators empower allocators when they relinquish control, and this transfer of power might prompt allocators to behave more kindly. People with communal orientations tend to associate power with social-responsibility goals (Chen et al., 2001), and the context of allocating resources may activate communal goals that, in turn, might promote generosity after the abdicator empowers the allocator by relinquishing control. Additionally, abdicating may convey that the abdicator *wants* the better item but would rather politely ask the allocator to choose than impolitely take the better item from the start. Allocators who form this interpretation may give away the better item not only because they construe abdication as generous, but also because they feel indebted to the other individual for behaving politely and, as a result, feel socially pressured to comply with the abdicator's tacit request. People are surprisingly likely to yield to others' requests (Bohns, 2016), and so allocators who assume the abdicator prefers the better item may feel compelled to give that item away.

These additional mechanisms could be tested by *interrupting* the interaction before the allocator has the opportunity to reciprocate and then observing the allocator's behavior toward the abdicator in an unrelated context. For example, participants could imagine that another individual abdicates the choice between two raffle tickets, one highly legible and the other only somewhat legible, before the clerk discovers additional inventory and hands highly legible tickets to both individuals. The generosity mechanism predicts that the allocator should be inclined to reciprocate in an unrelated context to repay the initial act of generosity—for example, offering to pay for the other person's drink—whereas the transfer of power and social pressure mechanisms predict that increases in generosity should be restricted to the context in which the abdicator relinquished control. Interrupting the resource allocation, and then measuring the allocator's behavior in another context, may help to test between these competing mechanisms.

Nevertheless, we speculate that these additional mechanisms—transfer of power and social pressure—may sometimes act in tandem, rather than in competition, with the proposed generosity mechanism during uninterrupted resource allocations like the ones we have studied in this paper. When one individual abdicates, the allocator may perceive a transfer of power from the abdicator to oneself, and because the allocator perceives this transfer of power, the abdicator's gesture may appear generous. Then, being (at least temporarily) the benefactor of abdicator's generous act, the allocator might feel

pressured to reciprocate one kind act with another by giving away the better item. We do not argue that these psychological mechanisms are causally linked to perceived generosity in all contexts, but we speculate that they may often be highly correlated. Future research could enrich our current investigation by examining the degree to which each of these mechanisms drives reciprocity, as well as when, and how, these mechanisms may be causally linked with one another.

When Should Abdicating Elicit Generosity Versus Selfishness?

The preceding accounts predict that abdication should elicit greater reciprocity in some circumstances than others. Consider the relationship between the two individuals. We suspect that strangers would be less likely than friends to abdicate and would be more likely to simply choose selfishly (e.g., Hoffman, McCabe, & Smith, 1996). However, for the same reason, we expect that allocators would see any act of abdication on the part of a stranger as particularly generous, and as a result abdication might boost rates of generosity to an even greater degree among strangers than among friends. In Study 5, strangers and friends were both more generous in the abdication condition than the baseline condition, but this difference was directionally greater for strangers (44 percentage points: 72% vs. 28%) than for friends (26 percentage points: 87% vs. 61%). Study 5 was not designed to test for differences between friends and strangers, but running a similar study with larger sample size would provide a better estimate of whether friends and strangers differ in rates of reciprocity, and if so, how large these differences are.

We also expect that differences in deservingness or merit would influence people's willingness to abdicate and their responses to abdication. We tested situations in which two individuals were equally deserving of the resources and one individual was assigned purely by chance to allocate these resources—for example, because one individual happened to be standing closer to the person who supplied the resources. We believe that many everyday resource allocation experiences resemble these contexts in which both individuals are equally deserving, as when two friends jointly decide where to go for dinner or when a couple selects a city for a vacation together. But in other situations, one individual may appear more deserving of a resource than another individual, such as when one person wins a free meal in a raffle and then invites another individual to join, or when one person works to earn money and then spends the money on behalf of herself and another individual. In these cases, we expect that resource allocation behavior may differ from the patterns we documented in our studies. Because the highly deserving person likely feels justified in receiving the better of two resources (Hook & Cook, 1979; List, 2007), these individuals might be less likely to relinquish control to others. And for the same reason, when highly deserving individuals *do* relinquish control, we expect that allocators would see this act as especially generous and therefore be especially likely to reciprocate by giving back the better resource. Relinquishing control is potentially costly for the abdicator, and abdication may be especially likely to prompt reciprocal generosity to the extent that ceding control appears even more costly.

Further, the value of the resources may also influence reciprocity. For example, people may be less likely to behave generously when resources are valuable, and as a result, high stakes may reduce the degree to which abdication boosts generosity. This may be especially true when people allocate resources between themselves and strangers, considering that people tend to behave less generously toward strangers even for low-stakes decisions. Alternatively, at times allocators may be *more* likely to reciprocate during high-stakes decisions because they will see abdication as especially generous. Allocators may assume that the other individual is especially likely to take the better resource when that resource is valuable, and so when the person instead abdicates, the act may seem highly generous. Thus, abdicating decisions over high-value resources may be even more likely to elicit reciprocity. We speculate that this may be especially likely to occur when people allocate resources between themselves and close friends or family because people may be less likely to ascribe ulterior motivations to close friends and family members who abdicate, even when the decision stakes are high. Relatedly, raising the stakes of financial outcomes can sometimes have surprisingly little impact on cooperative decision making (van den Assem, van Dolder, & Thaler, 2012), corroborating the possibility that abdication might prompt reciprocity for highly valued resources as well.

However, it is also possible that a more complex relationship between value and reciprocity exists. Specifically, value and reciprocity may follow an inverse "U" shape. Although some high-value resources may elicit greater rates of reciprocity because abdicating appears surprisingly generous, *extremely* high-value resources may elicit lower rates of reciprocity. That is, for resources whose value is extremely high—do you receive the kidney or do I?—people might finally cease to reciprocate. Abdication might seem surprising no matter whether the resources are highly valued or extremely highly valued, yet above some threshold, extreme stakes may also elevate self-interested motives and drive allocators to choose the better resource for themselves. Although stakes could be manipulated within hypothetical scenarios, they might be most fruitfully explored in the context of actual resources that participants would relish acquiring and feel reluctant to give away. Regardless, we speculate that people may abdicate more often when stakes are low than when stakes are high, and so the finding that abdication prompts reciprocity for low-stakes decisions may reflect many cases in which people naturally abdicate outside of the lab.

Finally, we note that allocators' expectations may not be the only determinant of whether they subsequently give away the better or worse resource. In addition, the abdicator's justification for relinquishing control may also matter. Sometimes, people might express little reason for abdicating ("You choose"), but often, abdicators might emphasize that they adopted the allocator's perspective prior to doing so ("I've thought about this, and I think you should be the one to choose"). Importantly, abdicators who convey that they first adopted the other person's perspective may seem *more* generous, and because allocators tend to reward generous acts with generous allocations, these allocators might be even more likely to reciprocate. Relinquishing control, in other words, might prompt even stronger reciprocity in many everyday settings than we observed in our experiments.

Conclusion

When people allocate resources between themselves and others, they possess at least two (seemingly) conflicting desires: The first is to form a positive reputation in the eyes of others, and the second is to gain valuable resources for oneself. People form positive reputations when they *give* whereas they gain valuable resources when they *take*, and therefore pursuing both desires at once seems to pose a dilemma whereby satisfying one desire frustrates the other. The current studies reveal that abdication may be one solution to this dilemma: People who abdicated to another individual seemed generous, and because they seemed generous, the other individual often reciprocated by giving them the better resource. Thus, unlike either giving or taking, *abdicating* often granted both reputational and material rewards. Those who abdicate, it seems, not only sow the reputational rewards of generosity, but quickly harvest the material rewards of reciprocity as well.

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Appendix

Study 1a Scenarios

Mini Golf Balls Scenario

Imagine that you and your friend decide to play mini golf. The mini golf course provides free mini golf balls, so you and your friend approach the attendant to pick up the mini golf balls. However, there are only two mini golf balls remaining and they are each slightly different: one is in very good condition whereas the other is in fair condition.

Both you and your friend see both mini golf balls as well as their conditions. Because you happen to be closer, the attendant hands both of the balls to you, so now you need to decide what to do next.

You could make one of two decisions:

1. Choose who gets which mini golf ball yourself.
2. Ask your friend to choose who gets which mini golf ball.

If you were in this situation, which of these two decisions would you make?

Gift Cards Scenario

Imagine that you and your friend book plane tickets to fly across the country. The flight is delayed overnight, and as an apology the airline promises to give gift cards to all passengers. You and your friend approach the flight attendant to claim your gift cards. The flight attendant has only two gift cards left on hand, and they are each slightly different: one has high value whereas the other has medium value, although both can be used at the same stores.

Both you and your friend see both gift cards as well as their value. Because you happen to be standing closer, the attendant gives both gift cards to you. Now you need to decide what to do next.

You could make one of two decisions:

1. Choose who gets which gift card yourself.
2. Ask your friend to choose who gets which gift card.

If you were in this situation, which of these two decisions would you make?

Raffle Tickets Scenario

Imagine that you and your friend attend an annual event at the local community center. The event includes a raffle for two tickets to a comedy show, and raffle tickets cost $1 each. You and your friend are both interested in the comedy show so you go up to the counter to buy raffle tickets.

(*Appendix continues*)

You and your friend both pay $1 to buy one raffle ticket each. However, there are only two raffle tickets left and they are each slightly different: one is highly legible whereas the other is somewhat legible with several small scratches and tears, although both tickets will be entered into the same drawing.

Both you and your friend see both raffle tickets as well as their legibility. Because you happen to be standing closer, the clerk gives both tickets to you. Now you need to decide what to do next.

You could make one of two decisions:

1. Choose who gets which raffle ticket yourself.

2. Ask your friend to choose who gets which raffle ticket.

If you were in this situation, which of these two decisions would you make?

Granola Bars Scenario

Imagine that you're walking down the street with your friend. A researcher asks you and your friend to fill out a survey in exchange for two granola bars (one for you and one for your friend). However, there are only two granola bars left and they are each slightly different: one is a premium-brand granola bar whereas the other is a store-brand granola bar, although both are the same flavor.

Both you and your friend see both granola bars as well as their brands. Because you happen to be standing closer, the researcher hands both of the granola bars to you, so now you need to decide what to do next.

You could make one of two decisions:

1. Choose who gets which granola bar yourself.

2. Ask your friend to choose who gets which granola bar.

If you were in this situation, which of these two decisions would you make?

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