

**EMPIRICAL ARTICLE** 

# Choosing more aggressive commitment contracts for others than for the self

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#### Abstract

Commitment contracts are a strategy for binding self-control failures, such as skipping a gym visit or breaking a dieting regime, to monetary penalties. Despite evidence that commitment contracts with stronger penalties improve self-control, they are relatively underused. Across 5 experiments, we find that decision makers are less likely to select commitment contracts with more severe penalties (i.e., anti-charity contracts) for themselves than they are for others. This self-other difference in contract choice arises because decision makers believe anti-charity contracts will be more effective for others than for themselves. Our results suggest that people recognize the potential effectiveness of using more aggressive commitment contracts to overcome self-control problems, but view themselves as an exception to that general rule.

Self-control failures underlie many important behavioral and societal problems. Procrastination, failure to maintain an exercise or dieting program, and inadequate retirement savings all reflect an intertemporal trade-off between short-term gratification (e.g., the pleasure of eating sugary and fatty foods) and long-term costs (e.g., a higher risk of chronic disease). The use of *commitment contracts*—voluntary arrangements decision makers enter to restrict or alter their choices, often by imposing an immediate cost on unwanted behavior—is a particularly promising self-control strategy to combat present-biased behavior (Bryan et al., 2010; Halpern et al., 2015; Volpp and Loewenstein, 2020). For example, an individual trying to exercise more frequently may commit to donating \$100 for every week they fail to visit the gym. As a result, the cost of skipping a gym visit entails both a delayed risk to long-term health and an immediate risk of losing money. Because commitment contracts impose immediate costs on succumbing to temptation, they can be more effective than other self-control techniques (Duckworth et al., 2018; Duckworth and Gross, 2020).

The use of commitment contracts can be seen as a special case of a principal-agent problem: one party (the principal) structures a set of incentives, usually through the establishment of a contract, to influence the behavior of another party (the agent) in a way that aligns incentives between the two. A canonical example is an employer who compensates an employee based on their job performance; when the company profits, so does the employee. With commitment contracts, however, the arrangement between parties is intrapersonal rather than interpersonal—the principal establishes a contract with *their future self* rather than with another party (Thaler and Shefrin, 1981).

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In this article, we examine the types of commitment contracts decision makers select for themselves, compared to the contracts they select for someone else. Central to these decisions, we argue, is a tradeoff between concerns of what is effective (i.e., strategies that will help an agent reach their goal) and what is morally inappropriate (i.e., strategies that introduce new moral risks). Put differently, some commitment contracts may force individuals to consider whether reaching their goal is worth the risk of not just wasting resources or effort, but also bringing about a morally negative outcome. For example, committing to donate \$100 to a hated organization for missing a visit to the gym may seem like an effective strategy due to the increased motivation that comes from not wanting to donate money to such a group (Gershon and Fridman, 2022). At the same time, choosing an option that allows for the possibility of a hated organization to benefit may be seen as morally questionable, especially when other options are available that do not introduce such risks. Because of these countervailing forces, it is not obvious when decision makers will choose more effective but less appropriate contracts.

Building on past research, we hypothesize that people will select more aggressive *anti-charity* contracts (i.e., forfeited stakes are donated to an organization one opposes) for others, but prefer less aggressive *pro-charity* contracts (i.e., forfeited stakes are donated to an organization one supports) for themselves. Furthermore, we identify the relative contributions of beliefs about effectiveness versus moral appropriateness in driving these decisions. Our findings have implications for people trying to achieve their own goals and for people who make decisions designed to motivate others—such as parents who set goals for their children, managers who set performance standards for employees, or politicians who set policies for their constituents. In what follows, we discuss the psychological aspects of selecting a commitment contract and how those aspects differ when choosing for oneself versus for someone else.

#### 1. Commitment contracts

Commitment contracts are associated with improved outcomes across a wide variety of health, financial, and work domains (Alsan et al., 2017; Ariely and Wertenbroch, 2002; Ashraf et al., 2006; Breman, 2011; Dupas and Robinson, 2013; Erev et al., 2022; Giné et al., 2010; Himmler et al., 2019; Kaur et al., 2015; Milkman et al., 2010; Mochon et al., 2017; Reiff et al., 2020; Royer et al., 2015; Sadoff and Samek, 2019; Savani, 2019; Schilbach, 2019; Schwartz et al., 2014; Thaler and Benartzi, 2004). For example, employees who tied their exercise goals to economic losses were over 50% more likely to visit the gym than those who did not set a commitment contract (Royer et al., 2015). Similarly, bank customers who were offered a savings account combined with a commitment contract achieved a savings rate that was 81% higher than customers who were offered a typical savings account (Ashraf et al., 2006). In the workplace, employees who used a commitment contract to meet performance targets outperformed employees who did not (Kaur et al., 2015).

Despite the effectiveness of commitment contracts, individuals appear to prefer less aggressive methods when selecting their own self-control strategies (Ariely and Wertenbroch, 2002; Augenblick et al., 2015; Bryan et al., 2010; Erev et al., 2022; John, 2020; Laibson, 2015; Rogers et al., 2014). For example, in one study, only 14% of patients at high risk of HIV infection chose a commitment contract to motivate more frequent testing (Chamie et al., 2021). In other studies, only 12% of employees at a Fortune 500 company used a commitment contract to increase exercise frequency (Royer et al., 2015), and only 11% of habitual smokers in the Philippines used a commitment contract to quit smoking (Giné et al., 2010).

The desire to hedge against penalties for self-control failures can even be seen, paradoxically, among those who voluntarily seek out a commitment contract. We analyzed 17,654 commitment contracts set on stickK.com, an online platform used to set legally binding commitment contracts.<sup>1</sup> Less than 33% of stickK users set a contract that bound their self-control failures to monetary losses. The remaining users created commitments without monetary stakes, even though users who opted for monetary penalties were 60 percentage points more likely to report successfully completing their goal. Additionally, when

<sup>&</sup>lt;sup>1</sup>See Section 6 of the Supplementary Material for full study details.

considering the types of commitment contracts chosen, those users who tied monetary penalties to an anti-charity were another 6 percentage points more likely to report successfully completing their goal relative to users who directed their donations to a supported charity or to a friend. Although stickK users select their own contracts (thereby limiting the ability to draw causal inferences), the existing evidence suggests that when setting a commitment contract for themselves, individuals avoid the very strategies most likely to be effective.

In the present research, we examine choices between pro-charity and anti-charity contracts to identify how people consider the trade-off between what is effective and what is morally appropriate when choosing a self-control strategy. While both pro-charity and anti-charity contracts entail potential monetary penalties, only anti-charity contracts entail the possible pain of donating money to a hated organization.<sup>2</sup> For this reason, anti-charity contracts may be viewed as both more effective than pro-charity contracts and also less morally appropriate. Comparing pro-charity and anti-charity contracts allows us to directly examine how participants navigate this effectiveness-appropriateness trade-off while holding monetary stakes and all other characteristics of the contract fixed, such as the type of goal or the ambitiousness of that goal.

## 2. Choosing self-control strategies for oneself versus others

The purpose of a contract is for the principal 'to protect themselves against [an agent's] future lack of willpower' (Stigler, 1966, p. 393). To do so, principals use incentives to motivate desired behavior and deter undesired behavior (Holmstrom and Milgrom, 1991; Jensen and Meckling, 1976; Ross, 1973). Principals, however, may adopt different strategies when trying to motivate their future selves rather than another person (Molouki and Bartels, 2020). For instance, imagine an anti-charity contract designed to help an employee stop procrastinating in the service of reaching an ambitious monthly sales target. We might enthusiastically adopt this motivating strategy for others, and yet be reluctant to adopt a similar strategy in our own lives. In this article, we propose that a self-other difference arises when selecting a commitment contract because decision makers navigate the trade-off between effectiveness and moral appropriateness differently when choosing for others than for themselves.

Decision makers may give less weight to concerns of moral propriety when considering contracts for others compared to themselves. For instance, individuals tend to be relatively less risk averse and anticipate experiencing less regret for poor outcomes when making decisions on behalf of others (Füllbrunn and Luhan, 2017; Kray, 2000; Polman and Wu, 2020), and the same may be true when considering moral risks (e.g., more willing to tie performance failures to donations toward a hated organization). Individuals also tend to view themselves as more ethical than others (Allison et al., 1989; Epley and Dunning, 2000) and may assume that others are less troubled by the potential downside risk of giving money to a hated organization.

Another possibility is that people may think differently about commitment contracts for others because they believe certain contracts will be more effective for other people than for themselves. Decision makers hold a host of (generally self-serving) beliefs that support this prediction, including that others are more motivated by external rewards and punishments than themselves, that other people have less agentic control over their own lives, and that others need stronger interventions to overcome self-control failures (Balcetis and Dunning, 2013; Heath, 1999; Schroeder et al., 2017). Because anticharity contracts are usually seen as a stronger external intervention than pro-charity contracts, people may believe these contracts will be more effective for others than for themselves. Thus, the existing evidence suggests that any self-other difference in contract choice could operate through differences in beliefs, differences in decision weights, or some combination of both.

<sup>&</sup>lt;sup>2</sup>To examine whether decision makers do in fact view anti-charity contracts as an especially aggressive self-control strategy, we asked 100 participants to evaluate the aggressiveness of using an anti-charity contract, a pro-charity contract, and a nonbinding commitment. Participants rated the anti-charity contract as a more aggressive goal-achievement strategy (M = 5.47, SD = 1.40) than both the pro-charity contract (M = 3.51, SD = 1.41; paired t(99) = 12.70, p < .001, d = 1.39) and the nonbinding commitment (M = 2.41, SD = 1.47; paired t(99) = 15.63, p < .001, d = 2.13).

# 3. Overview of studies

In 5 studies, we examine how decision makers choose commitment contracts for themselves versus others. We hypothesize individuals are especially likely to select anti-charity over pro-charity contracts when choosing for others, and that choosing between commitment contracts entails a trade-off between a contract's effectiveness and moral appropriateness. Specifically, we predict that people view anti-charity contracts as more effective, but less appropriate, than pro-charity contracts. Finally, we examine whether the self-other difference in contract choice can be explained by differences in beliefs about contract attributes for oneself versus others, or due to differences in how those attributes are weighted on choice. Table 1 provides an overview of our findings.

In Studies 1 and 2, we find that participants are more likely to select anti-charity contracts for others than for themselves. In Study 3, we find that participants view anti-charity contracts as more effective, but less morally appropriate, than pro-charity contracts. In Study 4, we test whether the self-other difference in contract choice can be explained by differences in beliefs versus differences in decision weights, and we find evidence supporting a belief-based account. Finally, in Study 5, we show people are less likely to select anti-charity contracts for close friends than for strangers, suggesting that psychological distance to others moderates the self-other difference in contract choice.

	Choice of contract	Effectiveness ratings		Moral appropriateness ratings	
	% Choosing anti-charity	Anti-charity	Pro-charity	Anti-charity	Pro-charity
<i>Study 1 (n</i> = 252)					
Personal	4%				
Surrogate	33%				
<i>Study 2</i> ( $n = 400$ )					
Personal	38%				
Surrogate	51%				
<i>Study 3 (n</i> = 150)					
Surrogate		5.23	4.39	2.99	5.69
		(1.79)	(1.66)	(1.53)	(1.21)
<i>Study 4</i> ( <i>n</i> = 1,001)					
Personal	39%	4.86	4.44	3.87	5.63
		(2.12)	(1.73)	(2.28)	(1.95)
Surrogate	50%	5.04	3.98	4.02	5.87
		(1.69)	(1.59)	(2.07)	(1.74)
<i>Study 5 (n</i> = 1,106)					
Personal	46%	5.14	4.25	3.10	5.68
		(2.05)	(1.72)	(1.93)	(1.51)
Surrogate-Stranger	58%	5.51	3.83	3.09	5.84
		(1.58)	(1.58)	(1.79)	(1.42)
Surrogate-Friend	45%	5.27	3.99	3.19	5.68
		(1.79)	(1.69)	(1.85)	(1.58)

**Table 1.** Contract selection rates and evaluations of effectiveness and moral appropriateness across studies.

*Note*: Selection rates for anti-charity contracts are listed in column 2. Means and standard deviations (in parentheses) of ratings of contract effectiveness and moral appropriateness are listed in columns 3–6.

#### 4. Transparent reporting

For all studies, we preregistered hypotheses, study designs, and analysis plans. In all studies, we set our sample size (always at least 50 per cell) prior to collecting any data. Study materials, data, code, and preregistration plans can be found at https://researchbox.org/65.

#### 5. Study 1

We test whether people are more likely to select an anti-charity commitment contract for another person than for themselves. For this study, we asked participants to identify single letters in paragraphs of text—a task that required sustained effort and concentration but little skill. The concentration and effort demanded by the task were designed to approximate the dynamics present in common self-control goals such as exercising or not procrastinating.

We incentivized contract choice by directly tying monetary outcomes either to the participant's own performance or to the performance of another participant. All participants received a financial endowment at the start of the study and learned that incorrect trials would result in deductions from this endowment. Participants chose, either for themselves or for the yoked participant, to bind performance to a pro-charity or anti-charity contract. This design allowed us to test for self-other differences in contract choice while holding performance incentives fixed across conditions.

#### 5.1. Method

We recruited a sample of 252 participants from Prolific Academic (52% female, mean age = 31 years, range = 18-66 years) in return for a flat cash payment and the opportunity to earn additional money based on their decisions/performance in the study.

All participants first indicated the organization they most support and most oppose from a list of 10 nonprofit organizations.<sup>3</sup> We used the organizations selected to create personally relevant pro-charity and anti-charity commitment contracts for each participant. Participants were then randomly assigned to 1 of 2 conditions. In the *personal choice* condition, participants were informed they had been given an endowment of \$2.50, and their performance on a subsequent task would determine how much of the endowment they would keep. In the *surrogate choice* condition, participants were given the same endowment but learned that their final payoff would be determined by the performance of another anonymous participant (hereafter called the 'partner') on a subsequent task.

Participants in the personal choice condition completed 10 rounds of a task in which they identified a specific letter in a block of text based on a set of coordinates (adapted from Azar, 2019). As can be seen by the example round displayed in Figure 1, performance was designed to be largely based on effort and persistence. Participants learned that for each round answered incorrectly, \$0.25 would be deducted from their endowment and donated to a designated organization (and that no money would be deducted for each round answered correctly). After reading the task instructions, participants completed a practice round to ensure they properly understood the task and then chose whether any deducted money would be donated to the organization they most support (pro-charity contract) or to the organization they most oppose (anti-charity contract). Choice of contract type serves as our primary dependent variable. After designating a charity, participants completed 10 rounds of the letter-finding task.

<sup>&</sup>lt;sup>3</sup>The list of organizations included Americans United for Life (pro-life advocacy group), NARAL Pro-Choice America First Foundation (pro-choice advocacy group), The Educational Fund to Stop Gun Violence (gun control advocacy group), The National Rifle Association Foundation (gun rights advocacy group), Nature Conservancy (environmental conservation advocacy group), The National Center for Public Policy (anti climate-change initiatives advocacy group), The House Majority PAC (political action committee that supports the Democratic Party), American Crossroads (political action committee that supports the Republican party), Gay & Lesbian Advocates and Defenders (same-sex marriage advocacy group), and The National Organization for Marriage (traditional marriage advocacy group). We based our list of organizations on those used on stickK.com.

Please identify the letter in line 16, position 12:

jfsjqrchonxzezwademicjfviewprocyxshasjfceyxtojfturnxzeirjfportsjfvisiontima ivedincifasedattentionifcentlyindeedxzejfvieexzetimekvtweenxzefirstediton wprocyxsisanimportantifsjgrchtopickvcauseisionandxzezwceptanceofxzjgrtireew gaininginsightsaboutxzyxtifngxzsandxzewigclexzistimerangyxfromzeroifxzigtrf knyxsyxofxzeprocyxscanhelpuschangexzeprmmediatelywixzoutchangyxtosev ocyxsinainsightsaboutxzyxtjfngxzsandxzefddyxxzetimeittakyxxzjquxzortojfvisexze kvneficialwayjfsjqrchaboutxzjqdvantagyxofdoptasicationsandxzyxeimplicationsajfo ublelivjqlargeeffectonhowmuchprogjfssgrowxfgjfatimpowellasxzetimeitta zeconomistsmakexzeyalsoaffectxzeproductivitkyxjffejfyxandjfviewxzeoptimalp yofalloxzersocialandnaturalscientistsonecouldaymenttojffejfyxandsimilarissuyxcligrly xzusarguexzatxzeyajfanevenmojfimportantifsjqmplicationsandxzyxeimplicationsajfof rchtopioneofxzeimportantaspectsofxzejfviewprhaspolicyigjfatimportancekvcausexze ocyxsisxzedelayinxzedisseminationofnewijfsjqryaffectxzeproductivityofallzwdem chwhichcankvmjqsujfdbyxzetimeittakyxanarticaicsxzecurjfnteditorofeconometricaglenn lefroneofxzeimportantaspectsofxzejfviewldfjadonmakconsequencyxforhumanwelfajfinvo mfirstsubmissiontokvingpublishedijffertoxzistimyxasimilarpoinxzecityxlucaswh igsxzepublicationdelavxzistimecankvdividedtofoowxzxzeconsequencvxforhumanw urstagyxjfjectionanjfvisiontimexzetimekvtweenxyxtionslikexzyxjqjfsimplystaggeringo zyxubmissionofamanuscripttoxzefirstjournalastoxzinkaboutxzemitishardtoxzink nditssubmissiontoxzejournalxzateventuallypuelseellisonxzenaddsjournaljfviewp blishyxitxzistimeincludyxboxzxzetimeinxzejfeditorstoevaluatexzejfsubmissionxzejfvisio viewproceditorsspendfindingjffejfyxandleryrayincludemojfxzanoneroundo yxsofxzejournalsxzatifiectitandxzetimeittakyxmmpiricalignditszwtualpublicationinpri exzatx zee ditors spend finding iffe j fyx and later j fzwnals for xz coming article delay xz et with the two sets of two sets ohingeditorialdecisionandxzetimeittakyxxzejffejftudiyxaboutxzedelaycausedbyxzejfvi

Figure 1. Letter-finding task used in Study 1.

Participants in the surrogate choice condition read a similar set of instructions, but were also told that their partner had indicated their most supported and most opposed nonprofit organizations at the beginning of the study, and that participants would choose whether their partner's performance was tied to an anti-charity or pro-charity contract (and their partner would be informed of this decision before starting the task).<sup>4</sup> After selecting a commitment contract for their partner, participants in the surrogate choice condition also completed the same 10 rounds of the letter-finding task but were explicitly told their performance would not impact their endowment.<sup>5</sup>

To determine payoffs in the surrogate choice condition, participants were assigned partners from a satellite condition (n = 86) who had completed 10 rounds of the letter-finding task after being randomly assigned to complete the task under either a pro-charity or an anti-charity contract. For instance, if the participant in the main study chose to have their partner complete the task under a pro-charity contract, their bonus payment was yoked to the performance of a randomly selected participant from the pro-charity condition of this hold-out group (see Section 2.1 of the Supplementary Material for a full description of the methods and results used in the satellite condition).

Upon completing the 10 letter-finding rounds, participants answered a manipulation check where they reported, on 7-point scales, their attitudes toward their pro-charity and anti-charity organizations ( $-3 = strongly \ oppose$  to  $3 = strongly \ support$ ). All participants were then given feedback about their

<sup>&</sup>lt;sup>4</sup>To keep potential monetary gains and losses to organizations constant across conditions, participants in the surrogate choice condition were informed that any earnings they lost would be, unlike their partner, simply forfeited and returned to the experimenters.

<sup>&</sup>lt;sup>5</sup>Because participants' own performance in the surrogate choice condition was not incentivized, we use their performance as a baseline measure to compare the effect of incentives on letter-finding performance. See Section 2.2 of the Supplementary Material for a full analysis of this issue.

performance (and their partner's performance, for those in the surrogate choice condition) and received the remainder of their endowment.

# 5.2. Results

As a manipulation check of the organizations used to populate the pro-charity and anti-charity contracts, participants reported greater support for their pro-charity organizations (M = 2.48, SD = 1.00) than for their anti-charity organizations (M = -2.50, SD = 1.21; paired t(251) = 41.24, p < .001, d = 2.60).

Our primary hypothesis concerns choice of commitment contract across conditions.<sup>6</sup> As expected, participants were more likely to select an anti-charity contract for another person (33%) than for themselves (4%; z = 5.96, p < .001). Even though performance incentives were equivalent across conditions, participants were over 8 times more likely to select an anti-charity contract when making surrogate decisions than when choosing for themselves.

#### 5.3. Discussion

We find a pronounced self-other difference in willingness to choose anti-charity commitment contracts, whereby participants were more willing to choose an anti-charity contract for another person than for themselves, even when incentives for performance were matched across both settings.

Although not central to our hypothesis, it is worth noting that we also find suggestive (but not conclusive) evidence that anti-charity contracts are more motivating than pro-charity contracts. When restricting our analysis to the personal choice condition, participants who selected an anti-charity contract answered more rounds correctly (M = 6.40, SD = 3.21; n = 5) than did participants who selected pro-charity contracts (M = 5.51, SD = 3.44; n = 120), though this difference was not statistically significant (t(4) = 0.61, p = .574, d = 0.27). Similarly, for task persistence (operationalized as average time spent per round, in seconds) participants who selected anti-charity contracts spent more time per round (M = 88.24, SD = 35.32) than did participants who selected pro-charity contracts (M = 65.40, SD = 45.40, but again this difference was not statistically significant (t(4) = 1.40, p = .226, d = 0.56). Although statistical power was severely limited (because only 5 participants chose to tie their own performance to an anti-charity contract), participants who chose an anti-charity contract completed more rounds and earned larger bonuses. As discussed in Section 2.1 of the Supplementary Material, we also observe a similar pattern of results when examining performance in the satellite condition, where we exogenously imposed on participants (rather than allowing them to self-select) a pro-charity or anti-charity contract. These preliminary results suggest that contract type may have a causal effect on performance.

# 6. Study 2

In Study 2, we test the self-other difference in contract choice using a more naturalistic context than in Study 1, namely contract choices for New Year's resolutions.

#### 6.1. Method

We recruited 400 participants (55% female, mean age = 37 years, age range = 18-76 years) on December 31, 2020, and requested only individuals who had recently set a New Year's resolution take part in the study. Participants first selected the option that best described their resolution (from a list of 8 options, such as a resolution to exercise more or to quit smoking) and then used an open-ended text box to describe their resolution in detail. We then randomly assigned participants to imagine they or

<sup>&</sup>lt;sup>6</sup>In Section 1 of the Supplementary Material, we report contract choice results for all relevant studies when statistically controlling for the particular organization(s) selected by participants.

another person (who had set the same resolution) were considering a pro-charity or anti-charity contract to help stick to their resolution. Participants were given a brief explanation of commitment contracts and then made a hypothetical choice between the contracts either for themselves or for another person.

# 6.2. Results

Similar to Study 1, participants were more likely to select an anti-charity contract for another person (51%) than to choose one for themselves (38%; z = 2.74, p = .006).

# 6.3. Discussion

As in Study 1, individuals are more likely to choose an anti-charity contract for others than for themselves. In Study 2, we find that this self-other difference extends to recommendations (rather than choices that explicitly impact one's own monetary payoffs) and applies to a variety of self-control-related goals such as attempting to exercise more or to quit smoking.

# 7. Study 3

We next examine why individuals are more likely to select an anti-charity contract for others than for themselves. In Study 3, participants read about a person who set either a pro-charity or anticharity contract, and then rated this person's decision in terms of its expected effectiveness and moral appropriateness. We hypothesized that anti-charity contracts would be rated as more effective, but less morally appropriate, than pro-charity contracts.

# 7.1. Method

We recruited a sample of 150 participants from Prolific Academic (79% female, mean age = 26 years, age range = 18-63 years) to participate in return for a flat cash payment. All participants read a scenario of a person named John who had made a resolution to lose weight by exercising 3 times a week and was considering 2 options to help reach his goal. One option represented a generic pro-charity contract ('donate \$100... to an organization he personally supports every time he fails to exercise 3 times within a week') and the other option represented a generic anti-charity contract ('donate \$100... to an organization he personally supports every times a times within a week'). The order of the 2 options was counterbalanced across participants.

Participants rated on 7-point scales (1 = not at all to 7 = extremely) how effective and how motivating it would be to use each type of contract, which we averaged to create indices of effectiveness (Spearman–Brown inter-item reliability was .91 for the pro-charity contract and .91 for the anti-charity contract). Using the same 7-point scales, participants also rated how morally appropriate and how immoral (reverse-coded) each contract option was, which we averaged to create indices of moral appropriateness (Spearman–Brown inter-item reliability was .37 for the pro-charity contract and .70 for the anti-charity contract).

# 7.2. Results

We conducted a 2 (contract: pro-charity vs. anti-charity) × 2 (rating: effectiveness vs. appropriateness) repeated-measures analysis of variance and found an interaction consistent with an effectiveness-appropriateness trade-off (F(1,149) = 190.76, p < .001). As expected, participants rated anti-charity contracts as more effective (M = 5.23, SD = 1.79) than pro-charity contracts (M = 4.39, SD = 1.66; paired t(149) = 3.92, p < .001, d = 0.32). At the same time, participants rated anti-charity contracts as less morally appropriate (M = 2.99, SD = 1.53) than pro-charity contracts (M = 5.69, SD = 1.21; paired t(149) = 14.85, p < .001, d = 1.21).

#### 8. Study 4

The results of Study 3 suggest people view anti-charity contracts as more effective, but less morally appropriate, than pro-charity contracts. In Study 4, we test 2 possible (nonexclusive) mechanisms that may explain the observed self-other difference in contract choice. In particular, we test whether participants (i) weigh commitment contract attributes differently when deciding for themselves versus someone else, or (ii) hold different beliefs about commitment contracts for themselves versus someone else.

According to a decision weighting account, individuals weigh effectiveness and/or moral appropriateness considerations differently when contemplating a commitment contract for themselves than for another person. For instance, individuals tend to make riskier decisions when choosing for others than for themselves (Füllbrunn and Luhan, 2017; Polman and Wu, 2020), potentially because they give less weight to downside risk when making surrogate decisions. Similarly, people may be more willing to accept the moral risk associated with using an anti-charity contract (i.e., potential donations to a hated organization) for another person than when choosing for others (Kray, 2000). Decision makers may also give greater weight to pragmatic considerations, such as the effectiveness of a contract, when choosing for others than themselves (Stone et al., 2013; Stone and Allgaier, 2008; Sun et al., 2021). Similarly, individuals tend to view others as less ethical than themselves (Allison et al., 1989; Epley and Dunning, 2000) and may be relatively less concerned with the moral inappropriateness of an anti-charity contract when choosing for others.

Alternatively, the self-other gap in contract choice may arise because decision makers hold different beliefs about how contracts influence other people compared to themselves. People generally hold self-serving beliefs, several of which suggest decision makers would view anti-charity contracts as more effective for others than for themselves. For instance, people tend to believe others are especially likely to be motivated by external rewards and punishments (Heath, 1999). Decision makers also tend to believe they have more agentic control over their lives than others do, and therefore may not need the stronger incentives or interventions that others need to engage in desired behavior (Balcetis and Dunning, 2013; Schroeder et al., 2017; Scott and Williams, 2022). In terms of commitment contracts, people may expect that aggressive anti-charity contracts are more likely to be necessary for others to overcome self-control issues.

In Study 4, we simultaneously test both accounts (differential decision weights vs. differential beliefs) by linking ratings of a contract's effectiveness and moral appropriateness to contract choice. A decision weighting account would predict that the self-other discrepancy arises from differences in how strongly effectiveness or appropriateness ratings predict contract choice for oneself versus another person. Thus, according to this account, the target of the contract (self vs. other) should statistically *moderate* the relationship between rated effectiveness/appropriateness and contract choice. Alternatively, a belief-based account would suggest that individuals rate effectiveness or appropriateness differently for another person than for themselves, and it is differences in beliefs that drive the self-other discrepancy in contract choice. Thus, according to this account, self-other differences in contract choice should be statistically *mediated* by ratings of effectiveness/appropriateness.

# 8.1. Method

We recruited 1,001 participants from Amazon Mechanical Turk (49% female, mean age = 41 years, age range = 18-93 years) to participate in return for a flat cash payment. All participants indicated the nonprofit organization they most support using the same procedure as Study 1. The selected organization was used as the participant's pro-charity option and an organization with a mission opposite to that of their supported charity was used as the anti-charity option. For instance, if a participant chose The Educational Fund to Stop Gun Violence as the organization they most support, then the National Rifle Association Foundation (NRA) was used as the participant's anti-charity.

We randomly assigned participants to either a personal choice or surrogate choice condition. In the personal choice condition, participants imagined they made a commitment to exercise 3 times a week and then chose either a pro-charity contract or anti-charity contract for themselves. In the surrogate choice condition, participants read about another individual who had made a commitment to exercise 3 times a week and then chose either a pro-charity contract or anti-charity contract for this person. We used the same pro-charity and anti-charity organizations participants selected, and the instructions indicated that this other person also strongly supported and opposed these organizations, respectively.

Next, all participants evaluated both the anti-charity and the pro-charity contracts. Participants responded to 3 items assessing the effectiveness of using each contract: (i) how effective the contract would be at helping [them/the other person] keep their commitment to exercise 3 times each week; (ii) how likely [they/the other person] would be to keep their commitment, and (iii) how successful [they/the other person] would be in keeping their commitment (all items measured from 1 = not at all to 7 = extremely). Participants also responded to 3 items assessing the moral appropriateness of using each contract: (i) how morally inappropriate would it be for [them/the other person] to use the contract; (ii) how morally negative were the potential consequences of using the contract, and (iii) how unethical it would be for [them/the other person] to take the risks associated with using the contract (all items measured from 1 = not at all to 7 = extremely). To maintain consistency across studies, we reverse-coded the appropriateness items so that smaller values indicate participants viewed the contract as less appropriate. For each contract, we averaged the 3 effectiveness items (Cronbach's  $\alpha$  was .97 for the pro-charity contract and .93 for the anti-charity contract).

We counterbalanced whether participants first selected a contract and then evaluated the different contracts, or first evaluated the contracts and then selected a contract. We also counterbalanced across participants whether pro-charity or anti-charity contracts were presented first on each page, as well as whether participants first rated each contract in terms of its effectiveness or appropriateness. At the end of the study, participants reported their support for their pro-charity and anti-charity organizations using the same questions from Study 1.

#### 8.2. Results

As a manipulation check, participants reported greater support for their pro-charity organization (M = 2.21, SD = 1.18) than their anti-charity organization (M = -1.95, SD = 1.78; paired t(1,000) = 53.25, p < .001, d = 1.68).

Replicating the basic self-other difference in contract preference from Studies 1 and 2, participants were more likely to select an anti-charity contract for another person (50%) than for themselves (39%; z = 3.46, p < .001). Pooling across the personal and surrogate choice conditions, we replicate the findings from Study 3 that anti-charity contracts were rated as more effective (M = 4.94, SD = 1.92) than pro-charity contracts (M = 4.22, SD = 1.68; paired t(1,000) = 9.17, p < .001, d = 0.29), but also as less morally appropriate (M = 3.95, SD = 2.18) than pro-charity contracts (M = 5.75, SD = 1.85; paired t(1,000) = 19.92, p < .001, d = 0.63).

#### 8.2.1. Mechanism test: Decision weighting

Next, we examine our 2 proposed mechanisms (differences in decision weights vs. differences in beliefs) to explain the observed self-other difference in contract choice. First, looking at decision weighting, we examine whether effectiveness and/or moral appropriateness ratings differentially predict contract choice for oneself versus another person. For each participant, we calculated difference scores<sup>7</sup> for effectiveness across contract types (i.e., effectiveness<sub>anti-charity</sub> – effectiveness<sub>pro-charity</sub>) and

<sup>&</sup>lt;sup>7</sup>In line with our preregistered analysis plan, we use difference scores across contract types. In the Supplementary Material, we report a similar analysis where we regress contract choice onto separate effectiveness and appropriateness indices rather than on difference scores, and we find similar results. See Section 4.2 of the Supplementary Material for details.

	(1)	(2)	(3)	(4)
Surrogate choice	0.109***	0.101**	0.029	0.018
	(0.031)	(0.038)	(0.027)	(0.033)
Moral appropriateness		0.020**		0.019**
		(0.007)		(0.006)
Effectiveness			0.096***	0.096***
			(0.006)	(0.006)
Surrogate Choice x moral appropriateness		-0.005		-0.007
		(0.011)		(0.010)
Surrogate Choice x effectiveness			0.017	0.017
			(0.009)	(0.009)
Intercept	0.387***	0.422***	0.348***	0.381***
	(0.022)	(0.026)	(0.019)	(0.022)
Adjusted $R^2$	.011	.019	.288	.295
Average Marginal Effects				
Self: <i>b</i> <sub>appropriateness</sub>		0.020**		0.019**
		(0.007)		(0.006)
Other: $b_{appropriateness}$		0.015		0.011
		(0.008)		(0.007)
Self: $b_{\text{effectiveness}}$		× /	0.096***	0.096***
			(0.007)	(0.007)
Other: $b_{\text{effectiveness}}$			0.113***	0.113***
			(0.008)	(0.008)

Table 2. Study 4 moderation results.

*Note:* Each model reports the results of a linear probability model, with robust standard errors in parentheses. The dependent variable in all models is choice of commitment contract (0 = pro-charity, 1 = anti-charity). 'Surrogate choice' indicates whether participants were assigned to choose a commitment contract for themselves or for another person (0 = personal, 1 = surrogate). 'Moral Appropriateness' represents the difference between ratings of moral appropriateness for anti-charity and pro-charity contracts (appropriate<sub>anti-charity</sub> – appropriate<sub>pro-charity</sub>). 'Effectiveness' represents the difference between ratings of effectiveness for anti-charity and pro-charity contracts (effective<sub>anti-charity</sub> – effective<sub>pro-charity</sub>). Wodels 2–3 include interaction terms between surrogate choice and difference scores. For Models 2–4, we decompose the interaction terms by reporting the average marginal effects (i.e., simple slopes) for each difference score by condition. Significance levels: \*p < .05, \*\*p < .01, \*\*\*p < .001.

moral appropriateness across contract types (i.e., appropriateness<sub>anti-charity</sub> – appropriateness<sub>pro-charity</sub>). Higher scores would indicate that participants found anti-charity contracts to be relatively more effective or more morally appropriate than pro-charity contracts. Using a linear probability model, we regressed contract choice onto a dummy variable for the surrogate-choice condition, difference scores in effectiveness and appropriateness, and the interactions between condition and difference scores.<sup>8</sup> All models also included robust standard errors.

Results are displayed in Table 2. Model 1 represents our baseline model with no interaction terms. Model 2 reports the degree that moral appropriateness ratings are weighted differently across conditions (reflected by the interaction term), and Model 3 reports the same analysis for effectiveness ratings. Model 4 reports the results when interaction terms for both moral appropriateness and effectiveness are included. For all specifications, we fail to find reliable differences in decision weights across conditions

<sup>&</sup>lt;sup>8</sup>For Tables 2 and 3, we report results using a linear probability model rather than a logit model, as coefficients from the linear probability model are easier to interpret. As reported in Section 4.3 of the Supplementary Material, we find virtually identical results when using logit models. For all mediation tests using logit models, we also adjusted the analysis procedure to account for potential scaling confounds that can arise when comparing different models using binary choice data (Karlson et al., 2012).

	(1)	(2)	(3)	(4)
Surrogate choice	0.109***	0.110***	0.042	0.044
	(0.031)	(0.031)	(0.027)	(0.027)
Moral appropriateness		0.018**		0.016**
		(0.005)		(0.005)
Effectiveness			0.104***	0.104***
			(0.004)	(0.004)
Intercept	0.387***	0.418***	0.344***	0.372***
	(0.022)	(0.024)	(0.019)	(0.021)
Adjusted $R^2$	.011	.020	.287	.294
Indirect Effects				
Moral appropriateness		-0.002		-0.001
Effectiveness		[-0.010, 0.004]	0.067 [0.033, 0.100]	[-0.009, 0.004] 0.067 [0.033, 0.100]

Table 3. Study 4 mediation results.

*Note:* Each model reports the results of a linear probability model, with robust standard errors in parentheses. The dependent variable in all models is choice of commitment contract (0 = pro-charity, 1 = anti-charity). 'Surrogate choice' indicates whether participants were assigned to choose a commitment contract for themselves or for another person (0 = personal, 1 = surrogate). 'Moral Appropriateness' represents the difference between ratings of moral appropriateness for anti-charity and pro-charity contracts (appropriate<sub>anti-charity</sub> – appropriate<sub>pro-charity</sub>). 'Effectiveness' represents the difference between ratings of effectiveness for anti-charity and pro-charity and pro-charity contracts (effective<sub>anti-charity</sub> – effective<sub>pro-charity</sub>). Models 2–4 also display indirect effects, with bootstrapped bias-corrected and accelerated confidence intervals (using 10,000 resamples) in brackets. Significance levels: \*p < .05, \*\*p < .01, \*\*\*p < .001.

(i.e., no significant interaction effects). For example, looking at the average marginal effects in Model 4 at the bottom of Table 2, we see that effectiveness ratings were roughly as predictive of contract choice when choosing for oneself (b = 0.096, SE = 0.007, p < .001) as when choosing for another person (b = 0.113, SE = 0.008, p < .001). Similarly, moral appropriateness ratings were roughly as predictive when choosing for oneself (b = 0.019, SE = 0.006, p < .001) as when choosing for another person (b = 0.012, SE = 0.007, p < .001). Thus, self-other differences in contract choice do not appear to be driven by differences in how contract attributes are weighted for oneself versus for another person.

#### 8.2.2. Mechanism test: Different beliefs

Next, we examine a belief-based account by testing whether self-other differences in evaluations of contract attributes mediate the self-other difference in contract choice. Table 3 depicts the results. Model 1 represents our baseline model with no mediators. Model 2 adds moral appropriateness ratings to the regression, whereas Model 3 adds effectiveness ratings. Model 4 includes both moral appropriateness and effectiveness ratings. Compared to the baseline specification in Model 1, including appropriateness ratings leads to a meaningful reduction in the size of the coefficient for the surrogate choice condition, which is no longer statistically significant. Furthermore, when compared to the baseline specification, including effectiveness ratings substantially increases model fit (adjusted  $R^2$  increases from .011 to .287). Thus, differences in effectiveness ratings appear to statistically explain the self-other difference in contract choice.

To formally test for mediation, we conducted a path model with contract choice as the dependent variable, surrogate choice as the independent variable, and difference scores for moral appropriateness and effectiveness ratings as separate mediator variables. We calculated indirect effects using bootstrapped standard errors based on 10,000 resamples and report bias-corrected and accelerated confidence intervals (CI) in brackets. Consistent with the results of Table 3, we find a significant indirect effect for effectiveness ratings (b = 0.067, 95% CI = [0.033, 0.100]) but no significant indirect effect for appropriateness ratings (b = -0.001, 95% CI = [-0.009, 0.004]). Additionally, differences in effectiveness ratings across the conditions account for over 70% of the observed self-other difference in contract choice whereas differences in moral appropriateness ratings<sup>9</sup> account for under 2%.

# 8.3. Discussion

In addition to replicating our finding that participants choose anti-charity contracts more frequently for others than for themselves, we find support for a belief-based account of the self-other difference in contract choice. Participants believe anti-charity contracts are relatively more effective, and pro-charity contracts are relatively less effective, when deciding for someone else compared to when deciding for themselves. Differences in beliefs about contract effectiveness statistically mediate the difference in contract choice.

# 9. Study 5

In Study 4, we find that people believe anti-charity contracts are more effective for others than for the self, raising the question of why people hold such beliefs. One possible explanation is that, due to differences in psychological distance (Liberman et al., 2007; Polman et al., 2018), people have more information about themselves than they have about others. As a result, people tend to reason and decide for others in simplified terms (Jung et al., 2020; Miller and McFarland, 1987; Waytz et al., 2014). For example, individuals may believe anti-charity contracts are especially effective for others because they fail to appreciate the situational constraints that limit behavior even when strong incentives are present, but are acutely aware of such constraints on their own behavior (Jones and Nisbett, 1971). Due to this information gap, individuals may be especially prone to think in terms of simplified inputs and outputs when selecting commitment contracts for others (e.g., 'setting a more aggressive commitment contract will invariably improve self-control').

In Study 5, we exploit natural variation in psychological distance by asking participants to select a commitment contract either for themselves, for a stranger, or for a close friend (Aron et al., 1991; Faro and Rottenstreich, 2006; Kim et al., 2013; Sun et al., 2021). If individuals are especially likely to view anti-charity contracts as effective for others because those individuals are psychologically distant from oneself, then we should expect the self-other difference in contract choice to largely disappear when choosing contracts for close others.

#### 9.1. Method

We recruited 1,106 participants from Prolific Academic (47% female, mean age = 34 years, age range = 18-76 years) to participate in return for a flat cash payment.<sup>10</sup> The design was similar to Study 4, except participants were now randomly assigned to select a commitment contract for either themselves

<sup>&</sup>lt;sup>9</sup>In Section 4.4 of the Supplementary Material, we perform an additional statistical test that simultaneously compares the decision-weighting and belief-based accounts, namely a Kitagawa–Blinder–Oaxaca decomposition (Blinder, 1973; Kitagawa, 1955; Oaxaca, 1973). This technique, commonly used in labor economics, decomposes mean differences in an outcome into those due to differences in mean values of an independent variable across groups (e.g., self-other differences in effectiveness beliefs) versus group differences in the predictiveness of those coefficients (e.g., self-other differences in decision weights). Using this technique, we find results consistent with those reported above—the self-other gap in contract choice is almost exclusively explained by self-other differences in beliefs about effectiveness.

<sup>&</sup>lt;sup>10</sup>We omit 97 participants based on our preregistered exclusion criteria: (i) participants who failed two comprehension checks (n = 96), or (ii) participants in the friend condition who did not submit initials between 1 and 3 letters (n = 1). The sample size

(personal choice condition), a stranger named Sharon (other choice condition), or a close friend (friend choice condition).<sup>11</sup> The personal and other choice conditions were identical to those in Study 4. In the friend choice condition, before participants chose a contract, they were asked to think of a close friend and to write the initials of that person. Participants in this condition then read a scenario imagining their close friend had made a resolution to lose weight and were asked to select a commitment contract for this friend.

After choosing a commitment contract, all participants evaluated pro-charity and anti-charity contracts in terms of their effectiveness and moral appropriateness, both of which were measured using single items from 1 = not at all to 7 = extremely. Finally, participants responded to the same manipulation check used in the previous studies.

# 9.2. Results

As a test of the manipulation, participants across conditions reported greater support for their procharity organization (M = 2.27, SD = 0.97) than anti-charity organization (M = -1.98, SD = 1.69; paired t(1,105) = 62.56, p < .001, d = 1.88).

Contract choice reliably differed across conditions ( $\chi^2(2, N = 1,106) = 14.77, p < .001$ ). As expected, participants were more likely to select an anti-charity contract for Sharon (58%) than for themselves (46%; z = 3.23, p = .001) or for a close friend (45%; z = 3.41, p < .001). Furthermore, there was no statistically significant difference in contract choice when choosing for oneself versus for a close friend (z = 0.19, p = .850).

When pooling across conditions, we replicate the basic effectiveness-appropriateness trade-off between contract types. Participants viewed anti-charity contracts as more effective (M = 5.31, SD = 1.82) than pro-charity contracts (M = 4.02, SD = 1.67; paired t(1,105) = 15.00, p < .001, d = 0.74) and also viewed anti-charity contracts as less morally appropriate (M = 3.12, SD = 1.86) than pro-charity contracts (M = 5.73, SD = 1.50; paired t(1,105) = 32.35, p < .001, d = 1.55). Importantly, ratings of contract effectiveness differed less when thinking about a close friend than when thinking about a generic other person. As displayed in Table 4, participants viewed anti-charity contracts as more effective for Sharon than for themselves (t(719) = 3.79, p < .001, d = 0.28). By contrast, the difference in effectiveness ratings when choosing for oneself versus a close friend was smaller and only marginally significant (t(725) = 1.84, p = .066, d = 0.14). Thus, effectiveness ratings roughly follow the pattern we observe across conditions for contract choices. Table 4 also displays that there were no significant differences in moral appropriateness ratings across the 3 conditions (all *p*-values are greater than .150).

Lastly, we test whether differences in beliefs across conditions statistically mediate the self-other gap in contract choice. In line with our preregistered analysis plan, we first pooled across the personal choice and friend choice conditions (0 = personal/friend, 1 = other) and then performed the same mediation analysis as in Study 4, with moral appropriateness and effectiveness scores as separate mediator variables. Consistent with the results from Study 4, we find a reliable indirect effect for effectiveness (b = 0.065, 95% CI = [0.028, 0.102]), but no reliable indirect effect for moral appropriateness (b = -0.005, 95% CI = [-0.014, 0.002]). Differences in effectiveness ratings across the conditions account for over 60% of the self-other difference whereas differences in moral appropriateness ratings<sup>12</sup> accounts for under 6%.

and descriptive statistics reported in Study 5 do not include these participants. The pattern of results and significance levels do not change when omitted participants are included in the analysis.

<sup>&</sup>lt;sup>11</sup>In a separate study (n = 80), we confirmed that participants viewed a stranger named Sharon as more psychologically distant from oneself (M = 6.59, SD = 2.64) than was a close friend (M = 2.63, SE = 1.50; t(78) = 8.18, p < .001, d = 1.85).

<sup>&</sup>lt;sup>12</sup>Similar to Study 4, we also jointly tested the decision weighting and belief-based accounts using a Kitagawa–Blinder– Oaxaca decomposition. Using this approach, we find results consistent with those reported above—differences in contract choice across conditions are largely explained by differences in beliefs about effectiveness. For full details, see Section 5.3 of the Supplementary Material.

	Condition ( <i>M</i> [ <i>SD</i> ])			Pairwise comparisons (Difference scores)		
	Personal	Friend	Other	Personal minus friend	Friend minus other	Personal minus other
Appropriateness <sub>anti-charity</sub>	3.10 (1.93)	3.19 (1.85)	3.09 (1.79)	-0.09	0.10	0.01
Appropriateness <sub>pro-charity</sub>	5.68 (1.51)	5.68 (1.58)	5.84 (1.42)	-0.00	-0.16	-0.16
Difference in moral appropriateness	-2.59 (2.84)	-2.50 (2.73)	-2.74 (2.48)	-0.09	0.24	0.15
Effectiveness <sub>anti-charity</sub>	5.14 (2.05)	5.27 (1.79)	5.51 (1.58)	-0.13	-0.24	-0.37**
Effectiveness <sub>pro-charity</sub>	4.25 (1.72)	3.99 (1.67)	3.83 (1.58)	0.26*	0.16	0.42***
Difference in effectiveness	0.89 (3.06)	1.28 (2.79)	1.68 (2.64)	-0.39	-0.40*	-0.79***

Table 4. Ratings of effectiveness and appropriateness across conditions.

*Note:* Columns 2–4 display means and standard deviations, whereas columns 5–7 display differences scores. Effectiveness and moral appropriateness were measured using 7-point scales (1 = *not at all*, 7 = *extremely*). Difference scores were calculated as appropriateness<sub>anti-charity</sub> – appropriateness<sub>pro-charity</sub> and effectiveness<sub>anti-charity</sub> – effectiveness<sub>pro-charity</sub>. Significance levels: \*p < .05, \*\*p < .01, \*\*p < .01.

# 9.3. Discussion

The results of Study 5 are consistent with the hypothesis that individuals are more likely to select anti-charity contracts for others who are more psychologically distant (i.e., a generic stranger). When individuals were asked to choose a commitment contract for someone whom they know well (i.e., a close friend), the self-other difference in contract choice largely disappeared. Furthermore, individuals were especially likely to view anti-charity contracts as effective for a stranger, but this heightened belief about contract effectiveness was reduced when thinking about a close friend.

An alternative, though related, explanation for why people make different decisions for close friends than for strangers is the presence of an empathy gap (Loewenstein, 1996). People often underpredict the emotional responses others will have to negative experiences, but more so for strangers than for close friends (e.g., Faro and Rottenstreich, 2006). Thus, decision makers might be more inclined to select an anti-charity contract for others because they think potentially forfeiting money to a hated organization will not be as painful for a stranger as it would be for themselves or for a close friend. However, the data in Studies 4 and 5 do not support this account. First, an empathy gap explanation suggests that anti-charity contracts should be less effective for strangers than for the self because self-control failures would be perceived to be less psychologically painful for strangers (and therefore less motivating). Our data show the opposite result: anti-charity contracts were seen as especially effective for strangers. Second, an empathy gap explanation would be more consistent with a decision weighting account, because the decision maker should care less about moral appropriateness for strangers than for the self or a close friend. Again, our data are inconsistent with this account—in both Studies 4 and 5, decision weights did not reliably differ across conditions.

#### 10. General discussion

Across 5 studies, we observe a self-other gap in choice of commitment contracts. Participants were more likely to choose an anti-charity contract for another person than for themselves. This self-other difference arises due to the belief that anti-charity contracts are more effective for others than for the self. Finally, these differences largely disappear when selecting contracts for someone whom the decision maker knows well (i.e., a close friend), suggesting that the self-other difference depends on the psychological distance of the target to the decision maker.

#### 10.1. Contributions and implications

The literature on commitment contracts has largely focused on contract efficacy, with little work exploring the psychological processes underlying how contracts are ultimately selected (for exceptions, see Exley and Naecker, 2017; Kristal and Zlatev, 2021). We conceptualize choosing a commitment contract for the self as an intrapersonal principal-agent problem, and by contrasting those decisions with decisions made for others (i.e., an interpersonal principal-agent problem), we find that individuals may excessively hedge when choosing a self-control strategy. Excessive hedging may occur partly because decision makers believe more aggressive commitment contracts are less effective for themselves than for others. This suggests that future interventions meant to increase the uptake of more aggressive commitment contracts may benefit by focusing on shifting beliefs about relative effectiveness, rather than focusing on trying to make aggressive contracts more morally acceptable. We encourage the testing of such interventions as an avenue for future research.

Our work also contributes to the literature on self-other decision making by identifying a systematic difference in how people think about themselves versus others in the domain of self-control. We test 2 explanations of self-other differences—differential beliefs versus differential weighting of attributes on choice—and find evidence in favor of differential beliefs. Our findings are consistent with prior work suggesting that individuals believe they have more agentic control over their own lives than do others, and that others are more motivated by external rewards and punishments (Balcetis and Dunning, 2013; Heath, 1999). As a result, people may be more willing to endorse paternalistic strategies for others but eschew the same strategies for themselves (Schroeder et al., 2017; Scott and Williams, 2022).

In addition to intrapersonal self-control decisions, our findings have implications for managers and other choice architects who set goals or policy to motivate others. Our results suggest that choice architects may be more willing to set aggressive incentive schemes than what the targets of such choice architecture would be willing to choose for themselves, leading to potential dissatisfaction or reactance against what the targets view as excessively punitive contracts (Volpp and Galvin, 2014). Managers and policymakers may wish to take precautions to avoid overstepping when setting goals and incentives for others.

#### 10.2. Limitations and future directions

In our studies, participants were constrained to make decisions between pro-charity and anti-charity contracts. In addition to simplifying the contract selection process by holding other contract features constant (such as the amount of money on the line, or the length of the contract), comparing pro-charity to anti-charity contracts is theoretically informative because it directly pits effectiveness considerations against moral appropriateness. However, we recognize that in many self-control decisions actors and advisors have numerous alternative strategies at their disposal that do not involve the use of commitment contracts. Future research may wish to investigate the extent to which our findings extend to self-control strategies beyond pro-charity and anti-charity contracts.

The present work also focused on how the contract selection process is affected by whom those contracts are selected for (oneself vs. another person). However, other aspects of commitment may also affect motivation dynamics, such as the amount of money that is potentially forfeited, the duration of the contract, the delay between when a commitment is set and when it begins, or whether the commitment is public or private (Exley and Naecker, 2017; Reiff et al., 2020). Because decision makers can adjust the aggressiveness of their contract along multiple dimensions, they might undercut overall effectiveness by substituting aggressiveness on one dimension for a concession on another. For instance,

encouraging individuals to set an anti-charity contract may lead them to place less money on the line relative to the amount they would set for an otherwise equivalent pro-charity contract. Finding the 'sweet spot' between a contract that is aggressive enough to motivate self-control yet not so aggressive as to discourage initial uptake is a promising avenue for future research.

Future work could also explore whether agents learn to set optimal contracts through repeated exposure, or when given the opportunity to experiment with the structure of different contracts. For instance, small-stakes versions of anti-charity contracts featuring probabilistic (a 1 in 10 chance) or small (e.g., less than \$1) donations to a disliked organization may be acceptable enough to get individuals to try these contracts, learn about their effectiveness, and update their beliefs for future contract selection. Alternatively, individuals could be assigned to different contract types in multiple rounds of a study, thereby observing how their own performance changes in the presence of more aggressive and less aggressive contracts before making a choice for themselves in a final round. Providing decision makers with more personalized information about the effectiveness of contracts may attenuate some of the self-other differences we identify.

#### 11. Conclusion

Goal-setting is ubiquitous, and individuals often fail to meet both their goals and the goals others set for them. Commitment contracts are a viable strategy to help people reach goals by making self-control failures more costly, and aggressive commitments (such as anti-charity contracts) may be especially effective in this regard. We document that decision makers are more likely to select anti-charity contracts for others than for themselves. People appear to recognize the effectiveness of using aggressive commitment contracts to overcome self-control failures, but treat themselves as an exception to that general rule.

Supplementary material. The supplementary material for this article can be found at https://doi.org/10.1017/jdm.2023.1.

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