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Address correspondence to Benjamin Converse, Frank Batten School of Leadership and Public Policy, University of Virginia, Garrett Hall, PO Box 400893, Charlottesville, Virginia 22904, email: [converse@virginia.edu](mailto:converse@virginia.edu), or to Jane Risen, Booth School of Business, University of Chicago, 5807 South Woodlawn Avenue, Chicago, Illinois, email: [jane.risen@chicagobooth.edu](mailto:jane.risen@chicagobooth.edu).

## INVESTING IN KARMA: WHEN WANTING PROMOTES HELPING

**Benjamin A. Converse<sup>1</sup>, Jane L. Risen<sup>2</sup>, and Travis J. Carter<sup>2</sup>**

<sup>1</sup>Frank Batten School of Leadership and Public Policy, and Department of Psychology; University of Virginia, and <sup>2</sup>Booth School of Business, University of Chicago

### Abstract

People often face outcomes of important events that are beyond their personal control, such as waiting for an acceptance letter, job offer, or medical test results. We suggest that when wanting and uncertainty are high and personal control is lacking, people may be more likely to help others, as if they can encourage fate's favor by doing good deeds proactively. Four experiments support this karmic-investment hypothesis by showing that wanting an outcome over which one has little control increases donations of time and money (Experiments 1-2), but not participation in other rewarding activities (Experiment 1b). At a job fair, it causes job-seekers who feel the process is outside (vs. within) their control to make more generous pledges (Experiment 3). We further demonstrate that karmic investments increase one's optimism about a desired outcome (Experiment 4). Finally, we discuss the role of personal control and magical beliefs in this phenomenon.

For so many important outcomes in life, there comes a point when, having done everything one can to make it happen, one must simply sit back and hope things work out. After all the résumé tweaking and hand shaking, the job seeker can only wait for the phone to ring. After all the test preparation and statement crafting, the high-school senior can only scan the mail for the dreaded thin envelope or the prized thick one. After controlling whatever can be controlled, we must eventually turn many outcomes over to “the universe” – some combination of controlling gods, other people's decisions, chance factors, and the fabled flapping of a butterfly's wings.

We suggest that in these moments—when people face outcomes of important life events that are beyond their personal control—rather than waiting passively to learn their fate, people may act as if they can gain fate's favor by doing good deeds proactively. Specifically, we propose

that the experience of awaiting an important, uncontrollable outcome increases the likelihood that people will do good deeds when confronted with the opportunity, as if they were “investing in karma.” For instance, the job seeker may be more likely to drop a few coins in the collection jar after interviewing, and the student may be more willing to offer a helping hand on days he finds himself obsessing about admissions. An alternative possibility is that individuals directed to focus on their own wants and needs may feel disadvantaged, more deserving, and therefore entitled to behave selfishly (Campbell, Bonacci, Shelton, Exline, & Bushman, 2004; Rosenhan, Salovey, & Hargis, 1981; Zitek, Jordan, Monin, & Leach, 2010). We test between these two possible responses to wanting.

### Introducing “Karmic Investments”

Although Western religions do not espouse karma, many Westerners are familiar with the general tenet that “the universe” punishes sins and rewards virtue. It may be rooted in the social expectation that institutions will punish criminals and reward benefactors, and that individuals will reciprocate cruel and kind behavior. People find it disconcerting when the tenet is violated, perhaps in large part because it makes them question whether hard work and self-control will result in gratification (Callan, Shead, & Olson, 2009; Hafer, 2000; Lerner, 1977). Thus, when injustices occur, people feel motivated to restore their belief that “you get what you deserve” (Lerner, 1980).

Researchers have documented many strategies that people use to reconcile apparent injustices, ranging from the derogation of victims to the selective recall of good deeds following lucky breaks (Callan, Kay, Davidenko, & Ellard, 2009; Gaucher, Hafer, Kay, & Davidenko, 2010; Hafer & Bègue, 2005; Lerner & Simmons, 1966). We suggest that the inclination toward making karmic investments may originate from the repeated use of one of such strategy: In the face of apparently chance outcomes, if earlier moral acts are cognitively available, observers may causally connect the two events (Callan, Ellard, & Nicol, 2006). By attributing negative outcomes to logically unrelated moral failings, and positive outcomes to moral rectitude, individuals can rest-assured that good things happen to good people. Over time, this immanent justice reasoning may encourage strong associations between moral behavior and good breaks in events that one cannot personally control. We propose that when people await such uncontrollable events in their own lives, as in the wanting experience that we investigate here, the *good-behavior—good-outcome* association may

spring to mind, biasing individuals to accept opportunities to do good deeds.

Note that the karmic-investment prediction does not require explicit karmic belief. Indeed, theorists have argued that just-world-belief maintenance is largely automatic (Lerner & Goldberg, 1999), and evidence suggests that people rely more on immanent justice reasoning to make causal attributions when systematic thought is interrupted (Callan, Sutton, & Dovale, 2010). More generally, people often behave as if they can influence outcomes that they know they cannot, exhibiting signs of illusory control and outright magical belief (Langer, 1975; Pronin, Wegner, McCarthy, & Rodriguez, 2006; Nemeroff & Rozin, 2000), particularly when personal control is lacking (Friedland, Keinan, & Regev, 1992; Keinan, 2002; Malinowski, 1954). Sports fans provide the most pervasive example, often behaving as if their private rituals can influence their team’s performance. This may bolster their sense of control; and it may also reflect their intuition that something good is more likely to happen under the conditions they associate with good outcomes, an application of the “like causes like” heuristic (Bleak & Frederick, 1998; Damisch, Stoberock, & Mussweiler, 2010; Rozin, & Nemeroff, 2002).

Our proposed karmic investments may act similarly: People may be more likely to act prosocially when they face important life outcomes that are beyond their control, even if they know rationally that they cannot influence the uncertain outcomes. Helping others may indulge the intuition that if one acts virtuously, the universe will reciprocate.

### Overview of Experiments

First, we tested whether people are more likely to act virtuously when they want something outside their personal control. Specifically, we examined whether people are especially willing

to donate time (Experiments 1a-1b) and money (Experiment 2) after reflecting on an important, self-selected, uncontrollable outcome, and whether such reflection uniquely affects helping behavior (Experiment 1b). We then isolated the specific effects of personal versus external control by manipulating whether job-fair attendees perceived the search process as within or outside of their control and measuring their charitable donations (Experiment 3). Finally, we tested whether karmic investments increase job-fair attendees' optimism about finding work (Experiment 4).

### **Experiments 1a and 1b:**

#### **Wanting Increases Volunteerism**

According to our karmic-investment hypothesis, people should act virtuously when they have recently reflected on a desired future outcome. As part of a study on "goals and activities," participants wrote about an important, unknown outcome that they were currently awaiting, or their daily routine. After the study's ostensible conclusion, we measured participants' efforts toward a fundraiser for a local food depository (1a) and a national philanthropic organization (1b). We predicted that wanting would increase helping in both. If increased participation reflects karmic investment, then wanting should uniquely increase good deeds. Experiment 1b included an additional factor. We framed the subsequent task as an opportunity to benefit terminally-ill children or to entertain oneself. We predicted that wanting would increase participation in the helping task but not the entertaining task.

#### **Method**

**Experiment 1a.** Ninety-five undergraduates (47 women) participated for \$3. First, participants wrote one of two essays. Participants in the wanting condition read: "People are often

waiting to learn the unknown outcome of some important event in their lives – for example, scores on an important test, decisions from a job interview, or results of a medical procedure." Participants described a personally relevant, ongoing event; the desired outcome; and the outcome's importance. (Materials for all studies are available in online supporting information.) Participants in the routine condition described one of their daily routines. After the essay, the experimenter paid participants as if the experiment was complete.

As the participant prepared to leave, the experimenter (blind to condition) explained that she worked for a graduate student who was currently testing a program in which students earned money for charity by completing necessary but tedious lab work. The current task involved rating mundane photos, with 2¢ per trial (\$4.00 maximum) going to the Chicago Food Depository. The percentage who agreed to participate constituted the key measure.

**Experiment 1b.** Ninety-nine adults (69 women) participated online for \$0.50 (Amazon's Mechanical Turk; see Burhmester, Kwang, & Gosling, 2011). This study used a 2 (essay: wanting, routine) × 2 (task frame: good deed, entertainment) between-participants design. After participants completed the wanting or routine essay a display indicated that their task was complete. On the next screen, instead of the expected payment code, they found an apparently impromptu message indicating that they had finished a bit early. In the good deed condition, it asked if they would like to "use the remaining time to do a quick good deed." If participants completed a 5-minute study of cognitive performance, researchers would donate \$0.25 to the Make-A-Wish Foundation. In the entertainment condition, there was no donation involved. Participants instead had an

opportunity to volunteer for a “short, fun study” using a creativity game that many others found “entertaining, fun, and interesting.” The percentage who agreed to participate constituted the key measure.

### Results and Discussion

**Experiment 1a.** A chi-square test supported our prediction that wanting (vs. routine) would increase helping rates,  $\chi^2(1, N = 95) = 4.90, p = .027, \phi = .23$  (Figure 1). Participants in the wanting condition were more likely to volunteer (94%) than were participants in the routine condition (78%).

**Experiment 1b.** We first tested whether the influence of wanting (vs. routine) depended on the task framing. We conducted a binary logistic regression predicting participation rates from essay, task frame, and their interaction, and found the predicted interaction, Wald’s  $\chi^2 = 4.47, p = .034$  (Figure 1). As expected, participation rates to help a charity were higher in the wanting (86%) than routine condition (59%),  $\chi^2(1, N = 48) = 4.00, p = .045, \phi = .29$ , but participation rates in a merely entertaining task were not significantly

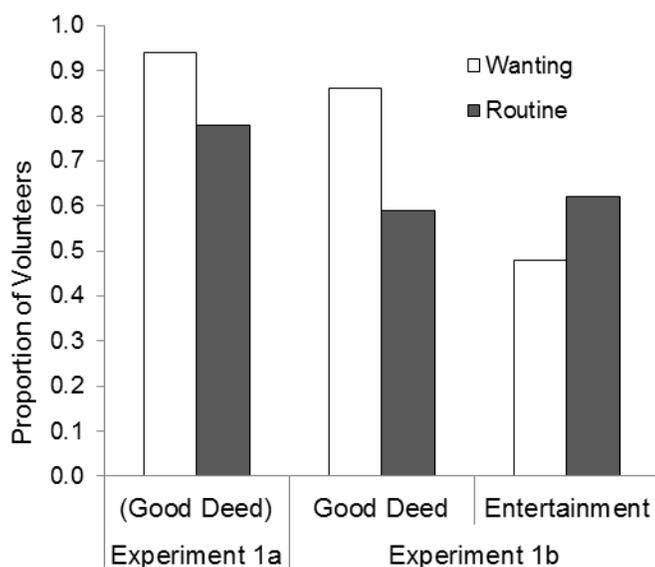
affected by wanting (48%) versus routine (62%),  $\chi^2(1, N = 51) < 1, p = .331$ . Thus, wanting preferentially increased participation for a helping task.

**Discussion.** Experiments 1a and 1b both support the karmic-investment hypothesis. After reflecting on important, unknown outcomes, such as the results of pregnancy attempts, graduate admissions, and court proceedings (all actual participant responses), people were more likely to volunteer their time to provide food for hungry community members (1a) and wishes for terminally-ill children (1b). Participants were not, however, more likely to volunteer their time for an entertaining task that did not seem like a good deed (1b). This latter result implies that the increased participation rates reflect neither mere agreeableness, nor a general desire for distraction or mood repair following potentially anxiety-provoking reflections. Instead, wanting preferentially affected the execution of good deeds, as if people were investing in karma. These results further imply that participants did not make their helping decisions based on considerations of deservingness, in which case entitlement theories would predict increased selfishness in response to wanting.

Compared to reflecting on one’s daily routine, the wanting experience involves desire for an uncontrollable outcome, as well as uncertainty about the future. Although desire and uncertainty are each part of the wanting experience, neither should be sufficient on its own to increase helping if that helping reflects a karmic investment. We addressed this in Experiment 2.

### Experiment 2: Wanting Increases Donations

In Experiment 2, we compared wanting to two related experiences. One involved uncertainty without a lack of control. The other involved



**Fig 1.** Proportion of participants volunteering for a subsequent task as a function of essay condition (Experiment 1a), and as a function of essay condition and task framing (Experiment 1b).

personal preferences without uncertainty or a lack of control. We also expanded the investigation to examine monetary donations because preferences for donating time versus money sometimes diverge (Reed, Aquino, & Levy, 2007). We predicted that people would donate more money in the wanting condition than in the other two.

### *Method*

Ninety-five Chicago community members (49 women) participated for \$8. First, participants received one of three essay prompts. The wanting condition was identical to Experiment 1. The uncertainty condition utilized McGregor and Marigold's personal-uncertainty manipulation (2003; adapted from Taylor & Gollwitzer, 1995), which asks participants to reflect on an unresolved personal dilemma, in the form "Should I ... or not?" For example, one might reflect on her decision to take a job or stay in school. We intended it to match the outcome uncertainty of the wanting condition, but to highlight uncertainty that is within, rather than beyond, one's control.<sup>1</sup> The preferences condition involved describing mundane choices (e.g., pizza vs. burger), an experience involving self-focus, but no significant uncertainty or lack of control. Participants then received \$8 (including 4 quarters). The experimenter directed participants to a professional-looking, apparently anonymous donation center, ostensibly to evaluate a "Science & Society" charity initiative. Participants could donate to Make-A-Wish Foundation, American Cancer Society, or Greater Chicago Food Depository. Donation amounts served as the key dependent variable.

### *Results and Discussion*

We excluded one participant in the wanting condition who wrote about a past event. Another participant's donation of \$8 (in the preferences

condition) was an outlier ( $> 3$  SDs above the mean) and we trimmed it to match the next highest donation (\$3).

We predicted that participants in the wanting condition would donate more money than participants in the other conditions. To test this specific hypothesis, we used an Analysis of Covariance (ANCOVA), controlling for years of education,<sup>2</sup> to conduct a planned contrast on wanting (+2) versus uncertainty and preferences (both -1). As predicted, people donated more in the wanting condition ( $M = \$0.87$ ,  $SD = \$0.91$ ) than in the other two ( $M_{\text{uncertainty}} = \$0.48$ ,  $SD = \$0.66$ ;  $M_{\text{preferences}} = \$0.61$ ,  $SD = \$0.86$ ),  $F(1, 91) = 4.07$ ,  $p = .047$ ,  $\eta_p^2 = .04$ .<sup>3</sup> The two control conditions did not differ,  $t < 1$ .

Experiment 2 demonstrates that wanting increased monetary donations, and provides initial evidence that a lack of outcome control is necessary to stimulate karmic investment. Moreover, in concert with Experiment 1b, it refutes a more general explanation based on relieving negative affect (Cialdini, Darby, & Vincent, 1973). In Experiment 1b, wanting failed to increase participation in a potentially mood-restoring task; and in Experiment 2, the aversive experience of personal uncertainty failed to increase helping relative to voicing mundane preferences. Experiment 3 more directly examined the role of personal control and tested our hypothesis in a real-world setting in which everyone would be focused on the same important outcome.

### **Experiment 3: Personal Control in a Field Experiment with Job Seekers**

If people act prosocially to gain favor with the universe, they should only do so when their own lack of control is apparent. To test this, we induced job-fair attendees to focus on the elements of the search process that were either within or outside of their control. We predicted

that participants who experienced a lack of control over the process would pledge more of their potential lottery winnings to charity.

### **Method**

Seventy-seven Community Job-Fair attendees (49 women) completed a survey about the search process. The only advertised incentive was candy, but participants also entered a (surprise) \$100 lottery after consenting.

The ostensible research focus was a 7-item survey entitled “The Job Search,” which served as our manipulation of personal control.

Participants read about 7 loaded aspects of the job-search process and rated the job-seeker’s level of control over each. In the personal-control condition, we pre-selected items that most people would consider within their control (e.g. *learning a lot about the industry...*). In the outside-control condition, we pre-selected items that most people would say they could not control (e.g. *whether new jobs will open up...*). Thus, we led participants in the personal-control condition to experience control over the process and participants in the outside-control condition to experience a lack of control (implying control by “the universe”).

Following the survey, participants learned about a donation opportunity. The donation form came from a separate pile and was printed in a different style than the lottery sign-up to ensure that participants did not think donations would (directly) affect their odds of winning the lottery. The form asked, if they were to win the survey’s lottery prize, how much they would want to donate to charity (\$0–\$100, \$10 intervals). Preferred donation amounts were the dependent measure.

### **Results and Discussion**

We conducted an ANCOVA on donation amounts, controlling for education.<sup>4</sup> As

predicted, participants in the outside-control condition donated more ( $M = \$34.57$ ,  $SD = \$30.81$ ) than did those in the personal-control condition ( $M = \$20.71$ ,  $SD = \$25.03$ ),  $F(1, 74) = 4.87$ ,  $p = .03$ ,  $\eta_p^2 = .06$ . Thus, when the outcome of their job search seemed like it was in the hands of the universe, participants acted more prosocially.

Having accumulated evidence consistent with the karmic-investment hypothesis across four samples in the lab and field, we designed Experiment 4 to test a unique consequence of the hypothesis. Namely, if people do good deeds as part of a bargain with the universe, then they should be more optimistic about their desired outcome after doing so (see also Kogut & Ritov, 2011).

### **Experiment 4:**

#### **Consequences of Karmic Investment**

We again recruited job seekers and manipulated their perceived control over the search process. Then, rather than measuring helping behavior, we manipulated it. We offered participants a low-cost/high-reward opportunity intended to be so desirable that all would accept, and manipulated whether the reward would benefit charity or the individual. We expected that participants in the outside-control condition who had fulfilled their half of a karmic bargain by helping charity (vs. those in the other three conditions) would be the most optimistic about their job prospects.

### **Method**

Three hundred twenty-seven participants (117 women, 2 unspecified) at a college job fair participated in exchange for entry into a \$100 lottery.

This study used a 2 (control: outside, personal)  $\times$  2 (action: benefit-charity, benefit-self) between-participants design. Participants completed the same initial survey (i.e., control manipulation) from Experiment 3, and then

received an additional opportunity. They could agree to complete a 1-minute survey for a \$50 increase to the lottery prize. In the charity condition, \$50 would go to their chosen charity. In the self condition, \$50 would be added to their own prize. Instructions clearly stated that this did not constitute a separate lottery or affect their odds of winning. Thirty-one participants chose not to complete the second part (9.5%; no difference between conditions,  $\chi^2 < 1$ ), leaving 296 participants in the sample.

The “additional” survey constituted our dependent measure, four questions assessing optimism about current job prospects (e.g., *How likely do you believe it is that you will be offered a job in the relatively near future?*), each measured on 9-point scales ( $\alpha = .84$ ).

### Results and Discussion

To test our specific prediction that participants in the karmic-investment condition (i.e., outside-control + action-to-benefit-charity) would be the most optimistic, we used a one-way ANOVA to contrast this condition (+3) with all others (-1). As predicted, participants who felt the search was out of their hands but who engaged in a prosocial action felt the most optimistic about finding a job,  $F(1, 292) = 5.42, p = .021, \eta_p^2 = .02$  (Figure 2). This study suggests that indulging the karmic intuition may pay off in optimism.

### General Discussion

In four studies, we found support for the karmic-investment hypothesis. Participants were more willing to donate time and money when they reflected on an uncertain outcome that was beyond their control. In the field, job-seekers were more likely to pledge potential lottery winnings to charity if they believed the search process was outside (vs. within) their control. We found repeated evidence of people doing real,

consequential, costly good deeds when they wanted something beyond their control.

We then tested whether this bargain would influence participants’ expectations. We found that participants who invested in karma—those who did good deeds when they wanted something beyond their control—were the most optimistic about their desired outcome, as if the karmic investments would indeed be rewarded. Furthermore, the predictors and consequences of karmic investments appear to be specific. Wanting increased good deeds but not personally beneficial acts (Experiment 1b); and doing a good deed increased optimism, but benefitting the self did not (Experiment 4).

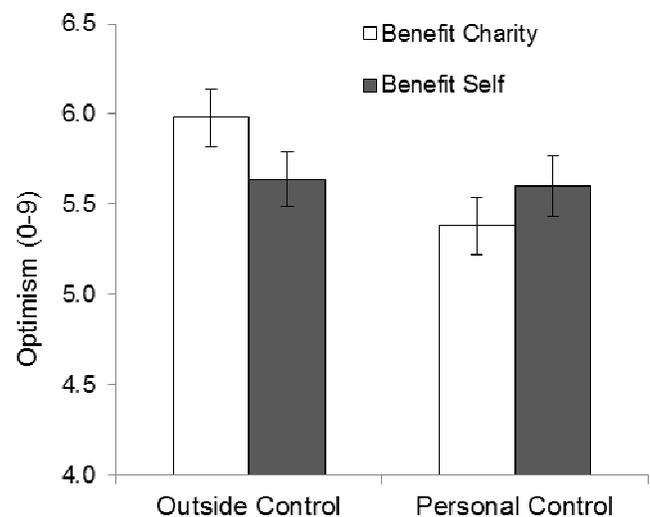


Fig 2. Job prospect optimism ratings as a function of control source and action frame (Experiment 4). Note: Error bars represent standard error of the mean.

### Personal Control

Proximally, karmic investments are only a “relevant” response to an outcome controlled by the universe—meaning, not controlled by the self. Experiments 1-3 demonstrate that a lack of personal control is necessary for the observed effects, but the precise role of control remains a question for future research. More distally, the lack of control may also contribute to the

observed effects by increasing superstitious belief in general (Keinan, 2002).

It is also possible that a perceived lack of control prompts attempts to regain it (White, 1959), attempts that may include acting on others (e.g., helping). Although establishing personal control may well be a side-effect of karmic investment, there are multiple reasons to doubt that it is the mechanism for the effects herein. In particular, our participants often faced alternatives to helping that would have been just as effective for restoring personal control, and yet they did not prefer those options. In Experiment 1a, refusing to work on the experimenter's boring task, and instead pursue one's own interests, would presumably be at least as effective at restoring control as helping. Similarly, withholding money from others (Experiments 2-3) or signing up for an entertaining task (Experiment 1b) seem just as viable for bolstering control as helping others. Thus, although we suspect that karmic investments may indeed increase personal control, consistent with work showing that prosocial behavior can restore control and improve well-being for at-risk populations (Schwartz & Sendor, 1999), this seems insufficient to account for the current findings. Participants appeared particularly motivated to do good deeds, a motivation that suggests karmic concerns.

### *A Spectrum of Beliefs*

Our results provide reliable evidence that people do good deeds when they want something beyond their control. This suggests that they act in accord with a karmic tenet rooted in immanent justice, but does not imply pervasive explicit belief in karma. There may well be a spectrum of belief (Nemeroff & Rozin, 2000). Some might express the belief outright. Others might refrain from endorsing it out of

embarrassment or a desire to avoid undermining their apparent altruism. Still others might have the idea cross their minds, but disregard it upon reflection. Finally, some may not be aware of holding the belief at all. Thus, the notion of karma may reflect a truly magical belief, in which people erroneously assume that actions can influence outcomes without a causal link (Eckblad & Chapman, 1983; Zusne & Jones, 1989), or a so-called *quasi-magical* belief, "in which people act as if they erroneously believe that their action influences the outcome, even though they do not really hold that belief" (Shafir & Tversky, 1992, p. 463).

We suspect that helping as a karmic investment may fall on the more implicit side of this spectrum. Past research has found that people automatically anticipate negative outcomes following behaviors that tempt fate (Risen & Gilovich, 2008), and that people associate positive outcomes with virtuous behaviors (Callan et al., 2009). Thus, people may develop a basic *good-behavior—good-outcome* association, such that hoping for good outcomes activates the cognitive script to do good deeds (Lerner, 2003).

If the observed virtuous behavior reflects a form of karmic investment, whether based on explicit or implicit belief, some version of a karmic belief-system must be at least momentarily activated when people face important, uncontrollable outcomes. Supporting this possibility, we found in a follow-up study that the concept of karma was indeed automatically activated for "wanting" participants. After writing the same wanting or routine essay from Experiment 1, participants completed 10 letter-strings with the first word that came to mind. Critical targets were "KA - - -" (*karma*, *kayak*, etc.), "FA-E" (*fate*, *face*, etc.), and "L-CK" (*luck*, *lock*, etc.). Despite not completing more words overall ( $M_{\text{Wanting}} = 8.76$  vs.  $M_{\text{Routine}} =$

8.98), participants in the wanting condition were more likely to complete the strings with a karma-related word (63.1%) than were participants in the control condition (49.7%),  $\chi^2(1, N = 307) = 5.58, p = .02, \phi = .13$ , suggesting activation of karma-related concepts.

Together, our findings fit with the notion that people turn to external sources of control, such as gods and governments, when internal control is lacking (Jost, Banaji, & Nosek, 2004; Kay, Gaucher, Napier, Callan, & Laurin, 2008), and may even turn to apparently magical systems when necessary (Malinowski, 1954). We provide evidence that people may proactively invest in those systems in the hopes of improving their outcomes. Karmic investments do not appear to represent motivated attempts to maintain just-world beliefs, but they may represent artifacts of that belief-maintenance process.

### **Conclusion**

We find that, rather than increasing selfishness, wanting can increase helping. Although most job applicants might deny that doing a good deed has any bearing on getting an offer, they may nonetheless feel compelled to offer a helping hand when reflecting on their wishes. These karmic-investment behaviors suggest that people may not only pursue reciprocal exchanges interpersonally, but may also attempt to bargain with the universe.

### **Acknowledgments**

We thank Ashley Angulo and Emily Kaiser for help conducting the experiments; Clayton Critcher, Noah Goldstein, and Adam Waytz for insightful comments that improved the research; and the Frank Batten School of Leadership and Public Policy and Booth School of Business for financial assistance.

### **Notes**

1. Pre-testing ( $N = 62$ ) indicated that momentary affect (1 = *extremely negative* – 7 = *extremely positive*) was similar in the wanting ( $M = 4.53, SD = 1.59$ ) and uncertainty conditions ( $M = 4.83, SD = 1.26$ ),  $t(60) = 0.83, p = .412$ . The 20-item State-Trait Anxiety Inventory (Spielberger, Gorsuch, & Lushene, 1970) indicated that participants were marginally more anxious (e.g., nervous, jittery) in the wanting versus uncertainty condition,  $t(60) = 1.67, p = .102$ , but more indecisive in the uncertainty versus wanting condition,  $t(60) = 2.84, p = .006$ .
2. Experiments 2-3 used community samples, including participants from varied educational backgrounds. Because education is a predictor of monetary donations (e.g., Andreoni & Scholz, 2008), we controlled for it in our analyses.
3. Education is a marginally significant (positive) predictor of donations,  $F(1, 91) = 3.18, p = .08$ . Without the covariate, the contrast is marginally significant,  $F(1, 92) = 3.29, p = .073$ .
4. We include education to be consistent across studies, but it is not a significant predictor in this model  $F(1, 74) = 1.20$ . Results do not change meaningfully if we exclude the covariate.

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## *Supporting Information: Materials for Experiments 1–4*

### **Materials**

#### *Wanting Essay (Experiments 1a, 1b, 2 and follow-up described in General Discussion)*

On any given day, people are often waiting to learn the unknown outcome of some important event in their lives – for example, scores on an important test, decisions from a job interview, or results of a medical procedure. We are interested in what kinds of outcomes are important to [you].

Please specify one such experience that you are **currently** anticipating (that is, some unknown outcome that you are currently awaiting). It may be like one of the examples mentioned above or it may be something completely different, as long as the outcome is important to you and it is currently unknown.

Please use this page to describe the event: what are you waiting to find out, what do you hope the outcome will be, and why is the outcome important to you? Write as much or as little as you want. The experimenter will give you about 5 minutes to do so. Thank you.

In Experiments 1b and 2, the following line was added at the end of the second paragraph to focus responses: “It should be a *specific* event with *concrete* outcomes (e.g., pass or fail the test, receive a job offer or not, positive or negative medical test results).” In Experiment 1b, the timing and length guidelines at the end of the third paragraph were changed as follows to better facilitate online administration: “To give us some real insight into your thinking, please spend the next 3-5 minutes reflecting on these questions and writing about them. Please put some effort into providing a thorough description. Thank you.” Participants who submitted answers less than 100 characters in length were requested to write a bit more. In Experiment 2, participants wrote for 10 minutes instead of 5 minutes.

#### *Daily Routine Essay (Experiments 1a, 1b, and follow-up described in General Discussion)*

On any given day of the week, people often have some kind of routine that they follow to get ready for the day – for example, they might eat certain foods, get dressed in a certain order, or have some other routines. We are interested in what kinds of routines [you] tend to follow.

Please choose one day of the week on which you tend to have some kind of routine. It may be a routine like the examples mentioned above or it may be something completely different, as long as it is what you tend to do on that day of the week.

Please use this page to describe your morning routine: what day of the week is the routine for, what does the routine consist of, and how does the routine vary? Write as much or as little as you want. The experimenter will give you about 5 minutes to do so. Thank you.

The timing and length guidelines varied as described for the wanting essay.

***Uncertainty Essay (Experiment 2; adapted from McGregor & Marigold, 2003)***

On any given day, people are often facing some unresolved personal dilemma that makes them feel uncertain – for example, “Should I take an extra class this term or not?” “Should I ask that person on a date or not?” “Should I accept the job offer or not?” We are interested in what kinds of dilemmas are important to [you].

Please specify one such unresolved personal dilemma that you are **currently** facing (that is, some difficult decision that you must soon make). It may be like one of the examples mentioned above or it may be something completely different, as long as you are very uncertain about what to do and you have not already solved the dilemma. It should be a *specific* dilemma with *concrete* options, and should take the form “Should I ... or not?”

Please use this page to describe the dilemma: Start with the question, “Should I ... or not?” Please describe what you are trying to decide and why it is important to you. Please reflect on the pros and cons of each option. If you choose one option, what important values in your life would this reflect? If you choose the other option, what important values in your life would that reflect?

To give us some real insight into your thinking, please spend the next 10 minutes reflecting on these questions and writing about them. Write as much as you want to. Thank you.

In the mood and anxiety pre-test (described in Footnote 1), the timing guidelines were changed to facilitate online administration. We requested that participants spend about 3-5 minutes.

***Preferences Essay (Experiment 2; adapted from McGregor & Marigold, 2003)***

On any given day, people face a series of simple choices in their lives – for example, what foods to choose on a menu, or what television show to watch next. We are interested in what kinds of decisions are faced by [you].

Please tell us about what your choice would be in **each** of the following 3 situations.

- (1) If I could choose right now, I would choose to eat: pizza or a burger.
- (2) If I could choose right now, I would choose to receive from my best friend: an email or a phone call

(3) If I could choose right now, I would choose a day: at the beach or at a museum

Please use this page to describe each choice from the 3 above. Please specify which of the two you would choose in each case and why. For the option you would choose, tell us more about what you would want in that case (for example, if you would choose a burger, tell us what your favorite kind of burger is and where you would get it from, etc).

To give us some real insight into your thinking, please spend 10 minutes thinking about these choices and writing about them. Write as much as you want to. Thank you.

### ***Control Manipulation (Experiments 3 and 4)***

*Personal control condition.*

#### The Job Search

We recognize that the job search process involves some factors that are within your own control and others that are beyond your control. Please consider the following aspects of the job search and indicate to what extent they are **in your own personal control**, by putting one X per question in the box that corresponds to your opinion.

Factors that affect the job-search process:

1. Actively searching for new opportunities
2. Applying to many different jobs
3. Preparing for interviews and meetings
4. Presenting oneself as a strong candidate in resumes or cover letters
5. Learning a lot about the industry one wants a job in
6. Meeting people and creating a network
7. Filling out applications carefully and thoughtfully

Responses were made on the following scale (from left to right):

0 = *I have absolutely no control over this*

1 = *I have at least some control over this*

2 = *I have a lot of control over this*

3 = *I have complete or almost complete control over this*

*Outside control condition.*

The Job Search

We recognize that the job search process involves some factors that are within your own control and others that are beyond your control. Please consider the following aspects of the job search and indicate to what extent they are **outside of your personal control**, by putting one X per question in the box that corresponds to your opinion.

Factors that affect the job-search process:

1. Whether new jobs will open up / become available
2. Whether anyone will read my application or resume
3. Whether the hiring committee will like me
4. Whether my particular set of skills makes me a strong candidate for a certain job
5. Whether there will be jobs open in my area of specialty
6. Whether someone in my professional network will be able to help me
7. Whether I will be in the right place at the right time

Responses were made on the following scale (from left to right):

- 3 = *This is strongly affected by forces beyond my control*
- 2 = *This is somewhat affected by forces beyond my control*
- 1 = *This is a little affected by forces beyond my control*
- 0 = *Nothing about this is outside my control – I have complete control over this*