Desire for a positive moral self-regard exacerbates escalation of commitment to initiatives with prosocial aims

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A B S T R A C T

Across three experiments, people escalated commitment more frequently to a failing prosocial initiative (i.e., an initiative that had the primary aim of improving the outcomes of others in need) than they did to a failing egoistic initiative (i.e., an initiative that had the primary aim of improving the outcomes of the decision-maker). A test of mediation (Study 1b) and a test of moderation (Study 2) each provided evidence that a desire for a positive moral self-regard underlies people's tendency to escalate commitment more frequently to failing prosocial initiatives than to failing egoistic initiatives. We discuss the implications of these findings for the resource-allocation decisions that people and organizations face when undertaking initiatives with prosocial aims.

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Introduction

The 21st Century Community Learning Centers (21st CCLC) initiative aims to provide after school enrichment opportunities to underserved students. Despite a three-year Department of Education study showing that the initiative fails to meet its aims and even facilitates "deviant peer contagion," congress and advocacy groups continue to support and invest in the initiative (Halpern, 2002; Stern, 2013). Similarly, the Drug Abuse Resistance Education program (D.A.R.E) continues to receive billions of dollars in funding from donors and taxpayers despite mounting scientific evidence that the initiative produces no meaningful reduction in drug use and in some cases actually makes kids more likely to use drugs (Lynam et al., 1999; MacKillop, Lisman, Weinstein, & Rosenbaum, 2003; Werch & Owen, 2002).

These are not isolated examples. Social programs, educational reforms, and development efforts that seek to improve the lives of others frequently fail to bring about their intended societal benefits (e.g., Darling-Hammond, Holtzman, Gatlin, & Vasquez Heilig, 2005; Laczko-Kerr & Berliner, 2002; Strauss, 2008; Strom, 2010). Nevertheless, individuals and groups continue to invest their time, effort, and resources in these failing initiatives (see Stern, 2013 for a review). Given the ubiquity of social problems and the finite resources for solving them, what accounts for individuals' continued commitment to unsuccessful social initiatives?

The tendency for individuals and organizations to continue to invest in failing courses of action (i.e., to escalate commitment) has been documented across a variety of domains. Organizational scholars have demonstrated that a desire to feel competent and intelligent often underlies this tendency to escalate commitment (see Brockner, 1992 for a review). When decision-makers escalate commitment instead of pulling back, they may avoid admitting that their prior decisions were incorrect, they may avoid losing face, and they may maintain consistency in their behavior (see Sleesman, Conlon, McNamara, & Miles, 2012; Staw & Ross, 1987 for reviews). The motivation to appear competent helps to explain why coaches continue to play athletes in games even after their performance has deteriorated (Staw & Hoang, 1995), why countries prolong engagements in foreign conflicts after the missions are proven to be futile (see Staw, 1981), and why managers show greater commitment to ineffective employees if they had previously decided to promote them (Bazerman, Beekun, & Schoorman, 1982).

As these examples show, escalation of commitment is not unique to the prosocial domain. We propose, however, that it is more likely to occur in the prosocial domain. That is, we posit that people are more likely to escalate commitment to failing initiatives that have prosocial aims (i.e., initiatives that have the primary purpose of improving the outcomes of others in need) than they are to failing initiatives that have egoistic aims (i.e., initiatives that have the primary purpose of improving the outcomes of the decision-maker).

At first blush, it might seem that people should be just as likely to escalate commitment to failing prosocial initiatives as they are to failing egoistic initiatives because people face similar motivations in both contexts; they are likely motivated by a desire to feel

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competent and a desire to produce a positive outcome for the intended beneficiary (cf., Brockner, 1992). We reason, however, that when people are engaged in a prosocial course of action they also are motivated by a desire for a positive moral self-regard. This desire might conflict with, and potentially override, the motivation to produce positive outcomes for the intended beneficiary.

We suggest that investing effort to *try* to help others boosts people's moral self-regard regardless of whether this effort produces benefits for the intended beneficiary. Therefore, people have an incentive to continue working on prosocial initiatives even when their efforts are unhelpful. This incentive likely influences people's actions more when people are engaged in prosocial initiatives than when they are engaged in egoistic initiatives because working on a prosocial initiative provides more of an opportunity to boost one's moral self-regard than does working on an egoistic initiative.

We seek to make two important contributions to the study of organizational ethics and organizational decision-making by suggesting that a desire for a positive moral self-regard exacerbates escalation of commitment to initiatives with prosocial aims. First, we seek to show that the desire to demonstrate morality through action may lead people to allocate resources inefficiently. This desire may lead people to generate fewer benefits for people in need than they could generate if they were not motivated by this desire. Thus, a desire for a positive moral self-regard may help to explain why people may continue to invest in failing social initiatives. Second, we seek to illuminate an important tension that can arise between people's desire for a good moral character and their ability to do good for others. The paper therefore offers novel insights about the unique challenges that organizations and individuals face when they undertake prosocial initiatives.

The motive to have a positive moral self-regard

People's self-concepts are largely determined by their moral self-regard (Blasi, 1984; Dunning, 2007). Moral self-regard captures the extent to which people believe that they possess positive moral traits, or how they answer the question, "How moral am I?" (Monin & Jordan, 2009). Moral self-regard varies between people such that some people tend to have a higher moral self-regard than others. It also varies within people such that a person's moral self-regard can change over time and across situations (Jones & Ryan, 1997; Monin & Jordan, 2009; Sachdeva, Iliev, & Medin, 2009). Although a distinct concept, moral self-regard is related to other personological concepts of morality such as the self-importance of moral identity (Aquino & Reed, 2002; Blasi, 1984). People who are high in moral identity (i.e., people whose self-concept is influenced strongly by the extent to which they possess moral traits) are more likely than people who are low in moral identity (i.e., people whose self-concept is not influenced strongly by the extent to which they possess moral traits) to attend to their moral self-regard (e.g., Monin & Jordan, 2009).

People often act in ways to boost their moral self-regard and to gain moral approval from others (Aronson, 1969; Jones & Ryan, 1998; Merritt, Effron, & Monin, 2010). People will engage in prosocial behaviors (Aquino, McFerran, & Laven, 2011; Jordan, Mullen, & Murnighan, 2011; Sachdeva et al., 2009), refrain from cheating (Mazar, Amir, & Ariely, 2008), cleanse their bodies (Zhong & Liljenquist, 2006), and denigrate people whose actions are more righteous than their own (Monin, Sawyer, & Marquez, 2008) – all so that they may be perceived by others and by themselves as moral actors.

Exerting effort to help others as a means of maintaining a positive moral self-regard

People also might seek to boost their moral self-regard by exerting effort on prosocial initiatives. Observers view people who invest great effort in prosocial initiatives to have greater moral character than people who invest little effort, regardless of whether the extra effort yields any additional benefits for the intended beneficiaries (e.g., Olivola, 2010; Weiner & Peter, 1973). Theories of collective action and competitive altruism help to explain this effect. They suggest that because collective life depends on some level of sacrifice from each member, groups tend to value and reward those members who exert great personal effort to help others (Hardy & Van Vugt, 2006; Ostrom, 1990; Willer, 2009). In line with this idea, all major religions treat personal sacrifice as a hallmark of virtuous behavior (Cormack, 2002) and many admirable moral characteristics (e.g., being charitable, trustworthy and honest) involve accepting personal risk for the betterment of others (Sober & Wilson, 1998, see also Baumeister & Exline, 1999).

Given that groups value members who exert great effort to help others in need, people may invest personal effort in prosocial initiatives in order to boost their moral self-regard and obtain others' moral approval (cf. Jones & Ryan, 1997, 1998). In support of this idea, people feel better about themselves when they spend many hours volunteering than when they spend few hours volunteering (Morrow-Howell, Hinterlong, Rozario, & Tang, 2003; Thoits & Hewitt, 2001). They also experience a greater sense of meaning and purpose when they endure hardships to help others than when they do not endure hardships (Olivola & Shafir, 2013). Additionally, people whose self-concept is strongly determined by the extent to which they possess moral traits will choose to engage in helping behaviors that require high personal effort over helping behaviors that require low personal effort – even when the two behaviors benefit the intended beneficiary equally (Reed, Aquino, & Levy, 2007). Research on people's responses to transgressions also supports the idea that people will endure personal costs as a means of boosting their moral self-regard. People will endure physical pain and make large personal sacrifices in order to atone for transgressions even if these efforts have no effect on those who suffered from the transgressions (Bastian, Jetten, & Fasoli, 2011; Inbar, Pizzaro, Gilovich, & Ariely, 2013; Lowery, Chow, & Knowles, 2012).

The desire for a positive moral self-regard and escalation of commitment

The desire for a positive moral self-regard likely exerts a stronger influence on people's actions when they are engaged in prosocial initiatives than when they are engaged in egoistic initiatives because moral concerns likely are more salient when people have an opportunity to help others in need (cf., Aquino, Freeman, Reed, Lin, & Felps, 2009). We reason that the desire for a positive moral self-regard influences the resource allocation decisions people make when they are engaged in prosocial initiatives. In particular, we propose that people may choose to invest effort in a prosocial initiative regardless of whether the initiative is effective in helping others because, as discussed above, exerting effort to *try* to help others likely boosts people's moral self-regard regardless of whether this effort helps people.

When a prosocial initiative is effective at helping others, the desire for a positive moral self-regard likely is functional. In this case, the motive to produce the most benefit for the intended beneficiary and the motive for a positive moral self-regard are aligned. That is, when a prosocial initiative is effective, the more effort people invest in the initiative the more the intended beneficiary benefits from the initiative.

A potential problem may arise, however, when people are engaged in an ineffective or failing prosocial initiative wherein no reasonable amount of effort or investment will produce the intended benefits. An initiative may be flawed for a variety of reasons—the intended beneficiary might not value the outcome (Ladieu, Hanfmann, & Dembo, 1947; Penner, Dovidio, Piliavin, &

Schroeder, 2005), the intended beneficiary might not be able to receive the outcome (Shaikh, 2010; Strom, 2010), or the cost of undertaking the initiative may be greater than any corresponding benefit to the beneficiary (Foster & Bradach, 2005). In these cases, the beneficiary stands to benefit more if the initiative were halted and resources directed elsewhere than if it were to continue.

When a prosocial initiative is ineffective or failing, the motive for a positive moral self-regard may compete with the motive to produce the most good for the beneficiary. Continuing to invest effort in the failing prosocial initiative may increase people's moral self-regard but decrease the benefits for the intended beneficiary. Conversely, ceasing to invest effort in the failing prosocial initiative may increase the benefits for the intended beneficiary, but may decrease decision-makers' moral self-regard. Thus, people may face a tension between the motive for a positive moral self-regard and the motive to generate the greatest benefits for the intended beneficiary when they are engaged in a failing prosocial initiative. Because self-concept concerns often motivate people's resource allocation decisions (Ross & Staw, 1993; Sleesman et al., 2012; Staw, 1981), the desire for a positive moral self-regard may trump the motive to generate the most benefits for the intended beneficiary—leading people to escalate commitment.

People who are engaged in ineffective or failing egoistic initiatives are less likely to experience a strong tension between producing the most benefits and feeling the most moral. Working to benefit the self provides less of an opportunity to demonstrate one's morality than does working to benefit others in need (e.g., Aquino et al., 2009; Jones & Ryan, 1997).Therefore, the desire for a positive moral self-regard is less likely to motivate people to persist working on a failing egoistic initiative than it is to motivate people to persist working on a failing prosocial initiative. We therefore propose:

Hypothesis 1. People are more likely to invest effort beyond a point that is economically rational (i.e. to escalate commitment) to courses of action that have prosocial aims than they are to courses of action that have egoistic aims.

Hypothesis 2. A desire for a positive moral self-regard mediates people's tendency to escalate commitment more frequently to courses of action with prosocial aims than to courses of action with egoistic aims.

Overview of studies

We test the prediction that people are more likely to escalate commitment to courses of action that have prosocial aims than to course of actions that have egoistic aims in three studies. In each study, we manipulate whether an initiative has prosocial or egoistic aims and assess people's tendency to escalate commitment to it. In Study 1a, we use a behavioral study to test this basic effect. In Study 1b, we measure the extent to which people's actions on the initiative were motivated by concerns about their moral self-regard and test whether these concerns mediate people's tendency to escalate commitment more frequently to prosocial initiatives than to egoistic initiatives. In Study 2, we seek to provide additional support for our proposed mechanism by testing whether moral identity moderates the effect.

Study 1a

Study 1a tested the prediction that people are more likely to escalate commitment to initiatives that have prosocial aims than to ones that have egoistic aims. We manipulated the aims by varying who stood to benefit from participants' performance on the initiative.

Method

Participants

We recruited 112 native English speakers from a large university on the West Coast of the United States (56 men, 56 women, M_{age} = 20.95). Participants received $5.00 for participating in the study. They also had an opportunity to earn additional money during the study.

Procedure

Participants completed a task that uses a behavioral paradigm to measure escalation of commitment (see Ku, 2008a, 2008b; Rubin & Brockner, 1975). The experimenter told participants that they would try to solve 10 anagrams in order to earn money and that their goal was to earn as much money as possible (see the Appendix A for a list of the anagrams). She then gave participants a packet that contained a detailed overview of the task.

Participants completed a trial anagram to ensure they understood the task. They learned that the amount of money they would earn depended on the amount of time they spent on the task and the number of anagrams they solved. They would receive an initial stake of $3.00, but they could earn up to $8.00 if they hit the "jackpot" (i.e., if they solved at 8 out of 10 anagrams). There was a chance, however, that they would earn no money.

Participants then received a detailed payoff matrix. The payoff matrix showed the amount of money participants would earn as a function of the time they spent on the task and the number of anagrams they solved (see Appendix B). A written example accompanied the payoff matrix to help participants understand it:

> As you can see in the matrix, if you spend less than 3 min on the anagrams and unscramble correctly at least 8 anagrams you will receive $8.00. If you spend less than 3 min on the anagrams and do not unscramble correctly at least 8 anagrams you will receive $3.00. You can choose the amount of time that you spend on the task and the number of anagrams that you solve. If you spend more than 12 min on the task, you will not receive any money for the task.

The payoff structure for the task was such that all participants would be financially better off quitting before the sixth minute. After this point, participants would earn more money if they were to unscramble fewer than eight anagrams than they would earn if they were to unscramble more than eight anagrams. That is, at the 6 min mark, participants would earn more money if they were to stop working on the anagram task than if they were to continue to work on it. Therefore, continued effort beyond the sixth minute indicated escalation of commitment (see Ku, 2008a, 2008b).

Following the experimental design developed and used by Ku (2008a, 2008b), we also gave participants the opportunity to use hints. Participants received three hints (e.g., the last letter of each of the 10 words) that were sealed in separate envelopes. Participants were told that 45 s would be added to their total time for each hint that they opened. We included the opportunity for participants to use hints for two reasons. First, we sought to keep the experimental design as similar as possible to previous studies that have used it (see Ku, 2008a, 2008b). Second, the use of hints in this study mirrors the types of decisions that often lead to escalation of commitment insofar as participants have to choose to invest time to obtain a resource (a hint) that may or may not be useful.

Participants informed the experimenter when they had finished reviewing the instructions and were ready to start the anagram task. They then received the anagrams, the hints sealed in envelopes, and a stopwatch. The experimenter reminded participants that they would have up to 12 min on the task, but that they could stop at any time. The experimenter told participants that they

should stop the stopwatch and immediately notify her when they wanted to stop the task. The experimenter also had her own stopwatch, which she used to ensure that participants kept accurate time. The experimenter started the stopwatches and then left the participant to work on the task in private. After participants decided to stop the anagram task, or after 12 min expired (whichever came first), the experimenter collected the anagrams and the hints from the lab room. The participants then completed a post-task questionnaire that asked them questions about their experiences during the study (e.g., "How motivated were you to earn money on the task?") and about their demographic background.

Due to an experimenter oversight, some participants were not given a stopwatch. We found no evidence that having a stopwatch moderated any of the effects. Moreover, all of our findings remained significant regardless of whether we controlled for whether participants received a stopwatch (see the results section for more detail about this analysis). We therefore included the results for all participants in our analyses.

Manipulating the prosocial or egoistic aims of the task

We manipulated whether the task had prosocial or egoistic aims by varying for whom participants could earn money. Participants in the egoistic aims condition solved anagrams to earn money for themselves (hereafter referred to as the self condition). Participants in the prosocial aims condition solved anagrams to earn money for a charity of their choice (hereafter referred to as the charity condition). They learned that the money they earned would be donated in their name to this charity. We provided participants a list of possible charities for which they could play, but also told them that they could play for any charity that they chose. Participants wrote the name of the charity they chose and a short explanation about why they chose to play for that charity.

We contend that increasing the prosocial aims of an initiative *increases* people's tendency to escalate commitment. The argument could be made, however, that increasing the financial implications for the self *reduces* people's tendency to escalate commitment. In other words, participants may become more attentive to the financial payoff when their own earnings are at stake and therefore escalate commitment less frequently. We included a condition with both egoistic and prosocial aims (hereafter referred to as the self-and-charity condition) to help rule out this alternative possibility. Participants in this condition learned that both they and a charity would receive the money participants earned on the anagram task. That is, if participants earned $3.00, they would receive $3.00 and $3.00 would be donated in their name to the charity. Participants in this condition also indicated for which charity they would play and why. Participants in this condition had the same incentives as both participants in the charity condition and participants in the self condition. If increasing the prosocial aims of a task increases people's tendency to escalate commitment (as we contend), then we would expect participants in the self-and-charity condition to escalate commitment more frequently than participants in the self condition, whose actions do not have prosocial implications.

We do not make specific directional predictions about the differences in the frequency of escalation of commitment between the self-and-charity condition and the charity condition. It is possible that participants in these conditions would not differ in the frequency with which they escalate commitment given that they both have an incentive to boost their positive moral self-regard by exerting effort to try to earn money for a charity. Alternatively, participants in the self-and-charity condition might escalate commitment less frequently than participants in the charity condition because the motive to earn money for one's own self may compete with the desire to boost one's moral self-regard.

Dependent variables

Escalation of commitment. If participants were to spend 6 min or more on the task, they would be better off financially if they were to stop the task than if they were to continue it. Therefore, we followed Ku (2008a, 2008b) by operationalizing escalation of commitment as spending six or more minutes on the task. We also followed Ku by calculating the total number of seconds participants spent on the task plus any additional time penalty participants incurred for using the hints. Escalation of commitment was defined as a binary outcome: 0 = did not escalate commitment (spent 0–359 s on the task); 1 = escalated commitment (spent 360 or more on the task). This dichotomized measure of escalation of commitment served as our primary dependent variable.[1]

Participants' self-reported motivation on the task. We asked participants after they completed the anagram task to indicate (1) how motivated they were to earn money on the task, and (2) how motivated they were to solve at least eight anagrams. Participants responded to each item on a 7-point scale (1 = *not at all*; 7 = *extremely*).

Results

Manipulation check

We ran a pilot study with a separate group of 77 participants to ensure that we effectively manipulated whether the task had prosocial or egoistic aims. These participants read a description of the study and were randomly assigned to a condition, such that they read that a group of students solved anagrams to earn money for themselves, a charity, or themselves and a charity. Participants then answered questions about the prosocial nature of the task (e.g., "To what extent did the students' actions on the task show a social responsiveness to the needs and interests of others?"), the perceived difficulty of the task (e.g., "How hard or easy do you think the task was for the students?"), and how interesting they thought the students found the task (e.g., "How boring or interesting do you think the students found the task?"). These participants also indicated the extent to which they thought the students' actions on the task were motivated by (1) a desire to feel warm and caring, and (2) a desire to feel competent and smart. As shown in Table 1, participants perceived the charity condition to have stronger prosocial aims than the self-and-charity condition, which in turn had stronger prosocial aims than the self condition. These participants thought that all three conditions were similarly difficult and interesting to the students. They also thought that the students in the three conditions were similarly motivated by a desire to feel competent and smart.

Hypothesis testing

We predicted that participants in the charity condition and participants in the self-and-charity condition would escalate commitment more frequently than participants in the self condition. Given these directional hypotheses, we used one-tailed tests of significance for (1) comparisons between the charity condition and the self condition, and (2) comparisons between the self-and-charity condition and the self condition (see Jones, 1952, 1954; Kimmel, 1957). We used two-tailed tests for the comparison between the charity condition and the self-and-charity condition because we

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[1] As a robustness check, we also computed a related continuous measure of escalation of commitment that is comprised of the number of seconds over 5 min and 59 s participants spent on the task. We used a log transformation to correct for the skew and non-normal distribution caused by many participants stopping the task before six minutes. We found in this study and both subsequent studies that the dichotomous and continuous measures provided similar results. For the sake of brevity we report only the dichotomous measures. For full results, please contact the first author.

Table 1
Results of an ANOVA from a pre-test to establish the validity of the manipulation of the prosocial and egoistic aims of the task that was used in each of the three studies.

Dependent variable	Self		Self-and-charity		Charity		$F(2, 74)$	Sig. (p)
	M	SD	M	SD	M	SD		
Perceived prosocial nature of the task	2.14$_a$	0.99	3.17$_b$	0.82	3.80$_c$	0.80	23.10	<.001
Perceived difficulty of the task	3.04$_a$	1.02	2.81$_a$	1.11	3.08$_a$	1.19	0.44	.65
Participants' perceived level of interest in the task	3.84$_a$	0.85	3.56$_a$	1.16	3.76$_a$	1.01	0.55	.58
The degree to which participants were perceived to be motivated by a desire to feel warm and caring	1.52$_a$	0.82	2.82$_b$	0.98	3.92$_c$	0.81	46.98	<.001
The degree to which participants were perceived to be motivated by a desire to feel smart and competent	3.92$_a$	0.81	3.56$_a$	0.93	3.60$_a$	1.00	1.19	.31

Note. Means in the same row with different subscripts differ from each other at $p < .05$.

did not have a directional hypothesis for this comparison.

Escalation of commitment

We ran a series of chi-square tests of independence to test our hypothesis that people are more likely to escalate commitment to prosocial initiatives than to egoistic initiatives. The prosocial aims of the initiative (i.e., whether a charity stood to benefit) significantly influenced participants' tendency to escalate commitment (see Fig. 1). Participants in the charity condition escalated commitment 72% of the time, which was significantly more frequently than participants in the self condition (who escalated commitment 36% of the time), $\chi^2(1, N = 78) = 10.11$, $p < .001$ (one-tailed). Participants in the self-and-charity condition escalated commitment 69% of the time, which was also significantly more frequently than participants in the self condition, $\chi^2(1, N = 73) = 8.76$, $p = .002$ (one-tailed). Participants in the charity condition and participants in the self-and-charity condition did not differ in the frequency with which they escalated commitment, $\chi^2(1, N = 73) = 0.01$, $p = .91$ (two-tailed).

Participants' self-reported motivation on the task

Neither participants' reported desire to earn money on the task, $F(2, 109) = 0.83$, $p = .44$ (two-tailed), nor their reported desire to solve at least eight anagrams, $F(2, 109) = 1.58$, $p = .21$ (two-tailed), varied across conditions (see Table 2 for means and standard deviations). These findings mitigate concerns that varying levels of interest in the task accounted for cross-condition differences in the rates of escalation.

Supplementary analysis

As mentioned previously, some participants did not receive a stopwatch to time themselves on the task. We assessed whether receiving a stopwatch moderated any of the effects of condition on the frequency of escalation of commitment. We found no evidence that receiving a stopwatch moderated these effects. Participants with a stopwatch, however, escalated commitment more frequently than did participants without a stopwatch, $\chi^2(1, N = 112) = 3.55$, $p = .059$ (two-tailed). We ran a binary logistic

regression in which we regressed whether participants escalated commitment on $k - 1$ dummy variables for condition and whether they received a stopwatch as a covariate. Including this covariate in the analysis had no bearing on the results, which suggests that the differences we observed across conditions were not due to the fact that some participants received a stopwatch and others did not.

Discussion

The results of Study 1a are consistent with Hypothesis 1. Participants were more likely to escalate commitment to a course of action when it had prosocial aims than when it had egoistic aims. Participants escalated commitment more frequently to a course of action when a charity stood to benefit from their efforts than when they alone stood to benefit. Participants also escalated commitment more frequently when both they and a charity stood to benefit from their efforts than when they alone stood to benefit. Thus, even when participants had the incentive to earn money for themselves, increasing the prosocial aims of the task increased participant's tendency to escalate commitment to it.

One could argue that participants who earned money for a charity may have been less interested in the task than participants who earned money for themselves because, for example, they thought a charity would not value a small donation of money, or because the benefit to the charity was not immediate (i.e., the donation would be made a later date). Consequently, participants who had the opportunity to earn money for only a charity may have been more interested in solving the anagrams (because they found them interesting, for example) than were participants who had the opportunity to earn money for themselves. There are two reasons why this is unlikely to be the case. First, across conditions, participants reported being similarly motivated to earn money and to solve anagrams. Second, participants who had an opportunity to earn money for both themselves and a charity escalated commitment more frequently than did participants who had the opportunity to earn money for only themselves.

We contend that a desire for a positive moral self-regard underlies people's tendency to escalate commitment more frequently to initiatives with prosocial aims than to ones with egoistic aims. We test this mechanism more directly in Study 1b by measuring the extent to which participants' desire for a positive moral self-regard motivates their behavior on the task.

Study 1b

The goals of Study 1b were twofold. First, we sought to replicate the findings from Study 1a because of the experimental error in Study 1a that resulted in some participants not receiving a stopwatch and because of recent calls for more direct replication of experimental studies (see Roediger, 2012). Second, we wanted to provide a more direct test of our proposed mediating mechanism. We included a measure to assess the extent to which participants' actions on the task were driven by a desire for a positive moral self-
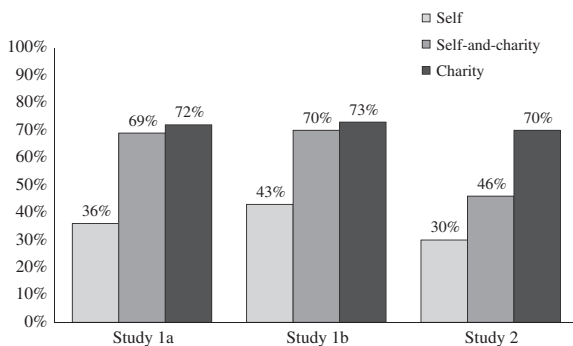

Fig. 1. The frequency of escalation of commitment from Studies 1a, 1b, and 2.

Table 2
Means and standard deviations of participants' self-reported motivation on the task from Studies 1a, 1b, and 2.

Study	Condition	Self-reported motivation to earn money		Self-reported motivation to solve at least 8 anagrams		Self-reported desire for a positive moral self-regard		Self-reported desire to feel competent	
		M	SD	M	SD	M	SD	M	SD
Study 1a	Self	5.82	1.72	6.28	0.83				
	Self-and-charity	6.15	1.13	5.88	1.30				
	Charity	5.69	1.66	5.85	1.39				
Study 1b	Self	6.28	0.83	5.71	1.42	2.70	1.98	5.55	1.76
	Self-and-charity	5.88	1.30	5.26	1.92	3.17	1.67	4.77	1.95
	Charity	5.85	1.39	5.18	1.48	4.18	1.76	5.43	1.50
Study 2	Self	5.95	1.10	6.00	0.80				
	Self-and-charity	5.89	1.45	5.78	1.03				
	Charity	6.00	1.09	5.70	1.15				

Note. Participants' self-reported desire for a positive moral self-regard and their self-reported desire to feel competent were only assessed in Study 1b.

regard. In order to address the possibility that other self-concept concerns could be driving the effects, we also included a measure to assess the extent to which participants' actions were driven by a desire to feel competent.

Method

Participants

We recruited 75 undergraduate and graduate students from two major West Coast universities (36 men, 39 women, $M_{age} = 21.53$). At the same time we were running this experiment there were two other studies in the lab that were using an anagram paradigm that included unsolvable anagrams. We excluded 9 participants (4 men, 5 women) who participated in these other anagram studies because we were concerned that they would be suspicious of our design. Thus, our final sample included 66 participants. Participants received $5.00 for participating in the study plus the opportunity to earn additional money.

Procedure

The procedure was identical to Study 1a, with two exceptions. First, all participants received a stopwatch. Second, participants answered two additional questions after they completed the anagram task. The first question assessed how motivated participants were by a desire for a positive moral self-regard (i.e., "How much was your effort on the anagrams task driven by a desire to feel warm and caring?"). The second question assessed how motivated participants were by a desire to feel competent (i.e., "How much was your effort on the anagrams task driven by a desire to feel smart and competent?"). Participants responded to both questions on a 7-point scale (1 = *not at all*; 7 = *very much*).

Results

Escalation of commitment

We ran a series of chi-square tests to compare the frequency of escalation of commitment across conditions. The pattern of results paralleled the results from Study 1a (see Fig. 1). Participants in the charity condition escalated commitment 73% of the time, which was more frequently than participants in the self condition (who escalated commitment 43% of the time), χ^2 (1, N = 43) = 3.94, p = .024 (one-tailed). Participants in the self-and-charity condition escalated commitment 70% of the time, which also was more frequently than participants in the self condition, χ^2 (1, N = 44) = 3.19, p = .037 (one-tailed). Participants in the charity condition and participants in the self-and-charity condition did not differ in the frequency with which they escalated commitment χ^2 (1, N = 45) = 0.06, p = .82 (two-tailed).

Self-reported desire for a positive moral self-regard

We suggest that a desire for a positive moral self-regard underlies people's tendency to escalate commitment more frequently to courses of action with prosocial aims than to ones with egoistic aims (Hypothesis 2). An ANOVA confirmed that participants' self-reported desire for a positive moral self-regard significantly varied across conditions, $F(2,62) = 3.76$, p = .029 (two-tailed) (see Table 2 for means and standard deviations). Participants in the charity condition reported being more motivated by a desire for a positive moral self-regard than participants in the self condition, $t(62) = 2.55$, p = .005 (one-tailed), and participants in the self-and-charity condition, $t(62) = 1.97$, p = .065 (two-tailed), although this latter difference was marginally significant. Unexpectedly, participants in the self-and-charity condition and participants in the self condition did not differ in the extent to which they reported being motivated by a desire for a positive moral self-regard, $t(62) = 0.84$, p = .196 (one-tailed).

We next ran a binary logistic regression to assess the relationship between participants' self-reported desire for a positive moral self-regard (the proposed mediator) and escalation of commitment. We regressed escalation of commitment on participants' self-reported motivation for a positive moral self-regard. In line with Hypothesis 2, there was a positive relationship between participants' self-reported motivation for a positive moral self-regard and their likelihood of escalating commitment, $B = .39$ $SE = .16$, $Wald = 6.30$, p = .012 (two-tailed).

Mediation analysis

We assessed whether a desire for a positive moral self-regard mediates people's tendency to escalate commitment more frequently to prosocial initiatives than to egoistic initiatives. We followed the guidelines put forth, and used the PROCESS macro developed, by Preacher and Hayes (2008) for testing mediation with a dichotomous outcome variable and a multicategorical independent variable.[2] The analysis involves constructing $k - 1$ dummy variables for the independent variable, where k = the number of categories for the independent variable, and then running the PROCESS macro $k - 1$ times. For each run, one dummy variable is specified as the independent variable and the other dummy variable(s) as the covariate(s). The macro runs a bootstrap analysis and generates a 95% CI for the size of the indirect effort for each comparison. It does

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[2] In order to provide a full analysis of the pattern of results, we tested for mediation between (1) the self condition and the charity condition, (2) the self condition and the self-and-charity condition, and (3) the charity condition and the self-and-charity condition. It should be noted, however, that only the comparison between the charity condition and the self condition met Baron and Kenny's (1986) criteria for establishing statistical mediation as this is the only comparison in which there is a significant effect of the independent variable on both the dependent variable (escalation of commitment) and the proposed mediator (desire for a positive moral self-regard).

not produce a single test of the indirect effect. Rather, it produces a test of the indirect effect for each category relative to a reference category (see Hayes, 2013).

We first tested whether a desire for a positive moral self-regard mediated the difference in the frequency of escalation of commitment between the charity condition and the self condition. The 95% CI for the indirect effect ranged from .05 to 1.44, which did not include zero. This significant indirect effect suggests that a desire for a positive moral self-regard mediated participants' tendency to escalate commitment more frequently to the task when a charity benefitted from their actions than when they alone benefitted from their actions.

We next tested whether a desire for a positive moral self-regard mediated the difference in escalation of commitment between the self-and-charity condition and the self condition. The 95% CI for the indirect effect ranged from −.22 to .86, indicating that a desire for a positive moral self-regard did not mediate the difference in the frequency of escalation of commitment between the self-and-charity condition and the self condition.

Finally, we tested whether a desire for a positive moral self-regard mediated the difference in escalation of commitment between the charity condition and the self-and-charity condition. The 95% CI for the indirect effect ranged from −.01 to 1.09, which suggests that a desire for a positive moral self-regard did not mediate the difference in the frequency of escalation of commitment between these conditions.

Self-reported desire to feel competent

An ANOVA showed that the extent to which participants reported being motivated by a desire to feel competent did not vary across conditions, $F(2, 62) = 1.25$, $p = .29$ (two-tailed) (see Table 2 for means and standard deviations).

Self-reported motivation on the task

Similar to Study 1a, neither participants' self-reported desire to earn money on the task, $F(2, 63) = 0.90$, $p = .41$ (two-tailed), nor their self-reported desire to solve at least eight anagrams, $F(2, 63) = 0.67$, $p = .52$ (two-tailed), varied across conditions (see Table 2 for means and standard deviations).

Discussion

Study 1b replicated many of Study 1a's findings. Participants escalated commitment more frequently when they were engaged in a prosocial initiative than when they were engaged in an egoistic initiative. Participants reported being more motivated by a desire to feel moral when a charity benefited from their performance on a task than when they alone benefitted from it. This desire for a positive moral self-regard mediated the tendency for participants to escalate commitment more frequently in the charity condition than in the self condition.

It should be noted, however, that participants who performed the task on behalf of both themselves and a charity (i.e., participants in the self-and-charity condition) and participants who performed the task on behalf of only themselves (i.e., participants in the self condition) reported being similarly motivated by a desire to feel moral. This finding was unexpected. We speculate that participants in the self-and-charity condition are torn between the motive to earn money for themselves and the motive to feel moral. The presence of these competing motives might minimize the extent to which participants in the self-and-charity condition report being motivated by a desire for a positive moral self-regard. However, the lack of difference between these conditions in participants' reported desire to feel moral limits the conclusions that can be drawn from this study about the relationship between the desire for a positive moral self-regard and escalation of commitment.

Although the results of Study 1b provide some support that a desire for a positive moral self-regard underlies people's tendency to escalate commitment more frequently to courses of action with prosocial aims than to ones with egoistic aims, the findings are limited. First, participants in the self-and-charity condition and participants in the self condition did not differ in their self-reported desire for a positive moral self-regard. Second, the measure of moral self-regard was self-report and, thus, open to self-justification concerns. It is possible that participants said they were motivated on the task by a desire to feel warm and caring simply because they wanted to justify their relatively poor decision making on the task. We conducted Study 2 to help address these limitations and to provide a better test of our proposed mechanism. In Study 2, we measure participants' moral identity prior to the task and assess whether it moderates their tendency to escalate commitment more frequently to prosocial initiatives.

Individual differences in moral identity

People vary in the extent to which possessing a set of moral traits is central to their self-concept such that some people have a strong moral identity and others have a relatively weaker moral identity (Aquino & Reed, 2002; Blasi, 1984; Pratt, Hunsberger, Pancer, & Alisat, 2003). A strong moral identity arises when people tie their self-concept closely to their moral actions, moral commitments, and moral principles (Blasi, 1980; Lapsley & Lasky, 2001). Moral concerns and acting in accordance with one's moral identity play more central roles in the motivational and emotional systems of high moral identifiers than they do in the systems of low moral identifiers (Blasi, 1995). Moral identity therefore relates to moral self-regard in that people who have a strong moral identity attend more to maintaining a positive moral self-regard than do people with a weak moral identity. High moral identifiers often act in ways to maintain a positive moral self-regard because they are motivated to behave in accordance with their schema of a moral person (e.g., Colby & Damon, 1992; Oliner & Oliner, 1988). Indeed, compared to low moral identifiers, high moral identifiers are more likely to engage in efforts to repair their moral self-image after committing a moral transgression. As Mulder and Aquino (2013) demonstrated, high moral identifiers were more likely than low moral identifiers to tell the truth following a lie because telling the truth allowed them to repair their moral self-image after the transgression.

The moderating effect of moral identity

We suggest that a desire for a positive moral self-regard underlies people's tendency to escalate commitment more frequently to prosocial initiatives than to egoistic initiatives. Thus, we expect people who place a high importance on their moral identity to be particularly likely to escalate commitment to prosocial initiatives because they are more concerned than others with having a positive moral self-regard (cf. Monin & Jordan, 2009). We therefore put forth:

Hypothesis 3. Moral identity moderates people's tendency to escalate commitment more frequently to prosocial initiatives than to egoistic initiatives, such that this tendency is stronger among high moral identifiers than it is among low moral identifiers.

People's moral identity is multi-faceted, and each facet may be more or less predictive of people's tendency to escalate commitment to prosocial initiatives. Aquino and Reed (2002) suggest that moral identity is comprised of two dimensions. They reasoned that moral identity is similar to other core aspects of the self in that it is rooted both in one's private inner thoughts, feelings, and principles and in the ways people express their identity through their actions (see Erikson, 1964). The more private and internal dimension of moral identity, which has been labeled internalized moral identity,

captures the extent to which people believe that their moral identity is reflected in their inner thoughts, feelings, and principles. The more public and external dimension of moral identity, which has been labeled symbolized moral identity, relates to people's awareness of themselves as social beings whose actions affect others. It captures the extent to which people believe their moral identity is rooted in their actions and day-to-day activities.

There are reasons to believe that the internalized and symbolized dimension of moral identity might both relate positively to people's tendency to escalate commitment to prosocial initiatives given that the two dimensions both capture the extent to which possessing moral traits is central to one's self-concept (Aquino & Reed, 2002). People high in both symbolized and internalized moral identity report volunteering more frequently and experiencing greater internal satisfaction from volunteering compared to people low in symbolized and low in internalized moral identity, respectively (Aquino & Reed, 2002). With that said, there are reasons to believe that the internalization dimension would relate more strongly to the tendency to escalate commitment than would the symbolization dimension. In particular, scholars have argued that internalization is theoretically more consistent with the principle of moral motivation than is symbolization (Reynolds & Ceranic, 2007, p. 1613). Supporting this possibility, Aquino and Reed (2002) found in one study that the internalization dimension, but not the symbolization dimension, predicted the number of cans high school students donated to their classroom's canned food drive.

The prediction regarding the relationship between symbolization and escalation of commitment rests to some degree on the particular type of moral motivation captured by this dimension of moral identity. Given that symbolization has been shown to predict people's self-reported volunteer hours, but not their actual charitable behaviors, it may capture primarily people's self-presentational motivations. However, if the symbolization dimension taps into Erikson's second property of identity, which Aquino and Reed (2002) summate as "identity means being true to oneself in action" (p. 1427), there is reason to expect that the symbolization dimension would relate more strongly than the internalization dimension to the tendency to escalate commitment to prosocial courses of action. From this perspective, people who are high in symbolized moral identity might feel a strong need to align their internal beliefs with their external actions in order to maintain a positive moral self-regard (Aquino & Reed, 2002). If this were the case then the motivation to boost one's moral self-regard by continuing a moral action, even when that action proves unfruitful, may be particularly strong among people that tie their moral identity to their actions (i.e., people high in symbolized moral identity). High moral symbolizers may therefore be particularly susceptible to escalating commitment to prosocial initiatives, as their moral self-regard is rooted strongly in their social behaviors. As Mayer, Aquino, Greenbaum, and Kuenzi (2012), reasoned, after they observed that symbolized moral identity was a stronger predictor than internalized moral identity of managers' ethical behaviors at work, symbolized moral identity may be more predictive than internalized moral identity of people's direct and observable moral behaviors. Thus, there are also reasons to believe that symbolized moral identity may be a stronger predictor of escalation of commitment to prosocial initiatives than internalized moral identity.

Study 2

The goal of Study 2 is to provide a stronger test of our proposed mediating mechanism. If a desire for a positive moral self-regard underlies people's tendency to escalate commitment more frequently to prosocial initiatives than to egoistic initiatives, then this effect should be stronger among high moral identifiers and weaker among low moral identifiers. We tested this moderation prediction by assessing participants' moral identity using Aquino and Reed's (2002) measures of internalized and symbolized moral identity.

Method

Participants

We recruited 83 graduate and undergraduate students from a major West Coast university to participate in this study (49 women, 34 men, M_{age} = 20.95). Participants received $10.00 for participating in the study as well as a chance to earn more money. We excluded two participants who failed to follow instructions because they started the task before they were instructed to do so. We also excluded one participant who thought the word associations were unsolvable and that the hints were tricks. Thus, our final sample consisted of 80 participants.

Design

Study 2 differed from Studies 1a and 1b in two ways. First, the task involved trying to solve 10 word associations instead of 10 anagrams. As noted in Study 1b, other researchers at the university were running studies that required participants to try to solve unsolvable anagrams. We switched the content of the task in order to increase the novelty of the task and to reduce any suspicion among the participants that our anagram task was rigged. Second, participants completed a measure of moral identity prior to performing the task. We embedded the Aquino and Reed's (2002) measure in the Big Five Personality Inventory (John & Srivastava, 1999) in order to minimize suspicion about the connection between the moral identity measure and the word associations task.

Participants completed the Remote Associates Task (RAT) (Mednick, 1962). They were tasked with trying to identify a fourth word that connected to each of three other words (see Appendix B for the 10 word associations that were used). After participants completed two trial word associations, they learned that their goal was to try to solve 10 word associations in order to earn money. The amount of money participants earned depended on the amount of time they spent on the task and the number of word associations that they solved. Participants again received three hints. An additional 45 s was added to participants' time for each hint they opened. The payoff matrix was identical to the payoff matrix used in the previous studies (see Appendix A).

We manipulated the prosocial aims of the task in the same way we did in the previous studies. We randomly assigned participants to the self condition, the charity condition, or the self-and-charity condition. [3]

Measures

We included all of the measures used in Study 1a as well as Aquino and Reed's (2002) moral identity measure. In contrast to Study 1b, we did not measure either participants' self-reported desire for a positive moral self-regard or their self-reported desire to feel competent.

Moral identity

We measured moral identity with the internalization and symbolization subscales developed by Aquino and Reed (2002). Par-

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[3] We initially ran this study as a comparison between only the charity condition and the self condition. The data for these two conditions were collected in December 2012. The data for the self-and-charity condition were collected approximately six months later in June 2013. All participants were recruited from the same participant pool at the same university.

ticipants were asked to think about a series of moral traits and then answer questions about these traits. Specifically, participants read:

> Listed below are some characteristics that may describe a person: *caring, compassionate, fair, friendly, generous, helpful, hardworking, honest,* and, *kind.* The person with these characteristics could be you or it could be someone else. For a moment, visualize in your mind the kind of person who has these characteristics. Imagine how that person would think, feel, and act. When you have a clear image of what this person would be like, answer the following questions.

Participants then answered five questions designed to capture their internalized moral identity (α = .83) and five questions designed to capture their symbolized moral identity (α = .63). An example item from the internalized dimension of moral identity is as follows: "Being someone who has these characteristics is an important part of who I am." An example item from the symbolized dimension of moral identity is as follows: "I am actively involved in activities that communicate to others that I have these characteristics." The subscales were significantly correlated, r = .34, p = .002 (two-tailed).

Results

Escalation of commitment

Replicating the results from Studies 1a and 1b, participants in the charity condition escalated commitment 70% of the time, which was significantly more frequently than participants in the self condition, who escalated commitment 30% of the time, χ^2 (1, N = 43) = 6.70, p = .005 (one-tailed). Unlike in Studies 1a and 1b, participants in the charity condition escalated commitment more frequently than did participants in the self-and-charity condition, who escalated commitment 46% of the time, χ^2 (1, N = 60) = 3.20, p = .037 (two-tailed). Moreover, unlike in the previous studies, participants in the self-and-charity condition and participants in the self condition did not differ in the frequency with which they escalated commitment, χ^2 = (1, N = 57) = 1.37, p = .14 (one-tailed) (see Fig. 1).

Moderation analysis

We tested the hypothesized interactions between moral identity and the aims of the initiative by following the guidelines of Aiken and West (1991) for testing interactive effects between categorical and continuous predictor variables. We mean centered the internalized and the symbolized moral identity subscales. We then created two dummy coded variables to represent the charity condition and the self-and-charity condition. We specified the self condition as the comparison condition. We created the following four interaction terms by multiplying the moral identity subscales and the two dummy variables: (1) symbolized moral identity × charity condition (this tests whether symbolized moral identity moderates differences in the frequency of escalation of commitment between the self condition and the charity condition); (2) symbolized moral identity × self-and-charity condition (this tests whether symbolized moral identity moderates differences in the frequency of escalation of commitment between the self condition and the self-and-charity condition); (3) internalized moral identity × charity condition (this tests whether internalized moral identity moderates differences in the frequency of escalation of commitment between the self condition and the charity condition); (4) internalized moral identity × self-and-charity condition (this tests whether internalized moral identity moderates differences in the frequency of escalation of commitment between the self condition and the self-and-charity condition). Finally, we regressed escalation of commitment (0 = did not escalate

commitment, 1 = escalated commitment) on symbolized moral identity, internalized moral identity, the two dummy variables for condition, and the interaction terms.[4] The results are presented in Table 3.

Moderation by symbolized moral identity

We suggest that people high in moral identity escalate commitment more frequently when a task has prosocial aims than when it has egoistic aims, but that the aims of the task have relatively little effect on escalation of commitment for people low in moral identity. We first tested this prediction by looking at the symbolized moral identity × charity interaction. In support of Hypothesis 3, there was a significant interaction between participants' symbolized moral identity and whether they performed the task on behalf of a charity or on behalf of themselves on their likelihood of escalating commitment, B = 5.90, SE = 2.79, $Wald$ = 4.46, p = .035 (two-tailed) (see Fig. 2).

We probed the nature of the interaction by looking at the effect of playing for a charity on escalation of commitment for participants low in symbolized moral identity (i.e., one-standard deviation below the mean in symbolized moral identity) and for participants high in symbolized moral identity (i.e., one-standard deviation above the mean in symbolized moral identity) (see Aiken & West, 1991). Participants high in symbolized moral identity were more likely to escalate commitment in the charity condition than they were in the self condition, B = 4.58, SE = 1.77, $Wald$ = 6.65, p = .01 (two-tailed). On the other hand, participants low in symbolized moral identity were just as likely to escalate commitment in the charity condition as they were in the self condition, B = −2.78, SE = 2.08, $Wald$ = 1.78, p = .18 (two-tailed).

We found a similar pattern of results when we looked at the symbolized moral identity × self-and-charity interaction, B = 2.86, SE = 1.38, $Wald$ = 4.27, p = .039 (two-tailed). Participants high in symbolized moral identity were more likely to escalate commitment in the self-and-charity condition than they were in the self condition, B = 2.39, SE = .1.09, $Wald$ = 4.76, p = .029 (two-tailed). Participants low in symbolized moral identity, however, were just as likely to escalate commitment in the self-and-charity condition as they were in the self condition, B = −1.12, SE = 1.11, $Wald$ = 1.11, p = .29 (two-tailed).

Moderation by internal moral identity

We next tested Hypothesis 3 by looking at the potential moderating effect of internalized moral identity. There was neither a significant internalized moral identity × charity interaction, B = −1.64, SE = 1.95, $Wald$ = 0.71, p = .40 (two-tailed), nor a significant internalized moral identity × self-and-charity interaction on participants' likelihood of escalating commitment, B = 1.18, SE = 1.25, $Wald$ = .89, p = .35. Thus, whereas symbolized moral identity motivated escalation of commitment to a prosocial initiative, internalized moral identity did not.

Self-reported motivation on the task

As shown in Table 2, across the three conditions, participants reported being similarly motivated to solve at least eight word associations, $F(2,77)$ = 0.05, p = .95, and to earn money on the task, $F(2,77)$ = 0.51, p = .60. Neither participants' symbolized nor internalized moral identity moderated these effects.

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[4] We also ran a model in which we specified the charity condition as the comparison condition in order to see whether differences in the frequency of escalation of commitment between the charity condition and the self-and-charity condition were moderated by moral identity. We found no evidence that either symbolized moral identity or internalized moral identity moderated differences in the frequency of escalation commitment between these conditions, all p-values for the interaction terms were greater than p = .17 (two-tailed).

Table 3
Results from a binary logistic regression predicting participants' likelihood of escalating commitment from Study 2.

	B	SE	Wald	p Value
Charity	0.90	0.84	1.14	.290
Self-and-charity	0.61	0.69	0.77	.380
Internalized moral identity	−0.18	0.73	0.06	.800
Symbolized moral identity	0.32	0.73	0.19	.660
Internalized moral identity × Charity	−1.64	1.95	0.71	.400
Internalized moral identity × Self-and-charity	1.18	1.25	0.89	.350
Symbolized moral identity × Charity	5.90	2.79	4.46	.035
Symbolized moral identity × Self-and-charity	2.86	1.38	4.27	.039

Note. The results presented are from the final step of a hierarchical binary logistic regression. The dependent variable of escalation of commitment was coded as 0 = did not escalate commitment, and 1 = escalated commitment. The dummy variables for charity and self-and-charity were coded as 0 and 1 with the self condition serving as the condition of reference. The internalized moral identity and symbolized moral identity were centered on their mean.
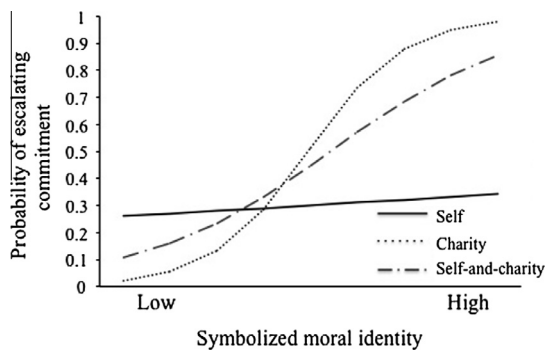

Fig. 2. Participants' probability of escalating commitment as a function of their symbolized moral identity and whether they performed a task to earn money for themselves, a charity, or themselves and a charity from Study 2.

Discussion

Study 2 provides further support for the idea that a desire for a positive moral self-regard underlies people's tendency to escalate commitment more frequently to initiatives with prosocial aims than to initiatives with egoistic aims. The tendency to escalate commitment more frequently to a prosocial initiative than to an egoistic initiative was stronger among people high in moral identity and weaker among people low in moral identity. Interestingly, the symbolized moral identity subscale, and not the internalized moral identity subscale, drove this moderation.

There were a priori reasons to expect that both internalized and symbolized moral identity would moderate people's tendency to escalate commitment more frequently to prosocial initiatives than to egoistic initiatives. In order for high moral symbolizers to maintain a positive moral self-regard it likely is necessary for them to express their identity through their actions (Aquino & Reed, 2002). This suggests that escalation of commitment to prosocial courses of action may be particularly prevalent among people who either chronically or temporally seek to express their moral identity through their actions.

Given that symbolized moral identity has been linked previously to self-presentational concerns (Aquino & Reed, 2002), the moderation results from Study 2 may evoke the following question: Is it a desire to boost one's moral self-regard or a strategic desire to appear moral to others that underlies people's tendency to escalate commitment more frequently to prosocial initiatives than to egoistic ones? It seems unlikely that this tendency is driven primarily by the self-presentational desire to appear moral to others because the task took place in a relatively private context. Participants completed the word associations task alone in a room in an experiment conducted by an experimenter unknown to them. Moreover, although the money they earned on the task

was donated in their name to the charity of their choice, they had no contact with the charity and the charity received no information about the effort the participant expended on the task.

Thus, if the symbolization dimension of moral identity primarily captures the strategic desire to earn others' moral approval then the moderation by symbolized moral identity is a bit surprising because there was little opportunity in this study for participants to earn others' moral approbation. However, this moderation makes more sense if the symbolization dimension captures people's need for concordance between their internal beliefs and their external actions. In this case, the people with the strongest urge to demonstrate their morality through their actions were most affected by the prosocial implications of the task.

General discussion

People were more likely to escalate commitment to a failing initiative when the initiative had prosocial aims than when it had egoistic aims. Specifically, people exerted greater effort but generated fewer financial benefits when they worked on behalf of a charity than when they worked on behalf of only themselves.

In all three studies, participants in the charity condition escalated commitment more frequently than did participants in the self condition. The comparison with the self-and-charity condition, however, provided less robust results. In two of the three studies, participants in the self-and-charity condition escalated commitment more frequently than did participants in the self condition and with a similar frequency as participants in the charity condition. In contrast, in Study 2, participants in the self-and-charity condition escalated commitment less frequently than did participants in the charity condition and non-significantly more frequently than did participants in the self condition.

The inconsistency in the frequency of escalation of commitment in the self-and-charity condition may stem from the fact that participants in this condition have both prosocial and egoistic goals. The goal to earn money for oneself and the goal to have a positive moral self-regard might compete. These competing goals may have led participants in the self-and-charity condition in Study 2 to escalate commitment less frequently than did participants in the charity condition. However, although the pattern of significance differs among the three studies, the relative ordering of means by condition was consistent across the studies. Moreover, an analysis of the combined data from all three studies indicated that participants in the self-and-charity condition escalated commitment significantly more frequently than did participants in the self condition and with a similar frequency as participants in the charity condition.

Participants' self-reported desire to earn money did not differ across conditions, nor did their expressed desire to feel competent; therefore, these differences did not account for the differing tendencies to escalate commitment across conditions. Rather,

participants seemed to escalate commitment more frequently in the charity condition than they did in the self condition because exerting effort for a prosocial cause allowed them to boost their moral self-regard in a way that exerting effort for their own financial benefit did not. Study 1b showed that a desire for a positive moral self-regard mediated participants' tendency to escalate commitment more frequently in the charity condition than in the self condition. Study 2 demonstrated that participants high in symbolized moral identity were more likely to escalate commitment to a prosocial initiative than to an egoistic initiative, whereas participants low in symbolized moral identity were not. These findings suggest that a desire for a positive moral self-regard underlies people's tendency to escalate commitment more frequently to initiatives with prosocial aims than to initaitives with egoistic aims.

There was no evidence that participants' internalized moral identity moderated their tendency to escalate commitment more frequently to prosocial initiatives than to egoistic initiatives. The moderation by symbolized moral identity and the lack of moderation by internalized moral identity sheds light on the specific type of motivation that underlies people's tendency to escalate to commitment to failing prosocial initiatives. Symbolized and internalized moral identity both capture the extent to which possessing moral traits is central to people's self-concept. Symbolized moral identity, however, captures people's specific desire to have their moral identity aligned with, and reflected in, their social actions (Aquino & Reed, 2002). It likely is this specific desire that underlies people's tendency to escalate commitment to prosocial initiatives given that symbolized moral identity emerged as a predictor of escalation of commitment to prosocial courses of action, but internalized moral identity did not.

People might interpret symbolized moral identity as being related to the strategic pursuit of moral identity. Thus, it might seem that people invest effort in failing prosocial initiatives because they want to appear moral to others and not because they personally want to feel moral. Although people high in symbolized moral identity seek to express their moral identity through their behaviors, it is not necessarily the case that they do this out of a sole desire to appear moral to others. The present findings do not speak definitively about whether it is a desire to appear moral or a desire to feel moral that drives people to escalate commitment to failing prosocial initiatives.

One way to assess whether it is the strategic desire to appear moral that motivates escalation of commitment to prosocial initaitves would be have people anonymously engage in a prosocial initiative. Although participants in our studies completed the task alone in a private room and were supervised by an experimenter whom they did not know, their behavior on the task was not completely anonymous; the experimenter recorded the time they spend on the task, the number of anagrams they solved, and the amount of money they earned. If participant's actions were anonymous, and they were still more likely to escalate commitment to prosocial initiatives than to egoistic initiatives, this would counter the idea that it is a strategic desire for others' moral approbation that drives escalation of commitment to prosocial initiatives. Moreover, if a similar moderation pattern with symbolized moral identity were found in this annonymous context, it may suggest that the Aquino & Reed's (2002) symbolization measure of moral identity taps more than self-presentational concerns. This measure may also tap into Erikson's (1964) view that identity is about being true to oneself not only at one's core, but also in one's actions.

In future research, it also would be worth examining whether the tendency to escalate commitment to failing prosocial initiatives is exacerbated when efforts are publicly observable. When effort is publicly observable, people may be even more likely to focus on the effort they put forth on the initiative because observers appear to grant moral credit based on the effort people exert to help others

and not necessarily on the amount of good they do for others (Olivola, 2010). Consequently, people may be even more reticent to cease working on failing prosocial initiatives (even if doing so would be better for the beneficiary) when their actions are public.

Theoretical and practical implication

Our findings contribute to the collective understanding of moral behavior and moral decision making in a couple of ways. Chiefly, they indicate that people needing to demonstrate their morality to themselves or to others may exert effort beyond a point that would be considered economically rational because exerting effort on prosocial initiatives boosts their moral self-regard regardless of whether their efforts actually are helpful. Consequently, a desire for a positive moral self-regard can lead people to generate fewer benefits for people in need than could be generated if their decision-making were not motivated by this desire. The present findings therefore help to explain why people continue to invest in failing prosocial courses of action.

Because the desire for a positive moral self-regard makes people more susceptible to escalation of commitment, employees who work at non-profits and other organizations with pro-social aims may be particularly susceptible to escalation of commitment. Consequently, it may be particularly prudent for managers in these organizations to implement strategies designed to reduce escalation of commitment such as separating the people carrying out an initiative from the people evaluating its economic viability (Drummond, 1995; Garland, Sandefur, & Rogers, 1990; Heng, Tan, & Wei, 2003; Keil, Depledge, & Rai, 2007; Ross & Staw, 1993).

The finding that a desire for a positive moral self-regard increases people's likelihood of escalating commitment to prosocial courses of action has potential implications for understanding who is the most likely to escalate commitment to failing prosocial initiatives. We find in Study 2 that the people who closely tie their moral identity to their actions (i.e. people scoring highly on Aquino and Reed's (2002) symbolized moral identity subscale) are also the most likely to persist on a prosocial course of action beyond a point that is economically rational. Thus, in some cases, it may be the people who care the most about maintaining a positive moral self-regard who are the least able to upend their efforts on a prosocial initiative when it fails to actually help its intended beneficiaries.

Finally, the findings are relevant for organizations that seek to increase employees' motivation by emphasizing the prosocial implications of employees' work. Emphasizing the prosocial implication of employees' work often increases employees' motivation and performance because employees' derive a greater sense of meaning from their work when they focus on its impact on others (Grant, 2008; Grant et al., 2007). The present findings do not challenge this idea; rather, they point to an important consequence that may arise when people are engaged in a prosocial initiative that is ineffective. Namely, they may be more likely to escalate commitment to it.

Limitations and future directions

Our studies are not without limitations. For instance, whereas the experimental paradigm we used has been previously established as an internally valid assessment of escalation of commitment (Ku, 2008a, 2008b), its external validity is more suspect. Compared to more real-world investment decisions, the stakes in the study were relatively small. The consequence of escalating commitment to the task was earning little or no extra money. The consequences of escalating commitment, however, are often quite dire (Staw, 1981). If the stakes were higher, it is possible that people would be more motivated by a desire to produce the most benefit for the intended beneficiary and less motivated by a desire

for a positive moral regard. With that said, although the presence of higher stakes might reduce the overall rate of escalation of commitment, we would not necessarily expect the higher stakes to affect the behavior of people engaged in prosocial initiatives and the behavior of people engaged in egoistic initiatives differently.

Another potential limitation of the present research is that the rewards from the task were more tangible and immediate when participants performed a task on their own behalf than when they performed the task on behalf of a charity. Participants in the self condition were paid for their performance at the end of the study, whereas participants in the charity condition did not witness their charity receive the money they earned for it. This difference alone, however, cannot account for the pattern of results. Similar to participants in the self condition, participants in the self-and-charity condition were paid for their performance at the end of the study. Nevertheless, participants in this self-and charity condition escalated commitment more frequently than participants in the self condition.

Whereas the present work looked at the effect of an initiative's prosocial aims on escalation of commitment, future research might benefit from looking at the effect of escalation of commitment on people's perceptions of the prosocial implications of their actions. People might emphasize the prosocial implications of their actions as a means of justifying their continued commitment to a failing course of action. As Jordan and Monin's (2008) work on the "sucker-to-saint" effect demonstrates, people moralize their participation in an unrewarding act when another person declines to participate in that unrewarding act in order to make themselves feel better about their decision to participate. Future research could examine if people also moralize their investment in course of action when they realize that this investment was unhelpful.

It would also be worthwhile to examine how people's ethical predispositions, which are defined as the combination of frameworks and heuristics used in making moral judgments (Brady & Wheeler, 1996; Reynolds, 2006; Schminke, Ambrose, & Noel, 1997), affect people's tendency to escalate commitment to prosocial initiatives. We would propose that because people with teleological, or consequences-based, ethical predispositions rely more heavily on consequences in their ethical decision-making than do people with deontological, or obligation-based, ethical predispositions, they may use consequences as the primary metric by which they judge their own behavior. If so, they might be less likely to escalate commitment to prosocial initiatives that fail to generate positive consequences for the intended beneficiaries.

Given that people are more likely to escalate commitment to prosocial initiatives than to egoistic initiatives, future research identifying the factors that help people to de-escalate commitment to prosocial initiatives may be useful. One way to help people de-escalate commitment to prosocial initiatives would be to provide decision makers with alternative opportunities for substantiating their moral self-regard. For example, giving people an opportunity to volunteer their time or to donate to a charity on a secondary issue before deciding how much time, effort, and money to invest in the primary prosocial initiative may reduce subsequent escalation of commitment. It may do so because people who have already demonstrated that they are moral may have less need to exert effort to maintain a positive moral self-regard (cf., Monin & Miller, 2001; Sivanathan, Molden, Galinsky, & Ku, 2008). However, providing this affirmation opportunity may inadvertently increase escalation of commitment as it might activate or remind people of their desire to be moral (cf. Sivanathan et al., 2008).

Conclusion

People undertake prosocial initiatives for a variety of reasons—chief among them likely is the desire to benefit people in need. Given this desire, why do people continue to invest in failing prosocial initiatives that produce few if any benefits for the intended beneficiary? As the findings of this paper suggest, this continued investment in failing prosocial initiatives can arise because sometimes the motive to feel the most moral can trump the motive to do the most good.

Appendix A

The 10 anagrams were used in the escalation of commitment paradigm in Studies 1a and 1b. The correct answers are in parentheses

(1)	A B D L N	(B L A N D)
(2)	I L O P T	(P I L O T)
(3)	B E I Q S U	(B I S Q U E)
(4)	E N O P R S	(P E R S O N)
(5)	A A G M M R R	(G R A M M A R)
(6)	A I I M N T V	(V I T A M I N)
(7)	C C E E M M O R	(C O M M E R C E)
(8)	A A G I L L O R T	(A L L I G A T O R)
(9)	A B D E G G I R R U	(B U D G E R I G A R)
(10)	A E F O O P R R T W	(W A T E R P R O O F)

The 10 word associations that were used in the escalation of commitment paradigm in Study 2. The correct answers are in parentheses.

(1)	NIGHT	WRIST	STOP	(WATCH)
(2)	FOUNTAIN	BAKING	POP	(SODA)
(3)	CANE	DADDY	PLUM	(SUGAR)
(4)	MAIN	SWEEPER	LIGHT	(STREET)
(5)	SAGE	PAINT	HAIR	(BRUSH)
(6)	BLANK	LIST	MATE	(CHECK)
(7)	READING	SERVICE	STICK	(LIP)
(8)	HOLD	PRINT	STOOL	(FOOT)
(9)	HUNGRY	ORDER	BELT	(MONEY)
(10)	LAND	HAND	HOUSE	(FARM)

Appendix B

The payoff matrices participants received as a function of their condition.

Self condition

Time spent solving anagarms (in minutes)	Initial stake (what you get if you do not correctly unscramble at least 8 of the 10 anagrams)	Jackpot (what you get if you correctly unscramble at least 8 of the 10 anagrams)
Less than 3	$3.00	$8.00
3 or more but less than 4	$2.70	$5.75
4 or more but less than 5	$2.10	$3.50
5 or more but less than 6	$2.10	$2.10

Appendix B (*continued*)

Time spent solving anagarms (in minutes)	Initial stake (what you get if you <u>do not</u> <u>correctly</u> unscramble at least 8 of the 10 anagrams)	Jackpot (what you get if you <u>correctly</u> unscramble at least 8 of the 10 anagrams)
6 or more but less than 7	$1.80	$1.60
7 or more but less than 8	$1.50	$1.20
Sor more but less than 9	$1.20	$1.00
9 or more but less than 10	$0.90	$0.75
10 or more but less than 11	$0.60	$0.50
11 or more but less than 12	$0.30	$0.25
12 or more	$0.00	$0.00

Charity condition

Time spent solving anagarms (in minutes)	Initial stake (what your charity sets if you <u>do not</u> <u>correctly</u> unscramble at least 8 of the 10 anagrams)	Jackpot (what your charity gets if you <u>correctly</u> unscramble at least 8 of the 10 anagrams)
Less than 3	$3.00	$8.00
3 or more but less than 4	$2.70	$5.75
4 or more but less than 5	$2.40	$3.50
5 or more but less than 6	$2.10	$2.10
6 or more but less than 7	$1.80	$1.60
7 or more but less than S	$1.50	$1.20
8 or more but less than 9	$1.20	$1.00
9 or more but less than 10	$0.90	$0.75
10 or more but less than 11	$0.60	$0.50
11 or more but less than 12	$0.30	$0.25
12 or more	$0.00	$0.00

Self-and-charity condition

Time spent solving anagarms (in minutes)	Initial stake (what you and the charity get if you <u>do not</u> <u>correctly</u> unscramble at least 8 of the 10 anagrams)		Jackpot (what you and the charity get if you <u>correctly</u> unscramble at least 8 of the 10 anagrams)	
	You	Charity	You	Charity
Less than 3	$3.00	$3.00	$8.00	$8.00
3 or more but less than 4	$2.70	$2.70	$5.75	$5.75
4 or more but less than 5	$2.40	$2.40	$3.50	$3.50
5 or more but less than 6	$2.10	$2.10	$2.10	$2.10
6 or more but less than 7	$1.80	$1.80	$1.60	$1.60
7 or more but less than 8	$1.50	$1.50	$1.20	$1.20
S or more but less than 9	$1.20	$1.20	$1.00	$1.00
9 or more but less than 10	$0.90	$0.90	$0.75	$0.75

Appendix B (*continued*)

Time spent solving anagarms (in minutes)	Initial stake (what you and the charity get if you <u>do not</u> <u>correctly</u> unscramble at least 8 of the 10 anagrams)		Jackpot (what you and the charity get if you <u>correctly</u> unscramble at least 8 of the 10 anagrams)	
	You	Charity	You	Charity
10 or more but less than 11	$0.60	$0.60	$0.50	$0.50
11 or more but less than 12	$0.30	$0.30	$0.25	$0.25
12 or more	$0.00	$0.00	$0.00	$0.00

References

Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Sage.

Aquino, K., Freeman, D., Reed, A., Lin, V., & Felps, W. (2009). Testing a social cognitive model of moral behavior: The interactive influence of situations and moral identity centrality. *Journal of Personality and Social Psychology, 97*, 123–141.

Aquino, K., McFerran, B., & Laven, M. (2011). Moral identity and the experience of moral elevation in response to acts of uncommon goodness. *Journal of Personality and Social Psychology, 100*, 703–718.

Aquino, K., & Reed, A. (2002). The self-importance of moral identity. *Journal of Personality and Social Psychology, 83*, 1423–1440.

Aronson, E. (1969). The theory of cognitive dissonance: A current perspective. *Advances in Experimental Social Psychology, 4*, 1–34.

Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*, 1173–1182.

Bastian, B., Jetten, J., & Fasoli, F. (2011). Cleansing the soul by hurting the flesh: The guilt- reducing effects of pain. *Psychological Science, 22*, 334–335.

Baumeister, R. F., & Exline, J. J. (1999). Virtue, personality, and social relations: Self-control as the moral muscle. *Journal of Personality, 67*, 1165–1194.

Bazerman, M. H., Beekun, R. I., & Schoorman, F. D. (1982). Performance evaluation in a dynamic context: A laboratory study of the impact of a prior commitment to the ratee. *Journal of Applied Psychology, 67*, 873–876.

Blasi, A. (1980). Bridging moral cognition and moral action: A critical review of the literature. *Psychological Bulletin, 88*, 1–45.

Blasi, A. (1984). Moral identity: Its role in moral functioning. In W. M. Kurtines & J. L. Gewirtz (Eds.), *Morality, moral behavior, and moral development*. New York: Wiley.

Blasi, A. (1995). Moral understanding and the moral personality: The process of moral integration. In W. M. Kurtines & J. L. Gewirtz (Eds.), *Moral development: An introduction* (pp. 229–253). Needham Heights, MA: Allyn & Bacon.

Brady, F. N., & Wheeler, G. E. (1996). An empirical study of ethical predispositions. *Journal of Business Ethics, 15*, 927–940.

Brockner, J. (1992). The escalation of commitment to a failing course of a action: Toward theoretical progress. *The Academy of Management Review, 17*, 39–61.

Colby, A., & Damon, W. (1992). *Some do care: Contemporary lives of moral commitment*. New York, NY: Free Press.

Cormack, M. (Ed.). (2002). *Sacrificing the self: Perspectives on martyrdom and religion*. Oxford: Oxford University Press.

Darling-Hammond, L., Holtzman, D. J., Gatlin, S. J., & Vasquez Heilig, J. (2005). Does teacher preparation matter? Evidence about teacher certification, Teach for America, and teacher effectiveness. *Education Policy Analysis Archives, 13*, 1–48.

Drummond, H. (1995). De-escalation in decision making: A case of a disastrous partnership. *Journal of Management Studies, 41*, 99–110.

Dunning, D. (2007). Self-image motives and consumer behavior: How sacrosanct self-beliefs sway preferences in the marketplace. *Journal of Consumer Psychology, 17*, 237–249.

Erikson, E. H. (1964). *Insight and responsibility: Lectures on the ethical implications of psychoanalytic insight*. New York, NY: W.W. Norton & Company.

Foster, W., & Bradach, J. (2005). Should nonprofits seek profits. *Harvard Business Review, 83*, 92–100.

Garland, H., Sandefur, C. A., & Rogers, A. C. (1990). De-escalation of commitment in oil exploration. When sunk costs and negative feedback coincide. *Journal of Applied Psychology, 75*, 721–727.

Grant, A. M. (2008). Does intrinsic motivation fuel the prosocial fire? Motivational synergy in predicting persistence, performance, and productivity. *Journal of Applied Psychology, 93*, 48–58.

Grant, A. M., Campbell, E. M., Chen, G., Cottone, K., Lapedis, D., & Lee, K. (2007).

Impact and the art of motivation maintenance: The effects of contact with beneficiaries on persistence behavior. *Organizational Behavior and Human Decision Processes, 103*, 53–67.

Halpern, R. (2002). A different kind of child development institution: The history of after-school programs for low income children. *Teachers College Record, 104*, 178–211.

Hardy, C. L., & Van Vugt, M. (2006). Nice guys finish first: The competitive altruism hypothesis. *Personality and Social Psychology Bulletin, 32*, 1402–1413.

Hayes, A. (2013, August 27). *Frequently asked questions*. <www.afhayes.com>. <http://www.afhayes.com/macrofaq.html> (Retrieved 27.08.13).

Heng, C., Tan, B., & Wei, K. (2003). De-escalation of commitment in software projects: Who matters? What matters? *Information and Management, 41*, 99–110.

Inbar, Y., Pizarro, D. A., Gilovich, T., & Ariely, D. (2013). Moral masochism: On the connection between guilt and self-punishment. *Emotion, 13*, 14–18.

John, O. P., & Srivastava, S. (1999). The Big Five trait taxonomy: History, measurement, and theoretical perspectives. In L. A. Pervin & O. P. John (Eds.), *Handbook of personality: Theory and research* (2nd ed., pp. 102–138). New York: Guilford.

Jones, L. V. (1952). Tests of hypotheses: One-sided vs. two-sided alternatives. *Psychological Bulletin, 49*, 43–46.

Jones, L. V. (1954). A rejoinder on one-tailed tests. *Psychological Bulletin, 51*, 585–586.

Jones, T. M., & Ryan, L. V. (1997). The link between ethical judgment and action in organizations: A moral approbation approach. *Organization Science, 8*, 663–680.

Jones, T. M., & Ryan, L. V. (1998). The effect of organizational forces on individual morality: Judgment, moral approbation, and behavior. *Business Ethics Quarterly, 8*, 431–445.

Jordan, A. H., & Monin, B. (2008). From sucker to saint moralization in response to self-threat. *Psychological Science, 19*, 809–815.

Jordan, J., Mullen, E., & Murnighan, J. K. (2011). Striving for the moral self: The effects of recalling past moral actions on future moral behavior. *Personality and Social Psychology Bulletin, 37*, 701–713.

Keil, M., Depledge, G., & Rai, A. (2007). Escalation: The role of problem recognition and cognitive bias. *Decision Sciences, 38*, 391–4221.

Kimmel, H. D. (1957). Three criteria for the use of one-tailed tests. *Psychological Bulletin, 54*, 351–353.

Ku, G. (2008a). Before escalation: Behavioral and affective forecasting in escalation of commitment. *Personality and Social Psychology Bulletin, 34*, 1477–1491.

Ku, G. (2008b). Learning to de-escalate: The effects of regret in escalation of commitment. *Organizational Behavior and Human Decision Processes, 105*, 221–232.

Laczko-Kerr, I., & Berliner, D. C. (2002, September 6). The effectiveness of teach for America and other under-certified teachers on student academic achievement: A case of harmful public policy. *Education Policy Analysis Archives, 10*(37). http://epaa.asu.edu/epaa/v10n37/ (Retrieved 27.08.13).

Ladieu, G., Hanfmann, E., & Dembo, T. (1947). Studies in adjustment to visible injuries: Evaluation of help by the injured. *Journal of Abnormal and Social Psychology, 42*, 169–192.

Lapsley, D. K., & Lasky, B. (2001). Prototypic moral character. *Identity: An International Journal of Theory and Research, 1*, 345–363.

Lowery, B. S., Chow, R. M., & Knowles, E. D. (2012). Paying for positive group-esteem: How inequity frames affect dominant-group members' responses to redistributive policies. *Journal of Personality and Social Psychology, 102*, 323–336.

Lynam, D. R., Milich, R., Zimmerman, R., Novak, S. P., Logan, T. K., Martin, C., et al. (1999). Project DARE: No effects at 10-year follow-up. *Journal of Consulting and Clinical Psychology, 67*, 590–593.

MacKillop, J., Lisman, S. A., Weinstein, A., & Rosenbaum, D. (2003). Controversial treatments for alcoholism. In S. O. Lilienfeld, S. J. Lynn, & J. M. Lohr (Eds.), *Science and pseudoscience in clinical psychology* (pp. 273–305). New York: Guilford Press.

Mayer, D. M., Aquino, K., Greenbaum, R. L., & Kuenzi, M. (2012). Who displays ethical leadership, and why does it matter? An examination of antecedents and consequences of ethical leadership. *Academy of Management Journal, 55*, 151–171.

Mazar, N., Amir, O., & Ariely, D. (2008). The dishonesty of honest people: A theory of self- concept maintenance. *Journal of Marketing Research, 45*, 633–644.

Mednick, S. (1962). The associative basis of the creative process. *Psychological Review, 69*, 220–232.

Merritt, A. C., Effron, D. A., & Monin, B. (2010). Moral self-licensing: When being good grees us to be bad. *Social and Personality Psychology Compass, 4*, 344–357.

Monin, B., & Jordan, A. H. (2009). Dynamic moral identity: A social psychological perspective. In D. Narvaez & D. Lapsley (Eds.), *Personality, identity, and character: Exploration in moral psychology* (pp. 341–354). Cambridge, UK: University Press.

Monin, B., & Miller, D. T. (2001). Moral credentials and the expression of prejudice. *Journal of Personality and Social Psychology, 81*, 33–43.

Monin, B., Sawyer, P. J., & Marquez, M. J. (2008). The rejection of moral rebels: Resenting those who do the right thing. *Journal of Personality and Social Psychology, 95*, 76–93.

Morrow-Howell, N., Hinterlong, J., Rozario, P. A., & Tang, F. (2003). Effects of volunteering on the well-being of older adults. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences, 58*, S137–S145.

Mulder, L. B., & Aquino, K. (2013). The role of moral identity in the aftermath of dishonesty. *Organizational Behavior and Human Decision Processes, 121*, 219–230.

Oliner, S. P., & Oliner, P. M. (1988). *The altruistic personality: Rescuers of Jews in Nazi Europe*. New York, NY: Free Press.

Olivola, C. Y. (2010). When noble means hinder noble ends: The benefits and costs of a preference for martyrdom in altruism. In D. M. Oppenheimer & C. Y. Olivola (Eds.), *The science of giving: Experimental approaches to the study of charity*. New York: Taylor and Francis.

Olivola, C. Y., & Shafir, E. (2013). The martyrdom effect: When pain and effort increase prosocial contributions. *Journal of Behavioral Decision Making, 26*, 91–105.

Ostrom, E. (1990). *Governing the commons*. New York: Cambridge University Press.

Penner, L. A., Dovidio, J. F., Piliavin, J. A., & Schroeder, D. A. (2005). Prosocial behavior: Multilevel perspectives. *Annual Review of Psychology, 56*, 365–392.

Pratt, M. W., Hunsberger, B., Pancer, S. M., & Alisat, S. (2003). A longitudinal analysis of personal values socialization: Correlates of a moral self-ideal in late adolescence. *Social Development, 12*, 563–585.

Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods, 40*, 879–891.

Reed, A., Aquino, K., & Levy, E. (2007). Moral identity and judgments of charitable behaviors. *Journal of Marketing, 71*, 178–193.

Reynolds, S. J. (2006). Moral awareness and ethical predispositions: Investigating the role of individual differences in the recognition of moral issues. *Journal of Applied Psychology, 91*, 233–243.

Reynolds, S. J., & Ceranic, T. L. (2007). The effects of moral judgment and moral identity on moral behavior: An empirical examination of the moral individual. *Journal of Applied Psychology, 92*, 1610–1624.

Roediger, H. L. (2012). Psychology's woes and a partial cure: The value of replication. *Observer*. <http://www.psychologicalscience.org/index.php/publications/obsrver/2012/february-12/psychologys-woes-and-a-partial-cure-the-value-ofreplication.html>.

Ross, J., & Staw, B. M. (1993). Organizational escalation and exit: Lessons from the Shoreham Nuclear Power Plant. *Academy of Management Journal, 36*, 701–732.

Rubin, J. Z., & Brockner, J. (1975). Factors affecting entrapment in waiting situations: The Rosencrantz & Guildenstern effect. *Journal of Personality and Social Psychology, 31*, 1034–1063.

Sachdeva, S., Iliev, R., & Medin, D. L. (2009). Sinning saints and saintly sinners the paradox of moral self-regulation. *Psychological Science, 20*, 523–528.

Schminke, M., Ambrose, M. L., & Noel, T. W. (1997). The effect of ethical frameworks on perceptions of organizatioan justice. *Academy of Management Journal, 40*, 1190–1207.

Shaikh, A. (2010, January 16). *Nobody wants your old shoes: How not to help Haiti* [blog post]. <http://aidwatchers.com/2010/01/nobody-wants-your-old-shoes-how-not-to-help-in-haiti/>.

Sivanathan, N., Molden, D. C., Galinsky, A. D., & Ku, G. (2008). The promise and peril of self-affirmation in de-escalation of commitment. *Organizational Behavior and Human Decision Processes, 107*, 1–14.

Sleesman, D. J., Conlon, D. E., McNamara, G., & Miles, J. E. (2012). Cleaning up the big muddy: A meta-analytic review of the determinants of escalation of commitment. *Academy of Management Journal, 55*, 541–562.

Sober, E., & Wilson, D. S. (1998). *Unto others: The evolution and psychology of unselfish behavior*. Cambridge, MA: Harvard University Press.

Staw, B. M. (1981). The escalation of commitment to a course of action. *The Academy of Management Review, 6*, 577–587.

Staw, B. M., & Hoang, H. (1995). Sunk costs in the NBA: Why draft order affects playing time and survival in professional basketball. *Administrative Science Quarterly, 40*, 474–494.

Staw, B. M., & Ross, J. (1987). Behavior in escalation situations: Antecedents, prototypes, and solutions. In L. L. Cummings & B. M. Staw (Eds.), *Research in organizational behavior* (pp. 39–78). CT: Greenwich.

Stern, K. (2013). *With charity for all: Why charities are failing and a better way to give*. New York: Random House Inc..

Strauss, R. L. (2008, April 22). Think again: The peace corps. *Foreign Policy*. <http://www.foreignpolicy.com/articles/2008/think_again_the_peace_corps>.

Strom, S. (2010, January 20). Teaching Americans what Haiti needs: Money. *The New York Times*. <http://www.nytimes.com/2010/01/21/us/21charity.html>.

Thoits, P. A., & Hewitt, L. N. (2001). Volunteer work and well-being. *Journal of Health and Social Behavior, 42*, 115–131.

Weiner, B., & Peter, N. (1973). A cognitive-developmental analysis of achievement and moral judgments. *Developmental Psychology, 9*, 290–309.

Werch, C. E., & Owen, D. (2002). Iatrogenic effects of alcohol and drug prevention programs. *Journal of Studies on Alcohol, 63*, 581–590.

Willer, R. (2009). Groups reward individual sacrifice: The status solution to the collective action problem. *American Sociological Review, 74*, 23–43.

Zhong, C. B., & Liljenquist, K. (2006). Washing away your sins: Threatened morality and physical cleansing. *Science, 313*, 1451–1452.