

The Omission Strategy

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Abstract

People are more willing to bring about morally objectionable outcomes by omission than by commission. Similarly, people condemn others less harshly when a moral offense occurs by omission rather than by commission, even when intentions are controlled. We propose that these two phenomena are related, and that the reduced moral condemnation of omissions causes people to choose omissions in their own behavior to avoid punishment. We report two experiments using an economic game in which one participant (the taker) could take money from another participant (the owner) either by omission or by commission. We manipulated whether or not a third party had the opportunity to punish the taker by reducing the taker's payment. Our results indicated that the frequency of omission increases when punishment is possible. We conclude that people choose omissions to avoid condemnation and that the omission effect is best understood not as a bias, but as a strategy.

Keywords

moral psychology, moral judgment, omission, condemnation, punishment

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People are more willing to engage in moral violations by omission than by commission. In India, for example, many Hindus are unwilling to kill cows, but they are willing to allow cows to die by starvation (Fox, 2003). This effect is highly replicable in the laboratory. When people are faced with hypothetical choices, such as diverting a food truck from a smaller number of starving people to a larger group of starving people, they tend to choose inaction even when doing so leads to worse outcomes (Ritov & Baron, 1999). This behavior has been observed for a variety of choices, including decisions about administering harmful medications and causing death (Anderson, 2003; Cohen & Pauker, 1994; Meszaros et al., 1996).

This pattern of choice has an analogue in the context of people's moral judgments of others' choices. People judge others' wrongful omissions less harshly than others' wrongful commissions (Anderson, 2003; Baron & Ritov, 2004; Cushman, Young, & Hauser, 2006; Hauser, 2006). For example, participants judge that someone who poisons a victim has committed a greater wrong than someone who withholds the antidote from a poisoning victim, even when the decision maker's intentions and the outcomes are carefully controlled (Cushman et al., 2006).

We propose that these two phenomena are related, and, in particular, that the pattern of choice can be explained by the pattern of moral judgment. Previously, these two phenomena—the asymmetry in choosing actions versus omissions, on the one hand, and the asymmetry in the moral evaluation of other people's actions and omissions, on the

other—were grouped together as a single phenomenon under the rubric of the *omission bias* (cf. Spranca, Minsk, & Baron, 1991, with Baron & Ritov, 2004). We argue, however, that it is crucial to distinguish between people's own choices and their moral evaluation of *others' choices* (DeScioli & Kurzban, 2009b).

Distinguishing between these two phenomena is important because they may have very different explanations. Expected regret, for example, is a plausible explanation for the omission effect in the context of choices (Anderson, 2003; Baron & Ritov, 2004; Connolly & Reb, 2003; Kahneman & Tversky, 1982). If agents foresee greater regret resulting from action than from inaction, then they might prefer inaction to reduce subsequent regret. However, expected regret is an unlikely explanation for reduced condemnation of other people's omissions because such an explanation would require that third parties condemn other people on the basis of their expectations of the others' regret. Symmetrically, some explanations for reduced condemnation of other people's omissions cannot explain the omission effect in people's choices about their own behavior. For example, it has been proposed that others' omissions are condemned less harshly than their commissions because of uncertainty about their intentions (Kordes-de Vaal, 1996), but this

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explanation cannot, by itself, explain people's own choice of omissions. When people decide to lie by omission, for example, they have complete information about their own intentions.

The distinction between omissions in first-person choice and third-person judgment raises questions about the relationship between the two phenomena. Do they share the same cause, or do they have independent causes? Or, does one cause the other? We propose that the last of these three possibilities is the correct explanation: People choose omissions as a strategy to reduce the costs of negative moral evaluation. We propose that the omission effect in choices is explained by the omission effect in condemnation of other people's choices.¹

We assume that an important strategic consideration when making decisions is the possibility of moral condemnation. Therefore, a good decision-making system should account for any properties of a decision that will influence other people's moral condemnation. If others condemn violations by omission less harshly than violations by commission, then individuals should take this factor into account, favoring omissions over actions, all else being equal (Anderson, 2003).

Experiment 1

Experiment 1 was designed to test this hypothesis. We presented participants with an opportunity to allocate money altruistically, selfishly by commission, or selfishly by omission. To test whether participants would use omissions strategically to try to reduce punishment, we manipulated whether or not they could be punished by an uninvolved bystander.

Method

Design. We used a modified reverse dictator game, in which one person, the owner, is endowed with \$1.00 and a second person, the taker, has the chance to take from this endowment. Takers had two discrete options: taking either 10¢ or 90¢ from the owner. Thus, the possible payoffs, written as (taker's payoff, owner's payoff), were (10¢, 90¢) and (90¢, 10¢). We refer to the former choice, (10¢, 90¢), as "altruistic" because that division favors the owner, and we refer to the latter choice, (90¢, 10¢), as "selfish" because that division favors the taker. To create the opportunity for omission, we presented participants with a timer that gave them 15 s to make a decision; if the timer was allowed to expire, then the entire dollar would be allocated to the taker, but with a 15¢ cost for timing out, leading to an (85¢, 0¢) omission payoff. Note that the payoffs in this case were worse than the selfish commission payoffs for both the taker and the owner. In the punishment condition, there was a second stage in which a third party could punish the taker on the basis of the taker's behavior (at no cost), deducting any amount up to 30¢ from the taker's payoffs.

Standard economic theory predicts that participants will not choose the omission payoff, (85¢, 0¢), because it is dominated by the selfish commission payoff (90¢, 10¢); other-regarding preferences (Fehr & Schmidt, 1999) would make the (85¢, 0¢)

option even less preferred. Current psychological theories regard the omission effect as a bias or error (e.g., Asch et al., 1994; Petrinovich & O'Neill, 1996), and these theories do not predict that people's omissions will be affected by the possibility of punishment. In contrast, our hypothesis that omissions are strategic yields the predictions that takers will choose omissions and that they will do so more frequently when there is the possibility that they will be punished.

Participants and procedure. We used Amazon's Mechanical Turk Web site (DeScioli & Kurzban, 2009a; see also Buhrmeister, Kwang, & Gosling, in press) to recruit 225 people (45% male, 55% female) to participate in a short, paid online study. (On this Web site, www.mturk.com, individuals complete short tasks for small payments; \$1.00 is a relatively large amount in this market.) Participants' mean age was 30.8 years ($SD = 11.3$).

Participants read general instructions describing an online interaction (instructions available on request). They read that they would receive 10¢ for participation and could earn additional money from the interaction. Participants read that "Person X" would receive \$1.00 and "Person Y" would have the chance to take some of Person X's money. Person Y would have 15 s to select among several amounts to take from Person X; the exact amounts would be revealed when the timer started. If time ran out, then a computer program called Auto-transfer would reduce the \$1.00 to 85¢ and transfer this amount to Person Y, leaving Person X with 0¢. In the no-punishment condition, the instructions ended at this point. In the punishment condition, participants also read that in a second round of the interaction, a third individual, "Person Z," could, at no cost, deduct an amount up to 30¢ from Person Y's payment, depending on Person Y's decision. Following the general instructions, participants completed a short comprehension quiz; a single error disqualified them.

After the instructions and the quiz, participants were assigned their role as Person X, Person Y, or Person Z. Person Y clicked a button when ready; this started the 15-s timer and revealed the exact amounts Person Y could take from Person X—either 10¢ or 90¢. In the no-punishment condition, Person Y's decision completed the experimental interaction. In the punishment condition, Person Z also decided, for each of the three possible outcomes, how much to punish Person Y. Participants completed a postexperiment questionnaire that asked them to rate, for each of Person Y's possible choices, the moral wrongness of the choice (on a 7-point scale ranging from 1, *not morally wrong at all*, to 7, *very morally wrong*), how much they thought most Persons Z would punish Person Y, and how much they thought most Persons X would punish Person Y (given the opportunity).

Results

In the no-punishment condition, the percentages of takers choosing the (10¢, 90¢) and (90¢, 10¢) commission options

and the (85¢, 0¢) omission option were 8%, 64%, and 28%, respectively. In the punishment condition, the corresponding values were 3%, 46%, and 51%. As predicted, the punishment manipulation significantly increased the rate of omission choices (28% vs. 51%), $z = 2.24$, $p < .05$ (see Fig. 1). Further, results were consistent with the idea that omissions perform a strategic function: Takers who engaged in selfish omissions were punished significantly less than takers who engaged in selfish commissions, $t(40) = 2.93$, $p < .01$ (see Table 1).

Questionnaire. Do third parties view omission as less wrong than commission, even if omission leads to lower payoffs for everyone? Punishers judged takers as less wrong for choosing omission ($M = 4.3$) than for choosing selfish commission ($M = 5.5$), $t(40) = 2.76$, $p < .01$. Owners, however, showed no significant difference between judgments of takers' selfish omissions ($M = 4.4$) and selfish commissions ($M = 4.6$), $t(94) = 0.87$, $p = .39$, which suggests that victims focus on the outcome rather than the means of reaching it.

We also found that participants (across roles) thought that most third parties would punish selfish omissions ($M = 21.0¢$) slightly less than selfish commissions ($M = 23.0¢$), $t(224) = 2.20$, $p < .05$. In contrast, participants thought that victims would punish selfish omissions ($M = 23.5¢$) no less than selfish commissions ($M = 23.5¢$), $t(224) = 0.09$, $p = .93$. Together with the results for morality judgments, these findings highlight the difference between revenge and third-party condemnation (Kurzban & DeScioli, 2009).

Follow-up to Experiment 1. We conducted a follow-up experiment in which the (85¢, 0¢) outcome could be reached only through a choice, rather than an omission (see the Supplemental Material available online). The frequency of the (85¢, 0¢) choice did not differ between the punishment condition (15%) and the no-punishment condition (6%), $z = 1.30$, $p = .19$, and unlike in the main study, this choice was punished

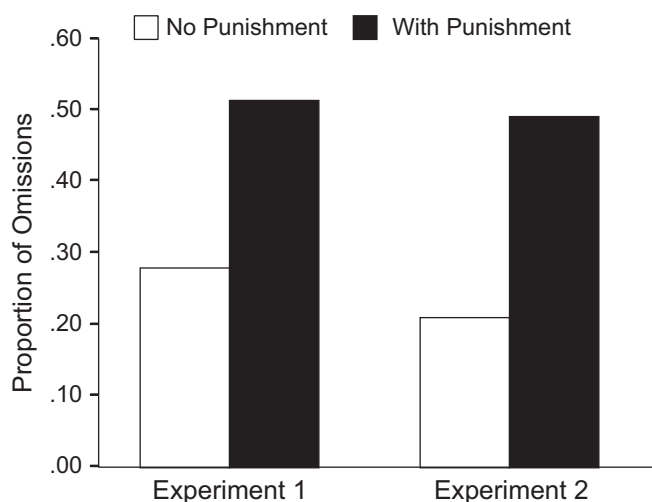


Fig. 1. The proportion of omissions as a function of condition (punishment or no punishment) in Experiments 1 and 2.

Table 1. Mean Punishment Decisions (in Cents)

Experiment	Option			
	(10¢, 90¢)	(90¢, 10¢)	(85¢, 0¢)	(50¢, 50¢)
Experiment 1 (N = 41)	2.8 (4.7)	20.8 (12.3)	14.4 (13.2)	—
Follow-up 1 (N = 39)	2.3 (6.9)	18.7 (9.9)	29.9 (8.3)	—
Experiment 2 (N = 39)	2.4 (3.9)	24.1 (9.8)	16.2 (14.4)	10.5 (11.8)
Follow-up 2 (N = 31)	2.4 (5.8)	22.7 (9.2)	27.4 (7.7)	10.8 (10.2)

Note: Standard deviations are given in parentheses. The options show the participants' payoffs in the form (taker's payoff, owner's payoff). The (85¢, 0¢) outcome was reached by omission in the main experiments and by commission in the follow-up experiments. The (50¢, 50¢) option was not available in Experiment 1.

more than the (90¢, 10¢) choice, $t(38) = 6.18$, $p < .001$ (see Table 1).

Experiment 2

In Experiment 1, takers had to choose between options that were heavily biased toward themselves or toward owners. This forced choice could have made the selfish commission seem less wrong than it would have seemed if a more equal division had been available. To give takers the opportunity to choose an even split, we ran a second study that was identical to the first except for the addition of a fourth option, (50¢, 50¢). This second experiment serves as a replication and extension of Experiment 1.

Method

We recruited 186 participants (51% male, 49% female) with a mean age of 31.6 years ($SD = 11.3$) to participate in a short online study on Amazon's Mechanical Turk Web site. The design and procedure were identical to those of Experiment 1, except that takers had the additional option of taking 50¢ from owners.

Results

In the no-punishment condition, the percentages of takers choosing the (10¢, 90¢), (50¢, 50¢), and (90¢, 10¢) commission options and the (85¢, 0¢) omission option were 6%, 32%, 41%, and 21%, respectively. In the punishment condition, the corresponding values were 6%, 17%, 29%, and 49%. As predicted, the punishment manipulation significantly increased the rate of omission (21% vs. 49%), $z = 2.44$, $p = .01$ (see Fig. 1). Also, third parties punished the welfare-destroying selfish omission less than the selfish commission (16¢ vs. 24¢), $t(38) = 3.22$, $p < .01$ (see Table 1).

Questionnaire. Participants in the third-party role (Person Z) judged selfish omissions to be less wrong ($M = 4.6$) than selfish commissions ($M = 5.6$), $t(38) = 2.13$, $p < .05$. However, owners did not judge takers' selfish omissions as less wrong ($M = 4.6$) than selfish commissions ($M = 4.8$), $t(76) = 0.67$, $p = .50$. Participants (across roles) thought that most third parties would punish selfish omissions ($M = 22.0\%$) less than selfish commissions ($M = 24.4\%$), $t(184) = 2.54$, $p = .01$. However, participants thought that owners would punish selfish omissions ($M = 24.1\%$) no less than selfish commissions ($M = 24.9\%$), $t(183) = 0.94$, $p = .35$.

Follow-up to Experiment 2. We ran a follow-up experiment in which the (85¢, 0¢) outcome could be reached only through a choice, rather than an omission (see the Supplemental Material). The frequency of this choice did not differ between the punishment condition (16%) and the no-punishment condition (13%), $z = 0.36$, $p = .72$, and this choice was punished more than the (90¢, 10¢) option, $t(30) = 3.77$, $p < .001$ (see Table 1).

General Discussion

We found that participants used omissions strategically, choosing omission more frequently when there was the possibility of punishment. Participants often chose omission despite the fact that omissions destroyed welfare, reduced aggregate payoffs by 15%, and had lower payoffs than selfish commissions for both takers and owners. Further, selfish omissions, despite being worse for everyone, were punished less than selfish commissions. We infer that the preference for omission is strategic: People choose omissions to avoid third-party condemnation and punishment.

These results provide evidence for a specific causal relationship in which reduced condemnation of omissions causes people to choose omissions as a strategic response. In contrast, the results do not fit well with psychological theories that regard the tendency to choose omissions as a bias or error. These theories provide no principled reason to expect that the threat of punishment will increase the hypothesized cognitive errors. The results also contradict economic theories that predict that people will not choose outcomes that are worse for everyone. If, however, we assume that people know (implicitly or explicitly) that third parties punish omissions less harshly than commissions, then people's omission decisions appear economically and strategically sophisticated. This observation raises questions about how people acquire knowledge about third-party punishment, whether people have conscious access to this knowledge (Haidt, 2001), and, more generally, how the omission strategy is implemented in cognition.

These experiments had relatively small stakes, which could raise concerns about whether participants were sufficiently motivated to attend to the task carefully (Harrison, 1989). We note, however, that observing a treatment effect in

a potentially noisy data set implies that higher stakes would, if anything, increase the treatment effect.

Our experiments are relevant to a broader issue about how traditional normative theories are used in psychology. Previous work labeled the omission effect as a bias because people's decisions violated normative theories. Although normative theories can be useful for applications such as policy making, the present work illustrates an important limitation. By measuring performance against normative theories, researchers misleadingly label strategic decision making—choosing in a way that takes into account how other people will respond—as error (Cosmides & Tooby, 1994; DeScioli & Kurzban, in press). This mischaracterization can preclude deeper investigation into the highly organized mental processes that regulate decisions in strategic environments.

This idea raises the possibility that the omission effect in third-party condemnation might also be a strategic effect rather than a bias (see DeScioli, 2008). This issue can be addressed in future research. Generally, understanding of moral judgment, not only for omissions but also for other moral phenomena, might be advanced by viewing the underlying psychological mechanisms as complex and strategic (Kurzban, Duker, & Weeden, 2010). Future research should go beyond normative theories to investigate the full range of strategies and counterstrategies embedded in the information-processing structure of human moral cognition.

Declaration of Conflicting Interests

The authors declared that they had no conflicts of interest with respect to their authorship or the publication of this article.

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Supplemental Material

Additional supporting information may be found at <http://pss.sagepub.com/content/by/supplemental-data>

Note

1. We have chosen to use the term *omission effect* rather than *omission bias* to avoid prejudging the phenomenon as a cognitive error.

References

- Anderson, C.J. (2003). The psychology of doing nothing: Forms of decision avoidance result from reason and emotion. *Psychological Bulletin*, *129*, 139–167.
- Asch, D.A., Baron, J., Hershey, J.C., Kunreuther, H., Meszaros, J., Ritov, I., & Spranca, M. (1994). Omission bias and pertussis vaccination. *Medical Decision Making*, *14*, 118–123.
- Baron, J., & Ritov, I. (2004). Omission bias, individual differences, and normality. *Organizational Behavior and Human Decision Processes*, *94*, 74–85.

- Buhrmeister, M.D., Kwang, T., & Gosling, S.D. (in press). Amazon's Mechanical Turk: A new source of inexpensive, yet high-quality, data? *Perspectives on Psychological Science*.
- Cohen, B.J., & Pauker, S.G. (1994). How do physicians weigh iatrogenic complications? *Journal of General Internal Medicine*, *9*, 20–23.
- Connolly, T., & Reb, J. (2003). Omission bias in vaccination decisions: Where's the "omission"? Where's the "bias"? *Organizational Behavior and Human Decision Processes*, *91*, 186–202.
- Cosmides, L., & Tooby, J. (1994). Better than rational: Evolutionary psychology and the invisible hand. *American Economic Review*, *84*, 327–332.
- Cushman, F., Young, L., & Hauser, M.D. (2006). The role of reasoning and intuition in moral judgments: Testing three principles of harm. *Psychological Science*, *17*, 1082–1089.
- DeScioli, P. (2008). *Investigations into the problems of moral cognition*. Unpublished doctoral dissertation, University of Pennsylvania, Philadelphia.
- DeScioli, P., & Kurzban, R. (2009a). The alliance hypothesis for human friendship. *PLoS ONE*, *4*(6), e5802. Retrieved August 19, 2010, from <http://dx.doi.org/10.1371/journal.pone.0005802>
- DeScioli, P., & Kurzban, R. (2009b). Mysteries of morality. *Cognition*, *112*, 281–299.
- DeScioli, P., & Kurzban, R. (in press). The company you keep: Friendship decisions from a functional perspective. In J.I. Krueger (Ed.), *Social judgment and decision making*. New York, NY: Psychology Press.
- Fehr, E., & Schmidt, K. (1999). A theory of fairness, competition, and cooperation. *Quarterly Journal of Economics*, *114*, 817–868.
- Fox, M.W. (2003). India's sacred cow: Her plight and future. In S.J. Armstrong & R.G. Botzler (Eds.), *The animal ethics reader* (pp. 238–241). New York, NY: Routledge.
- Haidt, J. (2001). The emotional dog and its rational tail: A social intuitionist approach to moral judgment. *Psychological Review*, *108*, 814–834.
- Harrison, G.W. (1989). Theory and misbehavior of first-price auctions. *American Economic Review*, *79*, 749–762.
- Hauser, M.D. (2006). *Moral minds*. New York, NY: HarperCollins.
- Kahneman, D., & Tversky, A. (1982). The psychology of preferences. *Scientific American*, *246*, 136–142.
- Kordes-de Vaal, J.H. (1996). Intention and the omission bias: Omissions perceived as nondecisions. *Acta Psychologica*, *93*, 161–172.
- Kurzban, R., & DeScioli, P. (2009). *Adaptationist punishment in humans: Context and the evolution of mechanisms for solving collective action problems paper*. Available at Social Science Research Network Web site: <http://ssrn.com/abstract=1368784>
- Kurzban, R., Dukes, A., & Weeden, J. (2010). Sex, drugs, and moral goals: Reproductive strategies and views about recreational drugs. *Proceedings of the Royal Society B: Biological Sciences*, *277*, 3501–3508.
- Meszaros, J.R., David, A.A., Baron, J., Hershey, J.C., Kunreuther, H., & Schwartz-Buzaglo, J. (1996). Cognitive processes and the decisions of some parents to forego pertussis vaccination for their children. *Journal of Clinical Epidemiology*, *49*, 697–703.
- Petrinovich, L., & O'Neill, P. (1996). Influence of wording and framing effects on moral intuitions. *Ethology and Sociobiology*, *17*, 145–171.
- Ritov, I., & Baron, J. (1999). Protected values and omission bias. *Organizational Behavior and Human Decision Processes*, *79*, 79–94.
- Spranca, M., Minsk, E., & Baron, J. (1991). Omission and commission in judgment and choice. *Journal of Experimental Social Psychology*, *27*, 76–105.

Supplementary Materials

Follow-up to Experiment 1. We assumed in Experiment 1 that the (\$.85, \$0) omission payoffs had no appeal over the (\$.90, \$.10) commission except by virtue of its status as an omission. To confirm this assumption, we ran a follow-up in which the (\$.85, \$0) outcome could only be reached through a choice, rather than an omission. The follow-up was identical, holding constant the menu of choices, but there was no timer. So, Takers faced the following choice set, {(\$.90, \$.10), (\$.10, \$.90), (\$.85, \$0)}, all of which could only be reached with an action. The follow-up included 241 participants recruited from Amazon's Mechanical Turk website who were 60% female with mean (*SD*) age of 30.3 (10.9).

Without punishment, the percentages of Takers choosing (\$.10, \$.90), (\$.90, \$.10), and (\$.85, \$0) were 28%, 66%, and 6%, respectively. In the punishment condition, these values were 10%, 75%, and 15%, respectively. Without the omission framing, the choice of the (\$.85, \$0) option was rare, and adding the possibility of punishment had no significant effect on its frequency (6% vs. 15%), $z = 1.30$, $p = .19$. In terms of punishment decisions, as one might expect – and reversing the pattern in the omission case – the commission of (\$.85, \$0) was punished *more* than (\$.90, \$.10), $t(38) = 6.18$, $p < .001$ (Table 1). When all choices are reached by commission, as might be expected, the welfare-destroying act is punished most heavily.

From these results, we conclude that in Experiment 1, the increase in the (\$.85, \$0) choice in the punishment condition is due to the fact that it is reached by omission.

Follow-up to Experiment 2. We tested the assumption that there was no particular appeal to the (\$.85, \$0) outcome when punishment was possible, aside from its status as an omission. We ran a follow-up in which the (\$.85, \$0) outcome could only be reached through a choice, rather than an omission. The Taker's choice set was: (\$.10, \$.90), (\$.50, \$.50), (\$.90, \$.10), and (\$.85, \$0), all of which were reached through commission. We recruited 166 participants from Amazon's Mechanical Turk website who were 48% female with mean (*SD*) age of 30.9 (10.1).

Without punishment, the percentages of Takers choosing (\$.10, \$.90), (\$.50, \$.50), (\$.90, \$.10), and (\$.85, \$0) were 6%, 38%, 44%, and 13%, respectively. In the punishment condition, these values were 6%, 34%, 44%, and 16%, respectively. The frequency of the (\$.85, \$0) choice did not differ between conditions (13% vs. 16%), $z = 0.36, p = .72$. Third parties punished (\$.90, \$.10) less than they punished (\$.85, \$0), $t(30) = 3.77, p < .001$ (Table 1).

We infer that in Experiment 2, there is no particular appeal to the (\$.85, \$0) option in the punishment condition, aside from its status as an omission.