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Return of the lost letter Experimental framing does not enhance altruism in an everyday context

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ABSTRACT

Debate surrounds interpretation of prosocial behavior in experimental games. Skeptics of the thesis that evolution produced a propensity for noncontingent altruism speculate that such results reflect the presence of information suggesting reputational consequences, including awareness that one is participating in an experiment. To examine the effects on prosocial behavior of awareness that research is being conducted, return rates were measured on 'lost' envelopes, some of which carried the message that they were dropped as part of an investigation. Return rates were not enhanced by such messages, indicating that awareness that one is in an experiment does not increase prosocial behavior.

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Altruism, incurring a cost in order to generate a benefit for another, is an important focus of many contemporary evolutionary explanations of human behavior. While there is consensus that actions ranging from heroic self-sacrifice to mundane kindness toward strangers occur with some frequency, the complexity of the determinants of naturally occurring behavior has led many students of this topic to employ laboratory studies in attempts to discern the factors underlying altruism more clearly. Considerable debate has swirled around the interpretation of the observation that, reliably, some participants in anonymous economic experiments behave altruistically even when game parameters preclude the formation of reputations within the experiment. Proponents of theories positing that, in addition to individual-level selection, human evolution has been characterized by a history of cultural and/or biological group selection argue that these results reveal an evolved human propensity for (i) individually costly within-group prosociality, (ii) the ready internalization of norms that generate such behavior, or (iii) some combination thereof (Fehr and Fischbacher, 2005; Gintis et al., 2003; Henrich et al., 2005, 2006). In contrast, critics note that prosocial acts normally entail subsequent benefits, often mediated by reputational gains, and hence that altruism within the experimental context is potentially explicable in terms of the presence of information, including cues, whether actual or, due to the evolutionarily novel nature of the setting, spurious, that reputations may be at stake, i.e., such behavior can be construed in terms of maximizing individual, not group, welfare (Burnham and Hare, 2007; Burnham and Johnson, 2005; Hagen and Hammerstein, 2006; Haley and Fessler, 2005).¹

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¹ To avoid misconstruals of these discussions, it is important to note that the key question is whether or not altruistic behavior in experimental settings reveals an inclination to incur costs without any hope (whether conscious or otherwise) of future benefit; none of the discussants questions the fact that

Seeking to explain altruistic behavior in economic experiments, proponents of a reputation-based individual benefits account of prosociality point to the fact that participation in economic experiments generally occurs in the vicinity of a location frequented by subjects, such as the campus of their university, where geographic familiarity can act as a cue of reputational opportunity. Of additional concern, because research necessarily entails some type of explicit recruitment, followed by interactions (even if technologically mediated) with an experimenter, subjects are well aware that they are participating in an experiment; the overt knowledge that one is participating in research may be sufficient to elicit reputation-enhancing behaviors in at least some individuals (Gigerenzer and Gigerenzer, 2005; see also Smith, 2005; Hagen and Hammerstein, 2006; Levitt and List, 2007). Add to this game parameters that can be construed as inviting prosocial behavior, and the potential for a substantial framing effect exists; put simply, it is possible that the altruism observed in experiments is in part the product of a combination of (i) the knowledge that an experiment is being conducted, (ii) awareness of norms of prosociality, and (iii) the presence of an opportunity to behave altruistically (Bardsley, 2008; Levitt and List, 2007; see also Barclay, 2006; Kurzban et al., 2007). Consistent with this possibility, Penner et al. (1976) found that subjects were more likely to return an apparently lost dollar when it was located in a university laboratory or university office, both of which were entered by participants in the context of participating in research, than when it was located in the stall of a university restroom (which they entered for the usual purposes); moreover, return rates were higher in the laboratory setting, where research was actively undertaken, than in the office setting, where the connection to the research activity was less direct.

Short of the use of elaborate deception, itself entailing substantial ethical and methodological problems, it is difficult to employ laboratory experiments to test the effect on prosocial behavior of propositional knowledge that research is being conducted.² Instead, I resurrected a now little-used method for studying prosociality, the lost letter technique. Though made famous by Milgram et al.'s (1965) tactic of dropping letters in public as a means of polling political attitudes (via manipulation of the address on the envelope), the lost letter technique was initially developed to gauge prevailing levels of prosociality, specifically honesty (through the apparent inclusion of money in addressed envelopes) (Merritt and Fowler, 1948; see also Simon and Gillen, 1971; compare with Penner et al., 1976, and West, 2003, for the return of lost valuables). As posting a lost letter or postcard is an intrinsically altruistic act (entailing time and benefit expended on behalf of a stranger with whom one is almost certain not to interact), even absent the apparent inclusion of money, return rates for lost letters can be an effective measure of altruism (Simon, 1971; Deaux, 1974; Bihm et al., 1979; Levine et al., 1994). To examine the effect on altruistic behavior of framing a context as an experiment, I compared return rates on three types of stamped envelopes, addressed to me at my university address, that were surreptitiously dropped by a research assistant on the UCLA campus and in surrounding neighborhoods; all envelopes were dropped in conspicuous public locations during periods of good weather and at a sufficient distance from one another as to make it unlikely that any single passer-by would encounter more than one envelope.³ Each envelope was sealed and contained a single printed page, giving the appearance of actual correspondence. Printed in large font along the lower left edge of one-third of the envelopes were the words "This envelope was dropped as part of an experiment." As a control for the presence of information that might seem to lend importance to an envelope independent of the question of experimentation, in the same font and location, one-third of the envelopes bore the words "This envelope should not be bent or folded." To generate a baseline against which to measure the effects of these two messages, one-third of the envelopes bore no information beyond my name and address. Over the course of several months, 115⁴ envelopes were dropped. Seventy-four envelopes (64.4 percent of the total) made their way to my mailbox, in the following proportions: 21 marked "experiment," 25 marked "should not be bent," and 28 unmarked. This composition does not differ from chance ($\chi^2 = 0.836$, d.f. = 2, $p = 0.66$).

To ensure that the above result was not driven by the particular wording of the frame employed, another 115 envelopes were then dropped in the same vicinities over the ensuing months; the two control conditions remained the same, but the "experiment" phrase was replaced with the statement "This envelope was dropped as part of a research study." Seventy-nine envelopes (68.7 percent of the total) were returned, in the following proportions: 23 marked "research study," 33 marked "should not be bent," and 23 unmarked. This composition too does not differ from chance ($\chi^2 = 2.727$, d.f. = 2, $p = 0.26$).

In an attempt to explore whether the above patterns would hold true even when the cost of behaving altruistically was raised, the format used in the second round was repeated, this time without postage on the envelopes (to preclude lower-cost altruism, envelopes were not dropped on the UCLA campus, as postage is not required in the university's in-

overt opportunities for reputation formation can enhance prosociality, nor do any of them doubt the importance of individual-level selection in human evolution.

² For a discussion of the relevance for explanations of prosocial behavior of the distinction between propositional knowledge and subtle cues, see Haley and Fessler (2005).

³ Pilot testing indicated that it was necessary to drop the letters surreptitiously, as passers-by who witnessed the drop would frequently call out to the research assistant or pick up the letter and hand it to her (cf. Levine et al., 1994). While interesting in its own right, for several reasons, this behavior is not germane to the present agenda. First, it is unlikely that these individuals had the opportunity to read the statements printed on the envelope; hence the effect of awareness of the research context could not be judged. Second, the directness of the social interaction involved created the potential for reciprocity, thus making it impossible to define the behavior as purely altruistic; indeed, the fact that the research assistants were attractive young women increases the plausibility of such an initiation-of-interaction explanation.

⁴ The research assistants who dropped the letters were blind to the hypothesis at issue. Due to a misunderstanding, rather than comprising three equal sets, 38 envelopes carried the "experiment" message, 38 carried the "should not be bent" message, and 39 were unmarked; the same distribution held for the second study.

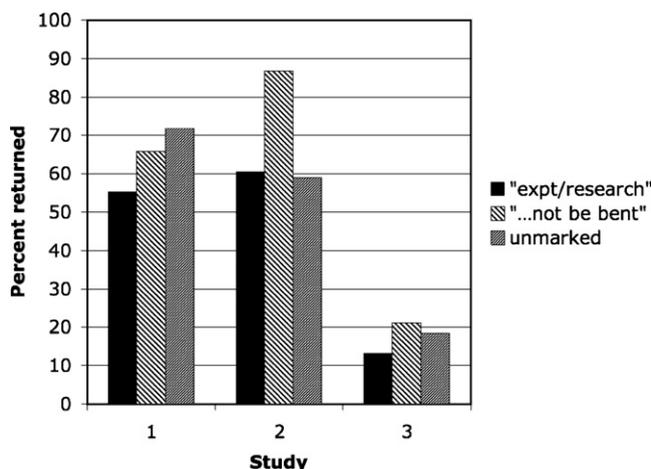


Fig. 1. . Return rates of 'lost' letters by type.

house mail system; by way of comparison, in the first and second rounds, respectively, 10.8 percent and 20.3 percent of the envelopes returned were not postmarked, suggesting that they had been sent through the university's mail system). Thirty-eight envelopes of each type were dropped. Twenty envelopes (17.5 percent of the total) were returned. Replicating previous lost-letter experiments that manipulated the presence of postage (Simon, 1971; Simon and Gillen, 1971), this is a substantial reduction from previous return rates. Envelopes were returned in the following proportions: 5 marked "research study," 8 marked "should not be bent," and 7 unmarked. This composition does not differ from chance ($\chi^2 = 0.700$, d.f. = 2, $p = 0.70$).⁵ Fig. 1 summarizes the return rates across the three studies

Using the cues of geographic familiarity and institutional affiliation analogous to those that occur incidentally in many laboratory investigations of prosocial behavior, the three studies reported here failed to find a positive effect of explicitly framing an opportunity to behave altruistically as an experiment (indeed, two of the three studies show a nonsignificant trend in the opposite direction). The continuing success of research using Milgram-style polling techniques (see Bridges et al., 2001 for a recent addition) indicates that people clearly attend to information printed on an envelope when deciding whether or not to mail a lost letter; hence it is fair to assume that participants processed the experimentally manipulated feature and that it simply had no effect on their altruistic behavior. Likewise, it is plausible that the three studies reported here should have sufficed to detect an effect of the experimentally manipulated feature, as a Milgram-style polling study by Simmons and Zumpf (1983) using somewhat smaller sets than those employed here produced results that accurately mirrored subsequent voting patterns on a contested state ballot measure.

Although results are consistent across the three studies reported here, caution is nevertheless in order in generalizing findings from a single sociocultural context. Likewise, it is important to note that, in contrast to laboratory experiments, passers-by did not volunteer to participate in research; hence it is possible that self-selection effects create differences between the two settings.⁶ With these limitations in mind, these results suggest that, in and of itself, propositional knowledge that one is participating in research does not suffice to increase prosocial behavior. While this should not be taken as indicating that participants treat laboratory experiments as if they were everyday contexts (see Levitt and List, 2007), it does reduce the potential list of factors that investigators must consider when attempting to discern the motivations underlying prosocial behavior in experiments.⁷ Last, of potential relevance to discussions regarding such motivations, it is worth noting that a relatively minor increase in the costliness of an altruistic act (the need to obtain and apply an inexpensive stamp or hand-carry the envelope to a university mailbox) resulted in a precipitous decline in prosocial behavior.

⁵ In this round, the least costly form of behavior consisted of dropping the envelope in a public mailbox without adding postage; more costly behaviors included either adding postage or carrying the letter to a university mailbox. Three envelopes were postmarked without postage; eight had postage added; and nine were not postmarked, suggesting that they were delivered via the university's mail system. There were no significant patterns in the distribution of these types.

⁶ Although research suggests that, not surprisingly, prosocial individuals are more likely to volunteer to participate in laboratory psychology experiments (Rosenthal and Rosnow, 1975; Dollinger and Leong, 1993), such findings cannot readily be applied to the case of economic experiments, given that financial incentives are central to the latter but generally absent from the former; to date, the question of volunteer bias has been largely ignored in experimental economics.

⁷ Drawing on Orne's (1962) classic work on psychological experimentation, Bardsley (2007) argues that prosocial behavior in economic experiments is potentially explicable as an attempt to conform to the behavior that the participant perceives as expected by the experimenter. Such conformity may stem from the desire to fulfill a social contract initiated by volunteering to participate in research; because passers-by did not volunteer in this manner, the studies reported here do not test this facet of reputation-management explanations (Bardsley, personal communication).

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