

Violations of Procedure Invariance in Moral Judgments of Sacrificial Dilemmas



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Background

There is debate about whether moral judgments result from domain-general cognitive processes or from processes that are unique to the moral domain.

One kind of evidence that can speak to this question is whether moral judgments show domain-general judgment patterns that have been observed in other domains.

Past research shows that consumer preferences sometimes violate the normative principle of *procedure invariance* – that is, normatively equivalent elicitation methods should result in the same patterns of judgment.

Across five pre-registered studies, we examine whether moral judgments also sometimes violate procedure invariance.

Study 1: Joint Versus Separate Evaluation

Method: Stimuli were six pairs of sacrificial dilemmas (*Baby, Submarine, Cliffhanger, Nuclear Plant, Construction*, and *Shark Attack*). Each pair consisted of one version in which a person kills one other person *indirectly* (via an intervening mechanism) to save 5 others, and one version where a person kills one other person *directly* (through heinous violence) to save 100 others.

MTurkers (N = 305) were assigned to one of three conditions:

- Separate Evaluation (SE) Direct: Only respond to direct killing scenarios
- Separate Evaluation (SE) Indirect: Only respond to indirect killing scenarios
- Joint Evaluation (JE): Respond to both scenarios in each pair on the same page

DV: Ratings of moral rightness/wrongness of the action described

Results: In SE, directly killing one person to save 100 others was rated as morally worse (M = 0.13, SD = 2.98) than indirectly killing one person to save 5 others (M = 1.32, SD = 2.68), but this difference reversed in JE (M = 0.59, SD = 2.87 and M = 0.50, SD = 2.92). This reversal is significant, according to Hsee's (1996) custom t-test, t = 2.61, p = .010.

Study 2: Choice Versus Criterion-Setting

Method: MTurkers (N = 100) were assigned to one of two conditions:

- Choice: Is it morally right to directly kill one person to save 50 others?
- Criterion-Setting: Analogous to a willingness-to-pay task; how many lives would need to be saved to make directly killing one person morally right?

DV: Number of scenarios (out of six) in which participants indicate that it would be morally right to directly kill one person to save 50 others.

Results: Directly killing one person to save 50 others was judged to be morally right more often when setting a minimum number of lives to be saved (M = 5.55 scenarios, SD = 1.28) than in Choice (M = 4.02, SD = 1.84), t(98) = 4.82, p < .001, d = 0.96.

Study 3: Choice Versus Matching

Method: MTurkers (N = 97) were assigned to one of two conditions:

- Choice: Which action is more morally right, directly killing one person to save 100 others, or indirectly killing one person to save 5 others?
- Matching: One number of lives saved is missing and must be filled in to make the two actions *equally* morally right.

DV: Proportion of scenario-pairs for which participants chose direct killing to save 100 as more morally right, or implied such a choice by their response in Matching

Results: Directly killing one person to save 100 others was judged as more morally right than indirectly killing one person to save 5 others more often in the Matching task (M = .92, SD = .23) than in the Choice task (M = .60, SD = .27), t(95) = 6.13, p < .001, d = 1.26.

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Study 4: Rating Versus Matching

Method: MTurkers (N = 93) were assigned to one of two conditions:

- Rating: Likert-type ratings of moral rightness of directly killing one person to save 100 others and indirectly killing one person to save 5 others?
- Matching: One number must be filled in to make the two actions equally morally right, as in Study 3.

DV: Proportion of scenario-pairs for which participants rate direct killing to save 100 as more morally right, or implied such a rating by their response in Matching

Results: Directly killing one person to save 100 others was judged as more morally right than indirectly killing one person to save 5 others more often in the Matching task (M = 0.93, SD = 0.24) than in the Rating task (M = 0.53, SD = 0.31), t(91) = 7.01, p < .001, d = 1.45.

Study 5: Choice/Rating Versus Matching (Within-Ss)

Method: Undergraduates (N = 134) attended two lab sessions about two weeks apart: Choice/Rating and Matching.

Results: No difference between Choice (M = .54, SD = .30) and Rating (M = .52, SD = .39) tasks, t(132) = 0.27, p = .788, d = .05.

Significant difference between Matching (M = .86, SD = .30) and Choice/Rating (M = .53, SD = .35), t(133) = 9.34, p < .001, d = 0.81, replicating Studies 3 and 4 within-subjects.

Susceptibility to judgment reversals was correlated with Faith in Intuition, r(132) = .24, p = .005.

Conclusion

Moral judgments sometimes fully reverse across elicitation tasks, a phenomenon that parallels consumer preference reversals. This suggests that moral judgments are at least sometimes constructed "on the fly" and supports domain-general views of moral cognition over domain-specific ones.