Folk Retributivism and the Communication Confound

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On-line Materials

Study One

Method

Sample

Participants were recruited from MTurk, an Amazon internet platform which provides researchers access to a population of potential participants. Data obtained through MTurk is of comparable quality to data obtained through standard psychology subject pools, so long as the sample is restricted to U.S. participants (Buhrmester *et al.* 2011). Participation was restricted to the U.S., and participants were compensated $0.40 for their time. 86 participants began the study; 74 completed the task. Of those who completed the task, 44 were female. Participants ranged in age from 19 to 68, with a mean age of 34. As is typical with MTurk samples, the participants were diverse in ethnicity, educational background, and employment.

Materials

Participants completed an online questionnaire divided into three sections.

Section 1: Economic Game

An economic game was described to participants, and they were asked to indicate their preferences as if they were actually taking part in the game. They received the following instructions for the game:

> You will be grouped randomly and anonymously with two other people in this room, also at computer stations. You will never be informed of the identity of these other people, either during or after the experiment. Similarly, the other participants will never be informed about your identity or about each other's identities. One participant will be designated as G and will be given $2. Another participant will be designated D, and that participant will be allowed to deduct $0, $1, or $2 from G (the money doesn't go to D or anyone else). You have been designated as the third participant, P. You have the opportunity to get some money and also to decide whether D gets a bonus payment. You need to decide among various options for what you would do, depending on what D does.

Participants were randomly assigned to one of two conditions, "knowledge" or "ignorance."

Participants in the knowledge condition saw the following sentence at the end of the scenario:

> D knows that he might get a bonus of up to $4, and he will know if you have deducted from his bonus.

Participants in the ignorance condition saw the following sentence at the end of the scenario:

> D doesn't know that he might get a bonus of up to $4, and he will never know if you have deducted from his bonus.

Participants were then asked to make decisions about how much money D would get under three different possible scenarios (D deducts either $2, $1, or $0 from G). For each scenario, participants indicated which of these they would choose:

> $4 for you, $4 for D
> $3 for you, $1 for D
> $2 for you, $0 for D

If participants selected an option on which D (and the participant) would get less than the optimal $4, we call this a "welfare reduction" response.

Section 2: Explicit Retributivism Question

The next part of the experiment investigated explicit beliefs about the propriety of retributive punishment. Our primary interest was to measure beliefs in retributive punishment. But we also wanted participants to consider a wide range of potential justifications for punishment. So before they were given the key retributivism question, they were asked to rank the importance of the following different justifications for punishment (the order of the justifications was randomized):

1. People who commit crimes should be punished because by punishing them we give them what they deserve and giving offenders their just deserts is a good thing. [Desert]
2. People who commit crimes should be punished because by punishing them, we make it less likely they will harm others in the future. [Specific deterrence]
3. People who commit crimes should be punished because by punishing them, we make an example out of them, which makes it less likely others will engage in similarly harmful behavior. [General deterrence]
4. People who commit crimes should be punished because by punishing them, we make it more likely they will be rehabilitated and safely reintegrated into society. [Rehabilitation]
5. People who commit crimes should be punished because by punishing them, we give the victims' family and friends the revenge they deserve. [Revenge]

The first item above was intended to approximate a retributivist consideration. Following the ranking, participants were asked to indicate their agreement with a more precise statement of an *explicit retributivist principle*:

> People who commit crimes deserve to be punished even if punishing them won't produce any positive benefits to either the offender or society—e.g., rehabilitation, deterring other would-be offenders, etc.

Agreement with this statement was coded as indicating explicit agreement with retributivism.[1]

Section 3: Personal Beliefs and Demographics

Following the retributivist portions of the experiment, participants completed (i) an empathy measure (the subscales for *empathic concern* and *personal distress* from the Interpersonal

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[1] The retributivist consideration we used in the ranking task is less precise because it did not include the explicit stipulation that punishment is justified in the absence of positive benefits.

Reactivity Index [Davis 1980; 1983])*,* (ii) Part 1 of the Free Will Inventory (Nadelhoffer *et al.*, in prep),[2] and (iii) a demographic questionnaire.

Study 2

Method

Sample

As with Study 1, participants were recruited from MTurk. Participants were compensated $0.40 for their time, and participation was restricted to the U.S. 45 participants began the study, 41 of which completed the task. Of those who completed the task, 21 were male, and 20 were female. Participants ranged in age from 18 to 70, with a mean age of 37.

Materials

The three-section questionnaire used in Study 2 included the new economic game, the ranking task and the explicit retributivism question from Study 1, the free will scale, and a scale to measure belief in egalitarianism.

Section 1: The New Economic Game

Since there was no difference between the ignorance and knowledge conditions in Study 1, the knowledge condition was eliminated for Study 2. All participants were presented with a game in which the target of deduction would never know about any reduction in welfare. Instructions for the new economic game were as follows:

> You will be grouped randomly and anonymously with two other people in this room, also at computer stations. You will never be informed of the identity of these other people, either during or after the experiment. Similarly, the other participants will never be informed about your identity or about each other's identities. One participant will be designated as G and will be given $4. Another participant will be designated D, and that

[2] We included FWI because of the recent interest in both social psychology and experimental philosophy in the relationship between free will and judgments concerning moral responsibility. See, e.g., Monroe & Malle (2010); Nahmias *et al.* (2006); Nichols & Knobe (2007); Shariff *et al.* (in prep); Vohs & Schooler (2008).

participant will be allowed to deduct $0, $1, or $2 from G (the money doesn't go to D or anyone else). You have been designated as the third participant, P. You will receive $2. And you will decide whether D gets a bonus payment. You need to decide among various options for what you would do, depending on what D does.

Participants were then asked to make decisions about how much money D would get under three different possible scenarios (D deducts $2, $1, or $0 from G). For each scenario, participants indicated which of the following they would choose:

D gets $2
D gets $1
D gets $0

Section 2: Explicit Retributivism Question

The questions used for this section were identical to the question used in Study 1.

Section 3: Egalitarianism, Free will beliefs, and Demographics

Following the retributivist portions of the experiment, participants completed i) a free will questionnaire identical to that used in Study 1, ii), a demographic questionnaire, and iii) part of the Social Dominance Orientation scale (Pratto *et al.*, 1994), used with reverse coding to measure egalitarianism.[3]

Study 3

Method

Sample

As with Studies 1 & 2, participants were recruited from MTurk. Participants were compensated $0.50 for participating, with the possibility of further payment depending on which condition they were assigned to and the decisions of other players. Participation was restricted to the U.S.

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[3] We created the egalitarianism subscale from the social dominance orientation scale by omitting items 3, 7, 11, 12, and 14 from the scale. We are grateful to Kathleen Vohs and Adam Waytz for suggesting this as a measure of egalitarianism.

193 participants began the study. 13 failed comprehension checks and were excluded from the analysis, leaving a total of 180 participants. Of those 180, 78 were female.

Materials

Participants were randomly assigned to one of five conditions and they completed an online questionnaire that was divided into three sections.

Section 1: Economic Game

For starters, each participant received the following general instructions:

> You have been grouped randomly and anonymously with two other participants in this study on MTurk to interact in an economic game. You will never be informed of the identity of these other people, either during or after the experiment. Similarly, the other participants will never be informed about your identity or about each other's identities.

> Of course, all participants who complete the study will be paid the fee for the HIT. Some participants will receive additional money, but this might depend on what other participants decide. The additional money will be paid through MTurk as well. You will be informed about the possible additional money after you begin the game.

> You may be familiar with psychology experiments. Psychologists sometimes make use of deception in their experiments. Economists do not use deception, and everything that you are told during this experiment about the procedures, decisions, and outcomes is completely accurate and truthful.

Participants were then presented with the following description of the economic game:

> The game will be described in terms of 'tokens'. Each token is worth 12 cents. After the game, you will receive (through MTurk), a sum of money equivalent to the sum of tokens you have. Here again, the sum of money you receive for tokens will be in addition to the money you receive for the HIT.

> It is very important that you read the instructions for the game very carefully. At several junctures, you will be asked simple questions about the instructions. If you miss a question you will be excluded from completing the HIT.

At this point, participants were randomly assigned to one of five conditions: Knowledge C (KC), Ignorance C (IC), Knowledge B (KB), Ignorance B (IB), and A.

Conditions C:

Participants in both KC and IC received the following general information:

> As noted above, you have been grouped (randomly and anonymously) with two other participants. One participant, designated as A, is scheduled to receive 20 tokens. Another participant, designated as B, will be allowed to deduct 0, 10, or 20 tokens from A (the deducted tokens don't go to B or anyone else). The last participant, C, will receive 10 tokens.

> You have been randomly assigned to be participant C. Recall that B is in a position to deduct tokens from A. In addition, B is scheduled to receive a payment of up to 10 tokens. But you get to decide whether to deduct tokens from B, depending on what he decides about deducting from A's tokens. If you deduct tokens from B, they would not go to A or you or anyone else.

> Before you make your decision, we want to explain the situation fully.

> You will decide about deducting from B for three cases, corresponding to *all three possible decisions of B*. Recall that B is in a position to deduct 0, 5, or 10 tokens from A (again, the deducted tokens don't go to B or anyone else). After we finish explaining the situation, you will be asked to decide about each possibility. After the experiment, we will check B's decision about deducting from A, and we will then look at your corresponding decision about that possibility. We will then follow through on your decision about that case and implement your decision.

At this point, participants in KC received the following:

> Before you make your decision about these three possibilities, we want to clarify that B knows that he is scheduled to receive 10 tokens. He also knows that participant C is in a position to have tokens deducted from his account depending on his decision. So if he receives less than 10 tokens, he will know that participant C has deducted from his account (though, of course, your identity is completely anonymous).

Participants in IC, on the other hand, received the following:

> Before you make your decision about these three possibilities, we want to clarify that B does not know that he is scheduled to receive any tokens. So, if he receives less than 10 tokens, he will not know that anyone has deducted from his account.

Participants in both KC and IC were then asked to make their decision per the following

instructions:

> Now please make your decision about deducting from B in three cases, corresponding to all three possible decisions of B.

> If B deducts 0 tokens from A (leaving A with 20 tokens), which do you choose:

- Deduct 10 tokens from B (leaving B with 0 tokens).
- Deduct 5 tokens from B (leaving B with 5 tokens).
- Deduct 0 tokens from B (leaving B with 10 tokens).

If B deducts 5 tokens from A (leaving A with 15 tokens), which do you choose:
- Deduct 10 tokens from B (leaving B with 0 tokens).
- Deduct 5 tokens from B (leaving B with 5 tokens).
- Deduct 0 tokens from B (leaving B with 10 tokens).

If B deducts 10 tokens from A (leaving A with 10 tokens), which do you choose:
- Deduct 10 tokens from B (leaving B with 0 tokens).
- Deduct 5 tokens from B (leaving B with 5 tokens).
- Deduct 0 tokens from B (leaving B with 10 tokens).

Having made their decision, participants were then asked to explain their choices. They were also asked whether the fact that B would know (or would not know) whether they deducted from his funds affected their decision concerning whether to deduct from B's funds.

Conditions B:

Participants in both KB and IB received the following information:

> As noted above, you have been grouped (randomly and anonymously) with two other participants. One participant, designated as A, is scheduled to receive 20 tokens. Another participant, designated as B, will be allowed to deduct 0, 10, or 20 tokens from A (the deducted tokens don't go to B or anyone else). The last participant, C, will receive 10 tokens.

Participants in KB then received the following information:

> You have been randomly assigned to be participant B. That means that you get to decide how much, if any, money, will be deducted from A. Before you make your decision, we want to explain the situation fully. Recall that A is scheduled to receive 20 tokens. You are scheduled to receive 10 tokens. However, the total number of tokens you get might be 10, 5, or 0, depending on what C decides. C will make decisions corresponding to each of your three possible decisions. In particular, C will decide whether (and how much) to deduct if you (i) deduct 10 tokens from A, (ii) deduct 5 tokens from A, (iii) deduct no tokens from A. After the experiment, we will check you decision and then look at what C decided about that option. We will then follow C's decision and deduct 10, 5, or 0 tokens from your scheduled allotment of 10 tokens.

Participants in IB, on the other hand, received the following information:

You have been randomly assigned to be participant B. That means that you get to decide how much, if any, money will be deducted from A. Recall that A is scheduled to receive 20 tokens.

Participants in both KB and IB were then asked to make their decision per the following instructions:

Please select one of the following:
- Deduct 10 tokens from A (leaving A with 10 tokens).
- Deduct 5 tokens from A (leaving A with 15 tokens).
- Deduct 0 tokens from A (leaving A with 20 tokens).

Having made their decision, participants in both conditions were then asked to explain their choices.

Condition A:

Participants in the A condition received the following instructions:

You have been randomly assigned to be participant A. That means that you are tentatively scheduled to receive 20 tokens, depending on what B decides. Since you are participant A, you do not make any decisions on this task.

After participant B has made a decision about deducting from your fund, we will put the resulting amount (corresponding to 0, 10, or 20 tokens) in your MTurk account.

Because the participants in A were not asked to make any decisions, this is all they received as part of Section 1. All participants in Condition C were compensated with an additional $1.20. Participants in condition B were compensated with an additional $0, $.60, or $1.20, depending on the decisions of the corresponding player in the C condition. Participants in condition A were compensated with an addition $1.20, $1.80, or $2.40, depending on the decisions of the corresponding player in the B condition.

Section 2: Explicit Retributive Question

Each participant was asked to state their level of agreement with the explicit retributive question we used in Studies 1 and 2 on a scale from 1 (strongly disagree) to 6 (strongly agree).

Section 3: Demographics

Upon participating in the economic game and noting their agreement with the explicit retributive

statement, participants were asked to respond to a demographic questionnaire.

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