Online Appendix for "Rejecting Non-Paternalist Motivation: An Experimental Test"

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A A Theory of Spectator Motivation for Implementing a State Upon a Group

In this appendix, we present a theory of spectator motivation for implementing a state upon a group. We consider the utility of a rational decision maker i implementing a state s upon a group $\boldsymbol{J}$ consisting of $N \geq 2$ individuals. We develop definitions of non-paternalist and paternalist motivations. We allow for i to have both types of motivation, and consider how her utility of implementing s changes with her type of motivation and her estimate of how many in $\boldsymbol{J}$ share her fairness view.

The world can be in either state s or its complement state s^c. We assume there is a monetary cost difference between s and s^c for i. The difference between incurring the monetary cost in s and s^c decreases i's utility by some constant, $c_i > 0$. Whether the state of the world is s or s^c changes outcomes for all members of the group $\boldsymbol{J}$. It affects i only through her other-regarding preferences and by her cost of implementing it.

We first consider non-paternalist motivation. We denote an arbitrary individual in the affected group $\boldsymbol{J}$ as j. A person i's non-paternalist utility of imposing s upon an individual j, who finds its complement state s^c to be the fair state, is defined as $v_i^{s^c}(s)$. We define non-paternalist motivation as follows.

Definition 1 ***Non-Paternalist Motivation*** *Assume a person j finds state s to be more fair than its complement state s^c. Then a person i with non-paternalist motivation will receive strictly higher non-paternalist utility from imposing s upon j than imposing s^c, $v_i^s(s) > v_i^s(s^c)$.*

Spectator i's difference in non-paternalist utility between implementing s or s^c for a person j finding either s or s^c more fair is then:

$$\Delta v_i^s \equiv v_i^s(s) - v_i^s(s^c),\ \Delta v_i^{s^c} \equiv v_i^{s^c}(s^c) - v_i^{s^c}(s). \tag{1}$$

We define that the decision maker i believes that a portion, $\alpha_i(s)$, of individuals in $\boldsymbol{J}$ prefer the state s.

$$\alpha_i(s) \equiv E_i \left[\frac{\text{Number of Individididuals in } \boldsymbol{J} \text{ preferring } s}{N} \right] \tag{2}$$

The expected non-paternalist utility difference for i between imposing s on the group $\boldsymbol{J}$ is then as follows.

$$N \left(\alpha_i(s) \Delta v_i^s - (1 - \alpha_i(s)) \Delta v_i^{s^c} \right) \tag{3}$$

We now define paternalist motivation.

Definition 2 ***Paternalist Motivation*** *A person i with paternalist motivation has a positive utility differential $\kappa_i > 0$ between imposing a state s and its complement state s^c upon a group of individuals $\boldsymbol{J}$, if and only if, i finds s to be more fair than s^c.*

Assume that i is aware that j finds s^c to be the fair state. The utility for j is not relevant to the paternalist motivation of i. Person i will have some utility $\kappa_i > 0$ of implementing s upon j regardless of the views of j.

We now consider i's decision to implement s upon $\boldsymbol{J}$ under both paternalist and non-paternalist motivations. Assume that the decision maker finds the state s to be the fair state of the world; all arguments hold, *ceteris paribus*, if she finds s^c to be the fair state. The expected utility for i to implement s upon $\boldsymbol{J}$, when the alternative to implementing is s^c, is then as follows.

$$E_i[\Delta u_i^s] = N \left(\alpha_i(s) \Delta v_i^s - (1 - \alpha_i(s)) \Delta v_i^{s^c} \right) + \kappa_i - c_i \tag{4}$$

The expected utility of implementing the state varies among decision makers. It is affected by the components of non-paternalist utility $\left(\alpha_i(s) \Delta v_i^s - (1 - \alpha_i(s)) \Delta v_i^{s^c} \right)$, the size of the group N, the paternalist utility κ_i, and the utility loss of implementing c_i. The decision maker will implement state s whenever (4) is positive. By the

definition of Δv_i^s in (1) and the definition of non-paternalist motivation, it holds that $\Delta v_i^s > 0$ and $\Delta v_i^{s^c} > 0$. From this and (4), it follows directly that decision makers with higher prevalence estimates and more non-paternalist motivation will have a higher utility of implementing s, i.e., $\frac{\partial E_i[\Delta u_i^s]}{\partial \alpha^i(s)} = N[\Delta v_i^s + \Delta v_i^{s^c}] > 0$.

We now briefly discuss the probability that a random decision maker in a group of decision makers with non-paternalist motivation $\boldsymbol{I}$ implements s, $[P_i = 1]$. If the preference parameters Δv_i^s and $\Delta v_i^{s^c}$ are drawn from distributions that are independent of the distribution of the belief parameter α_i, the probability that a random decision maker implements s, will be positively correlated with her prevalence estimate $\alpha_i(s)$. Furthermore, if decision makers are given information about the true prevalence of a fairness view among the workers, implying that it is lower than their expected prevalence, it will lower their non-paternalist motivation to implement, and weakly decrease the probability of a random spectator implementing. The size of the effect depends on how many decision makers in the group have their utility changed from positive to negative by the information, lowering their $\alpha_i(s)$. Hence, if all parameter distributions have continuous support for their entire domain, information increasing the median $\alpha_i(s)$ in a group will strictly increase the expected number of those implementing.

B Further Results and Discussion

In this appendix, we present further discussion of the results that are already presented in the main text of the article. We also present additional results, with discussion, which were omitted in the article due to length restrictions.

We conducted the experiment on Amazon's online platform for experiments, MTurk, where we recruited participants with IP addresses registered in the United States of America. We first gathered data from 336 workers. Among the workers, 33% found redistribution fair, while 67% found no redistribution fair. The information treatment consisted of informing spectators of this prevalence.

Table 1 in the main text of the paper, breaks down the spectators by control or treatment group by their fairness view and by whether they implemented the distribution they found fair. Spectators overestimate how many share their fairness view. This finding, defined as projection bias (Ross et al., 1977), is in line with previous studies on projection bias across a wide number of settings (Ross et al., 1977; Alicke et al., 2005).

B.1 The Majority of Spectators Are Willing to Pay to Implement Their Fairness View.

About two-thirds of spectators are willing to pay two cents to implement their preferred redistribution. Fairness views are uncorrelated with willingness to pay to implement. The portion of participants implementing is stable at two-thirds for both fairness views and treatment or control sessions. This can be seen from the second column labelled "Percentage of Spectators" in Table 1 in the main text of the paper.

B.2 Willingness to Implement Fairness Views Is Uncorrelated With Prevalence Estimates $\alpha_i(s)$.

Spectators' willingness to implement their fairness view is uncorrelated with their prior prevalence estimate of how many share their view, $\alpha_i(s)$. This can be seen from the pairwise comparison of the average prevalence estimates in the far-right column of Table 1 in the main text of the paper. The average prevalence estimates are similar for participants choosing to implement or not implement. Prevalence estimates are on average similar in both the information treatment where the true prevalence was revealed and in the control treatment.

We regress the probability of a spectator in the control group implementing her preferred redistribution s on her prevalence estimate and on how many found her preferred form of redistribution s fair, $\alpha_i(s)$.

$$[P_i = 1] = \beta_0 + \beta_1 \alpha_i(s) + \epsilon_i \tag{5}$$

Table 3 shows the results from estimating Equation (5). β_1 is estimated to be -0.0002 (0.900) for the control group.[1] The result is robust for the pooled sample and the treatment group data.

B.3 There Is No Causal Effect of Receiving Information About True Prevalence, $\alpha^W(s)$, on Spectators' Willingness to Implement Fairness View.

Being informed about the true prevalence of their fairness view had no effect on the probability that spectators implemented the redistribution alternative they found fair. The spectators in the treatment session are shown the true prevalence of their redistribution preference among the workers before deciding whether to implement. The numbers they are shown were from the first worker session in

[1]The probability of no effect given the observed estimate, P-value, are stated in parentheses throughout the main paper.

Table 3: Estimation of Equation (5): Correlation between willingness to implement fairness view and prevalence estimate of own fairness view, $\alpha_i(s)$.

	Dependent Variable: $[P_i = 1]$		
	Pooled Sample	Control Group	Treatment Group
$\alpha_i(s)$	0.0002	−0.0002	0.001
	(0.001)	(0.001)	(0.001)
Constant	0.667***	0.695***	0.644***
	(0.059)	(0.087)	(0.080)
Observations	672	307	365
R^2	0.0001	0.0001	0.001
Adjusted R^2	−0.001	−0.003	−0.002
Residual Std. Error	0.467	0.466	0.469
F Statistic	0.056	0.016	0.190

Note: *p < 0.1; **p < 0.05; ***p < 0.01.

which 67 percent of workers found no redistribution to be fair, while 33 percent found redistribution to be fair. Defining a binary variable D_T equal to 1 when a spectator received treatment, we estimate the treatment effect by running the following.

$$[P_i = 1] = \beta_0 + \beta_1 D_T + \epsilon_i \tag{6}$$

The treatment effect of the information treatment for the full sample and the sub-samples of spectators finding redistribution and no redistribution is shown in Table 4. The effect of being in the information treatment, β_1, was estimated to be -0.007(0.84).

To allow for an interaction effect between the prevalence estimate and treatment effect, we also estimated a difference-in-difference interaction of the effect of being in the treatment group and having a prevalence estimate higher than the true prevalence among the workers, $D_{\alpha_i(s)>\alpha_W(s)}$, as follows.

$$[P_i = 1] = \beta_0 + \beta_1 D_{\alpha^i(s)>\alpha_W} + \beta_2 D_T + \beta_3 [D_T \times D_{\alpha_i(s)>\alpha_W}] + \epsilon_i \tag{7}$$

Table 4: Estimation of Equation (6): Treatment Effect of Being Informed About the True Prevalence of Fairness View.

	Dependent Variable: $[P_i = 1]$		
	All Spectators	Find Redistribution Fair	Find No-Redistribution Fair
D_T	−0.007	−0.075	0.020
	(0.036)	(0.070)	(0.042)
Constant	0.684***	0.694***	0.680***
	(0.027)	(0.052)	(0.031)
Observations	672	190	482
R^2	0.0001	0.006	0.0005
Adjusted R^2	−0.001	0.001	−0.002
Residual Std. Error	0.467	0.477	0.463
F Statistic	0.041	1.163	0.219

Note: *p < 0.1; ** p< 0.05; ***p < 0.01 .

The results from estimating Equation (7) are shown in column (3) Difference-in-Difference of Table 2 in the main text of the paper. The parameters β_1, β_2, and β_3 are estimated to be 0.046, 0.064, and -0.100, respectively. None of β_1, β_2, or β_3 is statistically different from zero. This implies there was no difference in the effect of being informed about the true prevalence on the probability of implementing for spectators with high or low prior prevalence estimates. In other words, the effect of being positively or negatively surprised about the prevalence of one's fairness view on the decision to implement equals zero. This suggests that being informed has no effect on participants' decision to implement. If the true prevalence was relevant to participants with non-paternalist motivation being informed that their prior belief of prevalence was deflated or inflated, it should have the opposite effects, giving a negative β_3 estimate. The absence of differences between these groups is strong evidence that information about the true prevalence was irrelevant to the implementation decision.

The treatment effect is robustly zero considering sub-samples of spectators with particularly high prior estimates of the commonness of their fairness view. In other words, there was no treatment effect for individuals with prior beliefs of prevalence particularly far from the actual prevalence.

B.4 There Is No Correlation Between Projected Prevalence and Spectators' Willingness to Implement Their Fairness Views Among Sub-Samples That Have High Projection Biases.

Table 5 presents correlations between projected prevalence and spectators' willingness to implement their fairness views within sub-samples. We denote the actual prevalence of workers' fairness views as $\alpha_W(s)$. Three regressions are run, corresponding to the sub-samples where the project biases, $[\alpha_i(s) - \alpha_W(s)]$, are larger than 20%, 30%, and 40%, respectively. We found insignificant treatment effects with varying direction of treatment effect when running Equation (6) for among these three sub-samples of spectators with large prevalence estimate biases.

Table 5: Correlation Between Projected Prevalence and Spectators' Willingness to Implement Their Fairness Views.

	Dependent Variable: $[P_i = 1]$		
Projection Bias	$> 20\%$	$> 30\%$	$> 40\%$
$\alpha_i(s)$	0.002	0.006	0.010
	(0.003)	(0.004)	(0.012)
Constant	0.468**	0.178	−0.203
	(0.211)	(0.325)	(0.999)
Observations	180	85	34
R^2	0.004	0.025	0.021
Adjusted R^2	−0.001	0.013	−0.010
Residual Std. Error	0.479	0.477	0.496
F Statistic	0.765	2.139	0.680

Note: *p < 0.1; **p < 0.05; ***p < 0.01.

B.5 Results From the Kolmogorov-Smirnov Tests.

Assuming there is a treatment effect among the spectators that are informed of the true prevalence, one would expect to observe a difference in the projected

prevalence distributions of the control-group spectators who chose to implement and of the treatment-group spectators who chose to implement.

We apply the two-sample Kolmogorov-Smirnov test in this subsection.[2] The null hypothesis of the two-sample Kolmogorov-Smirnov test is that the two samples are drawn from the same distribution. If the null hypothesis is rejected, then one concludes that the two samples are drawn from different distributions.

B.5.1 Between the Control and Treatment Groups

The test (1) in Table 6 is a two-sample Kolmogorov-Smirnov test on the projected prevalence between the control-group spectators and the treatment-group spectators. The null hypothesis is that the control-group spectators' projected prevalence and the treatment-group spectators' projected prevalence come from the same distribution. The p-value is 0.800. Therefore, the null hypothesis cannot be rejected.

The results means that the prior projected prevalences are from the same distribution for those in the control group and for those in the treatment group.[3] Should there be a treatment effect, the treatment effect would be a clean result because the prior projected prevalence distributions are not statistically different between the control and treatment groups.

B.5.2 Between the Control and the Treatment Groups Spectators That Were Willing to Implement

Figure 1 in the main text of the paper, shows the distribution of prevalence estimates for sub-samples of fairness views and whether participants are in the treatment or control group. The bars show the total number of spectators with a prevalence estimate within the bin on the horizontal axes. The bars are divided into spectators choosing to implement or not to implement the distribution they

[2] All test are done using *kt.test()* function from the R package *stats*.

[3] Note that for the treatment group spectators, the projected prevalence was elicited before they were told the true prevalence.

Table 6: Results of the Kolmogorov-Smirnov Tests

Test	Distribution 1	Distribution 2	P-Value
(1)	Control-group spectators (n = 307)	Treatment-group spectators (n = 365)	0.761
(2)	Control-group spectators who were willing to implement (n = 210)	Treatment-group spectators who were willing to implement (n = 247)	0.689
(3)	Control-group spectators who preferred redistribution and were willing to implement (n = 59)	Treatment-group spectators who preferred redistribution and were willing to implement (n = 65)	0.967
(4)	Control-group spectators who preferred no redistribution and were willing to implement (n = 151)	Treatment-group spectators who preferred no redistribution and were willing to implement (n = 182)	0.625
(5)	Treatment-group spectators who were willing to implement (n = 247)	Treatment-group spectators who were not willing to implement (n = 118)	0.986
(6)	Treatment-group spectators who preferred redistribution and were willing to implement (n = 65)	Treatment-group spectators who preferred redistribution and were not willing to implement (n = 40)	0.227
(7)	Treatment-group spectators who preferred no redistribution and were willing to implement (n = 182)	Treatment-group spectators who preferred no redistribution and were not willing to implement (n = 78)	0.682

find fair. Comparing those who prefer no redistribution in the control and treatment groups, the distributions of prevalence projections are similar, as are the percentage of spectators willing to pay to implement. The same holds for those who prefer redistribution in the control and treatment groups.

To statistically examine our graphical observation, we conduct three two-sample Kolmogorov-Smirnov tests. The tests and the results are reported as tests (2)–(4) in Table 6.

In test (2), the null hypothesis is that the projected prevalence of the control-group spectators that were willing to implement and the projected prevalence of the treatment-group spectators that were willing to implement are from the same distribution. The p-value is 0.700. We cannot reject the null hypothesis. This suggests that the projected prevalence between the control-group and treatment-group spectators that were willing to implement are from the same distribution.

In test (3), the null hypothesis is that the projected prevalence of the control-group spectators that preferred redistribution and were willing to implement and the projected prevalence of the treatment-group spectators that preferred redistribution and were willing to implement are from the same distribution. The p-value is 1.000. We cannot reject the null hypothesis. This suggests that the projected prevalence between the control-group and treatment-group spectators that preferred redistribution and were willing to implement are from the same distribution.

In test (4), the null hypothesis is that the projected prevalence of the control-group spectators that preferred no redistribution and were willing to implement and the projected prevalence of the treatment group spectators that preferred no redistribution and were willing to implement are from the same distribution. The p-value is 0.600. We cannot reject the null hypothesis. This suggests that the projected prevalence between the control-group and treatment-group spectators that preferred no redistribution and were willing to implement are from the same distribution.

To summarize the results from tests (1)–(4), the distributions of projected prevalence between the control-group spectators and the treatment-group spectators are from the same distribution.

B.5.3 Between Control-Group Spectators That Chose to Implement and That Chose to Not Implement

Three two-sample Kolmogorov-Smirnov tests to examine the projected prevalence distributions between those who chose to implement and those who chose to not implement, within the treatment group. The results are reported in tests (5)–(7) in Table 6.

Test (5) is concerned with the projected prevalence between all those who chose to implement and all those who chose not to implement, within the treatment group. Test (6) is similar to test (5), but only the spectators that preferred redistribution are included. Test (7) is similar to test (5), but only the spectators that preferred no redistribution are included.

In all three tests, we cannot reject the null hypotheses. Therefore, for those spectators who chose to implement and those who chose not to implement, their projected prevalences are drawn from the same distribution. This means that there is no statistical difference in projected prevalence distributions between those who chose to implement and those who chose not to implement.

C Experimental Design

In Appendix C, we present the experimental design. Participants are randomly assigned to one of two roles: worker or spectator. The main focus of the study is on the spectators' choices. The workers complete their task so that the choices made by spectators are about concrete outcomes rather than hypothetical scenarios.

First, workers complete two rounds of work where they are given one minute to identify which number is next to a specified letter on a list of numbers and letters. Each worker draws a unique price between one and 10 cents; the worker earns this price per correctly identified number–letter combination. Before completing the work task, the workers are asked whether they find it fair to redistribute earnings in a scenario of a pair of workers who have completed a task identical to the one they are to perform subsequently. The redistribution alternatives are that either workers are each paid an equal half of their combined earnings, referred to as the redistribution option, or that the workers are paid a wage according to their separate earnings, referred to as the no-redistribution option.

Second, the two spectator sessions, a control session and a treatment session, are held simultaneously. Spectators are randomly allocated to sessions. In both sessions, the spectators are first presented the same hypothetical scenario as the workers (i.e., a pair of workers had completed tasks and have earned a random price per solved task). The spectators are then asked whether they find the redistribution or the no-redistribution option fair. In the control session, the spectators are then given a choice to pay two cents to implement their preferred redistribution upon a pair of workers. The cost of implementing the spectator's view of redistribution, two cents, is deliberately low to permit identification of very "weak" preferences for implementing. Spectators are informed that if they do not pay two cents to implement their preferred distribution, the distribution they found least fair will be implemented. In the treatment-group spectator session, the spectators are informed about the true prevalence of their redistribution preferences among the workers after giving their prior belief but before they make the choice

of whether to pay two cents to implement it. This is done to investigate whether knowing the true prevalence will affect the probability of a spectator being willing to pay to implement her third-party preference.

The experiment instructions are presented in Appendix D.[4]

C.1 Experiment Overview

Each spectator makes a decision for one round of work by one pair of workers. Each worker works four separate rounds and is paired with a different worker and different spectator in each round. Participants are randomly allocated as workers or to one of the two spectator treatments.

C.2 Sequence for Workers

- *Stage 1*: The workers are asked whether they found redistribution or no redistribution fair in a hypothetical scenario.
- *Stage 2*: Workers are then allocated to pairs. Workers perform a work task consisting of identifying what number is next to a letter on a list of letter–number combinations. Each worker draws a random price and earns the number of correctly identified letters multiplied by his or her drawn price.
- *Stage 3*: Workers are paid according to the choice of one spectator.

For each pair of workers, stages 2 and 3 are repeated for four rounds. In each round, the workers are paired with a new partner and the pair is assigned to a new spectator. Each spectator decides whether to implement her preferred redistribution preference upon one pair of workers for one round.

C.3 Sequence for Control-Group Spectators

- *Stage 1*: Spectators are asked for their third-party redistribution preferences.

[4]Participants were randomly allocated to one of the two sessions with equal probability until the total sample size of 672 was reached. The sample sizes differ in the control group and the treatment group because of small sample issues with our true randomization algorithm.

- *Stage 2*: Spectators are asked for their beliefs regarding how many of the workers shared their third-party preferences, $\alpha^i(s)$.

- *Stage 3*: Spectators choose whether to pay two cents to implement their preferred redistribution option.

C.4 Sequence for Treatment-Group Spectators

- *Stage 1*: Spectators are asked for their third-party redistribution preferences.

- *Stage 2*: Spectators are asked for their beliefs regarding how many of the workers share their third-party preferences, $\alpha^i(s)$.

- *Stage 3*: Spectators are informed about the empirical prevalence of their redistribution preference among the workers, α_W.

- *Stage 4*: Spectators choose whether to pay two cents to implement their preferred redistribution option.

D Experimental instructions

All text in italics is left out of the experiment and only included for a reader overview. Screens indicate when the program will change text.

D.1 Worker Instructions

D.1.1 *Screen 0: Instruction on M:Turk*

Task Link Instructions (Click to expand)

Thank you for your participation in this task. Please read all instructions carefully.

The results from this task will be used in a research project at the [Institutional information redacted]. Participation in the study is completely voluntary.

You are free to decline to participate, or to end participation at any time and for any reason.

Your will remain anonymous throughout the task. None of the information collected can be traced back to individual participants. We will only use your participant ID to assign payments and to check that you have not participated in this task before.

The duration of the task is approximately 5 min.

If you have any questions regarding this task, please contact [Email redacted].

To verify that you have actually completed the task, you are required to enter a unique participant ID below. You will receive your participant ID at the end of the task, following the link below.

Task link: *Link to the on-line task*

Provide the participant ID here: ____

D.1.2 *Screen 1: Introduction*

Thank you for your participation in this task. Please read all instructions carefully.

The results from this task will be used in a research project at [Institutional information redacted]. Participation in the study is completely voluntary.

You are free to decline to participate, or to end participation at any time and for any reason.

Your will remain anonymous throughout the task. None of the information collected can be traced back to individual participants. We will only use your participant ID to assign payments and to check that you have not participated in this task before.

The duration of the task is approximately 5 min.

If you have any questions regarding this task, please contact [Email redacted].

Click the >> button to indicate that you have read and understand the above information and that you agree to participate in this study.

D.1.3 *Screen 2: Hypothetical Scenario*

Assume two workers have been completing an identical task. The task is identifying the number on a list that is next to a given letter. The worker gets paid per correctly identified word. Each worker gets paid a separate randomly drawn price. The price can be any whole number from 1 to 10 cents.

Elicit Hypothetical Preferences Which of the payment options do you find to be the most fair option?

1. No-redistribution: Each worker is paid separately for their work. In other words the workers get paid for the number of words they identified times the price they are randomly assigned.

2. Redistribution: The total earnings of the two of workers are divided equally among the workers. In other words each worker gets paid the sum of the payments of the two workers divided by two.

D.1.4 *Screen 3: Work task*

You are now going to perform a letter-number decoding task equal to that described in the previously described scenario. A sequence of letters with corresponding numbers will be displayed on the screen. You should write the number corresponding to the given letter in the box below the sequence.

An example of the task is provided below *(Figure 2)*. You should type the number that corresponds to the letter O, which in this case is 47.

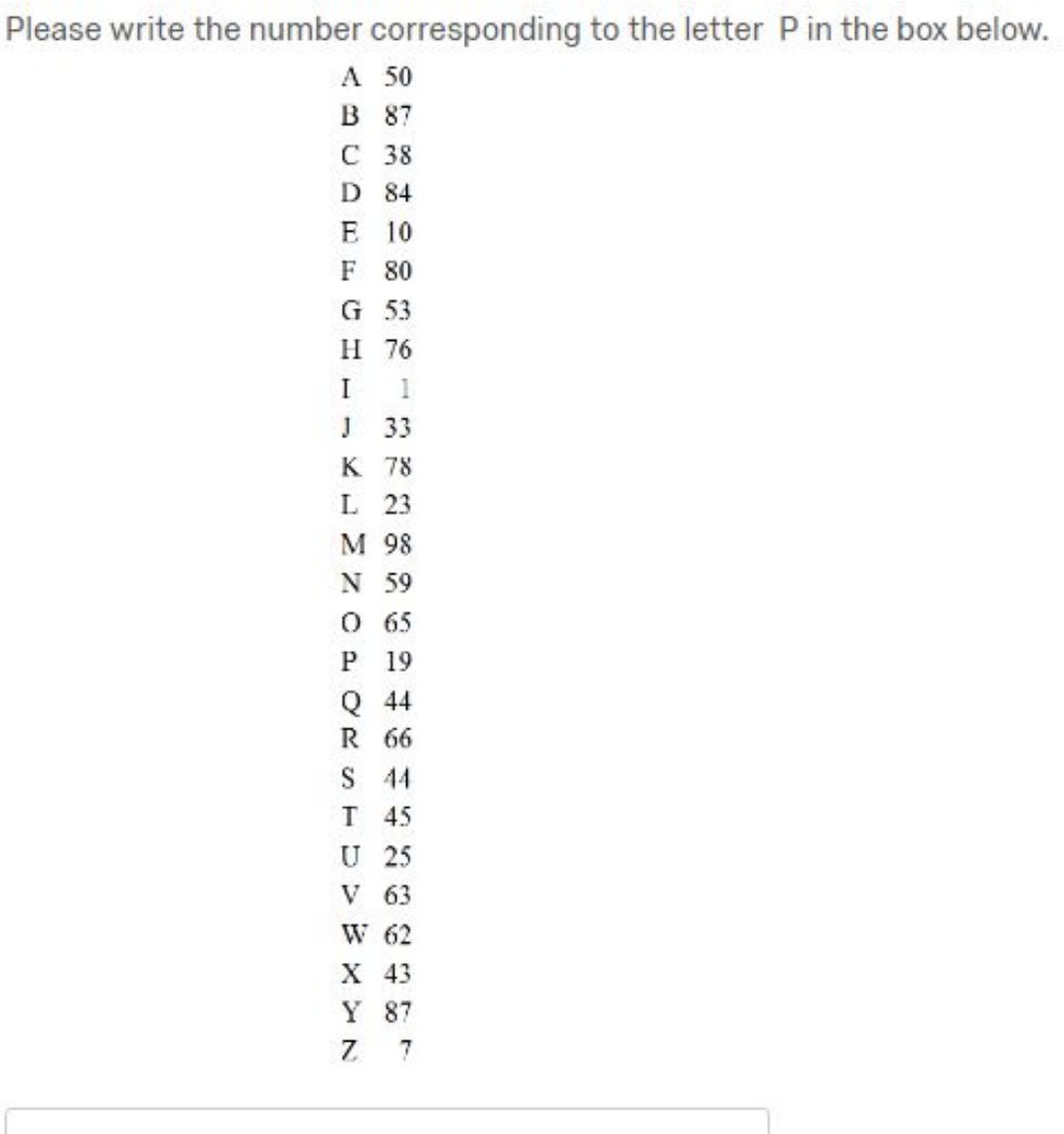

Figure 2: Example of letter identifier list.

A new sequence will be displayed directly below the first. You will not know whether your answers are correct until the end of the task. The task will last for

60 seconds.

Remaining time will be displayed at the top of the page.

After completing the task a price between 1 and 10 cents per word will be drawn at random. Another experimental participant will choose whether your earnings will be redistributed with another worker, or whether you will receive payment equal to your earnings.

D.1.5 *Screen 4*

You will now perform the letter-number decoding task.

When you are ready, press >> to start the task.

D.1.6 *Screen 5*

Twenty letter identifier list will appear for the workers. Each worker is given one minute to complete as many tasks as possible.

D.1.7 *Screen 6*

You solved *(number of correctly identified numbers).*

You will now perform the letter-number decoding task one more time.

When you are ready, press >> to start the task.

D.1.8 *Screen 7*

Twenty letter identifier list will appear for the workers. Each worker is given one minute to complete as many tasks as possible.

D.1.9 *Screen 8: Information of Payment*

You solved *(number of correctly identified numbers in the second round)* this round at the drawn price of *(randomly drawn price in the second round)* cents.

In addition, you solved *(number of correctly identified numbers in the first round)* in the first round at the drawn price of *(randomly drawn price in the first*

round) cents.

Thank you for participating in the study. Please remember that your participant ID is *(randomly generated participant ID)*.

You will receive your payment within 2 weeks.

When you are ready, it is very important that you press >> to end the survey! Please remember to submit your participant ID *(randomly generated participant ID)* in Amazon MTurk!l

D.2 Spectator Session: Control-Group

D.2.1 *Screen 0: Instruction on M:Turk*

Survey Link Instructions (Click to expand)

Thank you for your participation in this survey. Please read all instructions carefully.

The results from this survey will be used in a research project at the [Institutional information redacted]. Participation in the study is completely voluntary.

You are free to decline to participate, or to end participation at any time and for any reason.

Your will remain anonymous throughout the survey. None of the information collected can be traced back to individual participants. We will only use your participant ID to assign payments and to check that you have not participated in this survey before.

The duration of the survey is approximately 5 min.

If you have any questions regarding this survey, please contact [Email redacted].

To verify that you have actually completed the survey, you are required to enter a unique participant ID below. You will receive your participant ID at the end of the survey, following the link below.

Survey link: *Link to the on-line survey*

Provide the participant ID here: ____

D.2.2 *Screen 1: Introduction*

Thank you for your participation in this survey. Please read all instructions carefully.

The results from this survey will be used in a research project at the [Institutional information redacted]. Participation in the study is completely voluntary.

You are free to decline to participate, or to end participation at any time and for any reason.

Your will remain anonymous throughout the task. None of the information collected can be traced back to individual participants. We will only use your participant ID to assign payments and to check that you have not participated in this task before.

The duration of the survey is approximately 5 min.

If you have any questions regarding this survey, please contact [Email redacted].

Click the >> button to indicate that you have read and understand the above information and that you agree to participate in this study.

D.2.3 *Screen 2: Hypothetical Scenario*

Same as Screen 2 of workers.

D.2.4 *Screen 3: Real Scenario*

There has been performed an experiment like the one described on the M:Turk platform with participants like yourself. Worker participants completed the task as described and drew a random price between 1 and 10 cents. Before completing the work task the workers were asked which of the payment options, redistribution or no-redistribution they found to be the fair option.

Elicit α: For Participants With Third Party Preferences for Redistribution Among 100 worker participants how many do you think find the redistribution option fair?

Elicit α: For Participants With Third Party Preferences for No-Redistribution Among 100 worker participants how many do you think find the no-redistribution option fair?

D.2.5 *Screen 4A: Elicit Real 2 Cent Preferences for Participants With Third Party Preferences for Redistribution*

You are to decide how payment should be done for one pair of worker participants. You can pay 2 cents of your 1.11 dollar participation earning to implement the distribution you previously stated you found to be the fair option: the redistribution option.

I choose to:

1. Pay 2 cents to implement the redistribution option.
2. Not pay 2 cents. The no-redistribution option will then be implemented.

D.2.6 *Screen 4B: Elicit Real 2 Cent Preferences for Participants With Third Party Preferences for No-Redistribution*

You are to decide how payment should be done for one pair of worker participants. You can pay 2 cents of your 1.11 dollar participation earning to implement the distribution you previously stated you found to be the fair option: the no-redistribution option.

Would you like to pay 2 cents to implement the no-redistribution option?

I choose to:

1. Pay 2 cents to implement the no-redistribution option.
2. Not pay 2 cents. The redistribution option will then be implemented.

D.2.7 *Screen 5: End*

Thank you for participating in the study. Please remember that your participant ID is *(randomly generated participant ID)*.

You will receive your payment within 2 weeks.

When you are ready, it is very important that you press >> to end the survey! Please remember to submit your participant ID *(randomly generated participant ID)* in Amazon MTurk!

D.3 Spectator session: Treatment-group

For the treatment-group spectator session, everything is identical as in the control-group spectator session, except that an additional screen is added between Screen 3 and Screen 4. In the new screen, the following treatment text is displayed.
For treatment group: Revelation of empirical α for participants with third party preferences for redistribution:

Among 100 worker participants, x% found the redistribution option to be the most fair option.

For treat group: Revelation of empirical α for participants with third party preferences for no-redistribution:

Among 100 worker participants, x% found the no-redistribution option to be the most fair option.

References

Alicke, Mark D., David A. Dunning, and Joachim Krueger, *The Self in Social Judgment*, Hove, United Kingdom: Psychology Press, 2005.

Ross, Lee, David Greene, and Pamela House, "The 'False Consensus Effect': An Egocentric Bias in Social Perception and Attribution Processes," *Journal of Experimental Social Psychology*, 1977, *13* (3), 279–301.