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 APPENDIX

## A Supplemental Results

### A.1 Recipients Do Not Distinguish Between the Two Unfair Outcomes, *ceteris paribus*

In this section, we provide evidence supporting the claim that recipients do not distinguish between the two unfair outcomes. To further justify our practice of averaging the punishment choice of each recipient for the two unfair allocations within each category, we also show that our main results do not change qualitatively if we restrict the sample to either the most-harmed or the least-harmed recipient.

In the *Choice* treatment, when the dictator chooses an unfair allocation directly, 43 (53%) out of the 81 recipients who are *most harmed* ( $R_1$  for (9, 9, 0, 2) and  $R_2$  for (9, 9, 2, 0)) choose to incur the \$1 punishment cost and exactly the same number of recipients who are *least harmed* do. When the dictator delegates, 47 (58%) of the recipients who are most-harmed choose to incur the punishment cost, while 42 (52%) of those who are least-harmed choose to punish. A two-sample test of proportions cannot reject the hypothesis that these punishment rates are the same ( $z = 0.79$ ,  $p = 0.43$ ).

Similar results hold for the *Random* treatment. When the dictator chooses an unfair allocation directly, 17 (37%) out of the 46 recipients who are most harmed choose to incur the \$1 punishment cost, and 20 (43%) of the ones that are least harmed do so ( $z = 0.64$ ,  $p = 0.52$ ). When the dictator delegates, 15 (32%) of the most-harmed recipients choose to punish, while 17 (37%) of the least-harmed do. Again we cannot reject the hypothesis that these punishment rates are the same ( $z = 0.44$ ,  $p = 0.66$ ).

Examining the mean and distribution of the deductions chosen by those who did punish leads to the same conclusion. In the *Choice* treatment a two-sample  $t$ -test with unequal variance cannot reject the hypothesis ( $t = 0.48$ ,  $p = 0.63$ ) that the same amount was deducted from the dictator on average by the least harmed (\$4.95) and the most-harmed recipient (\$4.77) when the dictator directly choose a selfish allocation. A two-sample Kolmogorov-Smirnov test cannot reject the hypothesis that the distributions of deductions are equal ( $p = 0.90$ ). When  $D$  delegates and  $N$  chooses, \$3.40 is deducted on average by the most-harmed recipient and \$3.69 is deducted by the least-harmed. We cannot reject the hypothesis that these deductions are equal in means ( $t = 0.52$ ,  $p = 0.60$ ) or distributions (KS  $p > 0.99$ ).

Similarly, in the *Random* treatment we cannot reject the hypothesis ( $t = 0.15$ ,  $p = 0.88$ ) that the same amount is deducted from the dictator on average by the least harmed (\$5.06) and the most-harmed recipient (\$4.95) when the dictator chooses unfair directly. Similarly we cannot reject the hypothesis that the distributions of deductions are equal (KS  $p > 0.99$ ). When  $D$  delegated and  $N$  had a choice, \$4.00 was deducted on average by the most-harmed recipient and \$4.41 was deducted by the least-harmed. Again we cannot reject the hypothesis that these deductions are equal in means ( $t = 0.39$ ,  $p = 0.70$ ) or distributions (KS  $p = 0.92$ ).

Restricting attention to only the most-harmed or only the least harmed recipient does affect the significance of some of our main results, but does not change any of them qualitatively. In the *Choice* treatment, given an unfair allocation, delegation reduces  $D$ 's average punishment by the most-harmed recipient from \$2.53 to \$1.93, a drop that is significant according to both a two-sample, one-tailed test of differences in means ( $t = 1.52$ ,  $p = 0.07$ ) and a Wilcoxon signed-rank test ( $z = 3.34$ ,  $p < 0.01$ ). Delegation also significantly reduces ( $t = 1.76$ ,  $p = 0.04$ ;  $z = 4.42$ ,  $p < 0.01$ )  $D$ 's average punishment by the least-harmed recipient from \$2.63 to \$1.91.

In the *Random* treatment, given an unfair allocation, delegation reduces  $D$ 's average punishment by the most-harmed recipient from \$1.87 to \$1.54 and by the least-harmed recipient from \$2.15 to \$1.63. While these drops are not uniformly significant ( $t = 0.59$ ,  $p = 0.56$ ;  $z = 0.75$ ,  $p = 0.46$  and  $t = 0.93$ ,  $p = 0.18$ ;  $z = 2.66$ ,  $p < 0.01$ , respectively) the direction of the effects remains the same as in our primary analysis.

Turning to the intermediary's punishment, when  $D$  chooses directly in the *Choice* treatment, the mean deduction from  $N$  by the most-harmed recipient, \$1.81, is not significantly different ( $t = 0.13$ ,  $p = 0.90$ ) from that made by the least-harmed recipient, \$1.77, nor are the distributions significantly different (KS  $p > 0.99$ ). When  $D$  delegates, the mean deduction from  $N$  by the most-harmed recipient, \$3.30, is not significantly different ( $t = 0.84$ ,  $p = 0.40$ ) from that made by the least-harmed recipient, \$2.93, while the distributions again are not significantly different (KS  $p = 0.98$ ). Also in the *Random* treatment, when  $D$  chooses directly the mean deduction from  $N$  by the most-harmed recipient, \$1.29, is not significantly different ( $t = 0.97$ ,  $p = 0.34$ ) from that made by the least-harmed recipient, \$1.85, nor are the distributions significantly different (KS  $p = 0.97$ ). When  $D$  delegates, the mean deduction from  $N$  by the most-harmed recipient, \$1.60, is not significantly different ( $t = 1.29$ ,  $p = 0.21$ ) from that made by the least-harmed recipient, \$2.47, while also the distributions again are not significantly different (KS  $p = 0.42$ ).

When  $D$  delegates,  $N$ 's average punishment by the most-harmed recipient in the *Choice* treatment increases from \$0.96 to \$1.91, allowing us to reject the null hypothesis of equal punishment ( $t = 3.14$ ,  $p < 0.01$  and  $z = 5.12$ ,  $p < 0.01$ ) and the same is true for the punishment by the least-harmed recipient ( $t = 2.04$ ,  $p = 0.02$  and  $z = 3.68$ ,  $p < 0.01$ ), which increases from \$0.94 to \$1.51. In contrast, the increase in  $N$ 's average punishment by the most-harmed recipient in the *Random* treatment from \$0.48 to \$0.52, only a fraction of the jump seen in the *Choice* treatment, is not significant ( $t = 0.18$ ,  $p = 0.43$  and  $z = 0.60$ ,  $p = 0.55$ ), nor is the increase in punishment by the least-harmed recipient ( $t = 0.31$ ,  $p = 0.38$  and  $z = 0.98$ ,  $p = 0.33$ ), from \$0.80 to \$0.91, which is only a fraction of the jump seen in the *Choice* treatment.

## A.2 Unfair Allocations are Punished More than the Fair Allocation

The mean punishment in the *Choice* treatment is higher when either unfair option is chosen compared to when the fair option is chosen. A two-sample  $t$ -test with unequal variance rejects the hypothesis that the mean deduction from  $D$  following her direct choice of an unfair allocation is the same as that when she chooses fairly ( $t = 8.36$ ,  $p < 0.01$ ), as does a Wilcoxon signed-rank test ( $z = 6.76$ ,  $p < 0.01$ ). We can reject the hypothesis ( $t = 6.67$ ,  $p < 0.01$ ;  $z = 6.27$ ,  $p < 0.01$ ) that the mean deductions when  $D$  delegates and when she chooses fairly are equal. A similar result holds for the  $N$ 's punishment: the mean deduction following the equal split is significantly smaller than the deduction followed a direct unfair choice ( $t = 4.75$ ,  $p < 0.01$ ;  $z = 5.51$ ,  $p = 0.01$ ). The same is true for the mean deduction following the equal split and the deduction followed a delegated unfair choice ( $t = 6.67$ ,  $p < 0.01$ ;  $z = 6.27$ ,  $p < 0.01$ ).

Similarly, we can reject the hypothesis ( $t = 4.88$ ,  $p < 0.01$ ;  $z = 4.44$ ,  $p < 0.01$ ) that the mean deduction from dictators in the *Random* treatment when the dictator chooses directly an unfair allocation and when choosing fairly are equal. We can also reject the hypothesis ( $t = 4.33$ ,  $p < 0.01$ ;  $z = 3.92$ ,  $p < 0.01$ ) that the mean deduction when  $D$  delegates and when she chooses the equal split are equal. For the intermediary, the mean deduction following the equal split is significantly smaller than the deduction followed a direct unfair choice ( $t = 2.36$ ,  $p = 0.02$ ;  $z = 2.72$ ,  $p < 0.01$ ). This holds as well for the mean deduction following the equal split and the deduction following a delegated unfair choice ( $t = 2.54$ ,  $p = 0.01$ ;  $z = 3.15$ ,  $p < 0.01$ ).

## A.3 Punishment of the Non-punishing Recipient

Punishment of the non-punishing recipient is non-zero, but negligible. In the *Choice* treatment, the non-punishing recipient faces an average deduction of \$0.06 when the dictator directly chooses an unfair allocation, \$0.20 when she chooses fairly and \$0.04 when she delegates. In the *Random* treatment, the average deductions are \$0.03, \$0.15, and \$0.03, respectively.

## A.4 Belief Elicitation

While social preferences such as inequity aversion or simple altruism can explain why some dictators might choose the fair allocation, our results raise the question of why any dictator would choose an unfair allocation directly, instead of delegating the choice to the intermediary. To answer this question, we turn to the beliefs expressed by the dictators.

After the experiment had finished, in four of the fourteen sessions in the *Choice* treatment and in all eight sessions in the *Random* treatment we elicited beliefs with respect to the deduction behavior of the receivers. The dictators had to indicate for each of the five scenarios whether they expect the receiver  $R_1$  to deduct points, and, if yes, how much they expect  $R_1$  to deduct from each of the respective subjects in his/her group. After taking their respective choice, the dictators were asked what they believe the choice of participant  $R_1$  will be. In the *Random* treatment, when the participant's response was within +/- \$1 of the true punishment of the  $R_1$  in their group, she would earn an additional \$5. In the *Choice* treatment, the benchmark was the average punishment level of the  $R_1$ s from the first 10 sessions.

First, we note the accuracy of the aggregate beliefs: mostly, the dictators correctly predict the qualitative features of the punishment schedule, on average. In the *Choice* treatment, on average, dictators expect to be punished significantly *more* for choosing either of the two unfair allocations directly (\$3.04) than for delegating (one-sided t-test, \$1.42,  $t = 2.83$ ,  $p < 0.01$ ,  $N = 12$ ). They expect a low punishment for choosing the equal allocation (\$0.75). The beliefs of about the intermediary's punishment conform to the observed pattern to a lesser degree: the differences are not statistically significant. The mean belief expressed by dictators about the average amount (\$2.25) deducted from  $N$  when she delegates exceeds that following her direct choice of an unfair allocation (\$1.42;  $t = 1.53$ ,  $p = 0.07$ ).

Also in the *Random* treatment, dictators expect to be on average punished more for choosing either of the two unfair allocations directly (\$2.89) than for delegating (\$2.13,  $t = 1.32$ ,  $p = 0.10$ ,  $N = 23$ ). They expect a low punishment for choosing the equal allocation (\$0.09). The mean belief expressed by dictators about the average amount (\$1.39) deducted from  $N$  when she delegates is lower than the ones following her direct choice of an unfair allocation (\$1.65); in line with the true punishment, the difference is again not statistically different ( $t = 1.68$ ,  $p = 0.25$ ).

## B Instructions for *Choice* Treatment

*The following instructions were given both in written and oral form, while in appendix B.1 - B.3 the instructions are presented which were read by each participant. The examples and exercises participants had to solve are presented in appendix B.3.3. These reflect the Choice treatment, with the modifications for the Random treatment summarized at the bottom.*

(Oral) Welcome and thank you for participating in this decision-making experiment. You will be paid privately in cash at the end of the experiment, which will last around half an hour. Research foundations have provided the funds. You will make a few decisions that will affect your payoff and possibly the payoffs of other participants. Other participants will simultaneously be making choices that may affect your payoff. Please pay careful attention to the instructions as a considerable amount of money is at stake. You are guaranteed a minimum payment of \$5, and may earn as much as \$15.

Your participation in this session and any information about your earnings will be kept strictly confidential. Your payment-receipt and consent form are the only places in which your name or perm number are recorded. You will never be asked to reveal your identity to anyone during the course of the experiment. In order to keep decisions private, please do not reveal your choices to any other participant. You will complete one task. Your earnings will be calculated based on your decision and the decision of other subjects, and at the end of the experiment you will be paid that amount plus a \$6 show-up fee. If you have any questions during the experiment, please raise your hand and wait for assistance. Please note

that for each screen, once you click OK you cannot go back to the previous screen. Please make sure you have read and understand everything completely before you move on.

In this experiment, you will be anonymously grouped together with three other people, so that your decision may affect the payoffs of these three, just as the decisions of the other people in your group may affect your payoffs. You will not know the identity of the other people, and the other people will not know your identity. Each group will consist of four kinds of players, one participant A, one participant B, one participant C and one participant D. Decisions will be made sequentially, in alphabetical order. Participant A starts and can decide how to divide 20 dollars between the four participants. Participant A can choose between four options:

- Distribution 1: Participant A and participant B each receive 9 dollars, participant C receives 2 dollars and participant D receives 0 dollars (this is: 9,9,2,0).
- Distribution 2: Participant A and participant B each receive 9 dollars, participant C receives 0 dollars and participant D receives 2 dollars (this is: 9,9,0,2).
- Distribution 3: Each participant receives 5 dollars (this is: 5,5,5,5).

Participant A can choose between these three distributions, or can pass the decision to participant B. Then, participant B can decide among the first two distributions:

- Distribution 1: Participant A and participant B each receive 9 dollars, participant C receives 2 dollars and participant D receives 0 dollars (this is: 9,9,2,0).
- Distribution 2: Participant A and participant B each receive 9 dollars, participant C receives 0 dollars and participant D receives 2 dollars (this is: 9,9,0,2).

If A delegates the decision to participant B, A cannot take any further decision. Once A, or, in case A delegates, B has made a choice about the allocation of the 20 dollars, participant C and participant D are informed about

- if A has delegated the decision or not
- what distribution was chosen.

Then, either participant C or participant D is randomly chosen. This participant has the possibility to deduct dollars from A, B and the other participant (either D or C), at the cost of one dollar. The randomly chosen player can deduct a maximum of 7 dollars, but can also deduct less. The player deducting points cannot deduct more point from a participant than that participant has earned through the chosen allocation.

Next you will be assigned a role. You will get further instructions on paper, which explain how you will make the decisions for your specific role. There are some examples, and seven short exercises designed to verify your understanding of the instructions. After you completed the exercises, please raise your hand. Once everybody has completed the exercises, we will go over them together.

## B.1 Instructions for Player A

You are participant A. Either you or participant B will decide how to divide 20 points between the four participants in your group. Being participant A, you can choose between four options. If you do not pass the decision to participant B, then participant B will not take a decision. You take the decision. If you delegate the decision to participant B, then you cannot take any further decision. Participant B will take the final decision. In the following table we show you again an overview over all distributions between which you (or, in case you delegate, participant B) can choose.

If you have chosen an allocation of the 20 dollars - or, in case you delegated, participant B has chosen an allocation of the 20 dollars, participant C and participant D are informed about

- whether you have delegated the decision or not, and

		Your dollars	Dollars of B	Dollars of C	Dollars of D
You can choose	Distribution 1	9	9	0	2
	Distribution 2	9	9	2	0
	Distribution 3	5	5	5	5
	pass to B				
B can choose	Distribution 1	9	9	0	2
	Distribution 2	9	9	2	0

– what distribution was chosen.

Then, either participant C or participant D is randomly chosen. This participant has the possibility to deduct dollars from you, participant B and the other participant (either D or C), at the cost of one dollar. The randomly chosen player can deduct a maximum of 7 dollars, but can also deduct less. The player can never deduct more dollars than the dollars you earned through the chosen allocation.

### *B.1.1 What will happen on the computer*

Your insert your decision on a screen as the following:

A	B	C	D	Your decision
9	9	0	2	<input type="checkbox"/>
9	9	2	0	<input type="checkbox"/>
5	5	5	5	<input type="checkbox"/>
pass				<input type="checkbox"/>

If you want to choose distribution 1, then you click the top small square on the right side. If you want to choose distribution 2, you click the second square. If you want to choose distribution 3, you click the third square. If you want to delegate the decision to participant B, you click in the last square.

After choosing one distribution, you click on the OK-button on the bottom right. As long as you don't click on this button, you can rethink your choice, and select something else. After you (and / or participant B) and the randomly chosen player C or D have made the decision, the experiment is finished and you get your final payoff paid in cash. To summarize, you only take one decision, which you have to insert in the above screen. Think carefully about your decision. Do you have questions?

## B.2 Instructions for Player B

You are participant B. Either participant A or you will decide how to divide 20 dollars between the four participants in your group. Participant A can choose between three distributions, or can pass the decision to you, participant B. If A passes the decision, you can only decide among two distributions. If A does not pass the decision, then you will not take a decision. If A delegates the decision to you, you will take the final decision. In the following table we show you again an overview over all distributions between which A (or you, in case A delegates) can choose.

- INPUT SAME TABLE AS FOR PLAYER A -

If A has chosen an allocation of the 20 dollars - or, in case A delegated, you have chosen an allocation of the 20 dollars, participant C and participant D are informed about

- whether A has delegated the decision or not, and
- what distribution was chosen.

Then, either participant C or participant D is randomly chosen. This participant has the possibility to deduct dollars from you, participant A and the other participant (either D or C), at the cost of one dollar. The randomly chosen player can deduct a maximum of 7 dollars, but can also deduct less. The player can never deduct more dollars than the dollars you earned through the chosen allocation.

### B.2.1 What will happen on the computer

If participant A delegates the decision between distribution 1 and 2 to you, then you will see the following screen:

A	B	C	D	Your Decision
9	9	0	2	<input type="checkbox"/>
9	9	2	0	<input type="checkbox"/>

**OK**

If you want to choose distribution 1, then you click the top small square on the right side. If you want to choose distribution 2, you click the second square.

After choosing one distribution, you click on the OK-button on the bottom right. As long as you don't click on this button, you can rethink your choice, and select something else. After you (and / or participant A) and the randomly chosen player C or D have made the decision, the experiment is finished and you get the final payoff paid in cash. To summarize, you only take one decision, which you have to insert in the above screen. Think carefully about your decision. Do you have questions?

### B.3 Instructions for Player $R_1$ / $R_2$

You are participant C. Either participant A or participant B will decide how to divide 20 dollars between the four participants. Participant A can choose between three distributions, or can pass the decision to participant B, who then can only decide among two distributions. If A does not pass the decision to participant B, then participant B will not take a decision. A takes the decision. If A delegates the decision to participant B, then participant B will take the final decision. In the following table we show you again an overview over all distributions between which A (or, in case A delegates, participant B) can choose.

- INPUT SAME TABLE AS FOR PLAYER A -

If A has chosen an allocation of the 20 dollars - or, in case A delegated, participant B has chosen an allocation of the 20 dollars, you or participant D are chosen randomly. The participant who is chosen has the possibility to deduct dollars from A, participant B and the other participant (either D or C), at the cost of one dollar. The randomly chosen player can deduct a maximum of 7 dollars, but can also deduct less. The player can never deduct more dollars than the dollars a participant earned through the chosen allocation.

#### B.3.1 Your Decision

Before you get to know which decision participant A and / or participant B has chosen and before you get to know if you or participant D were chosen to deduct dollars, we ask you to make a decision for each of the following five cases:

- Participant A does not delegate the decision and chooses allocation 1 (9,9,0,2)
- Participant A does not delegate the decision and chooses allocation 2 (9,9,2,0)
- Participant A does not delegate the decision and chooses allocation 3 (5,5,5,5)
- Participant A does delegate the decision and participant B chooses allocation 1 (9,9,0,2)
- Participant A does delegate the decision and participant B chooses allocation 2 (9,9,2,0)

In particular, this means that for each of the cases you have to say if you want to deduct dollars, and, if yes, how you want to distribute the deducted dollars on the other players. Participant A and / or participant B take the decision without knowing what you or participant D will do in each of the five cases.

If you are chosen in the random selection process, then your decision is implemented for the case which results out of the decisions of participant A and / or participant B. Therefore, each of your five decisions can be determining for the final payments.

#### B.3.2 What will happen on the computer

Your decision in each of the cases you insert in five screens like the following:

The above example-screen shows you the possibility "Participant A does not delegate the decision and chooses the allocation (5,5,5,5)". The screens for the other four cases look similar - please pay attention for which case you take the decision! If you click on "yes", then the following screen appears (see next page):

After clicking on "yes", you can insert the respective amount you want to deduct in the three boxes. If you choose to deduct a dollar of at least one other player, you will be deducted one dollar - and the player of whom you want to deduct dollars loses the amount you stated in the respective field. If you choose "no" when asked if you want to deduct dollars, then the three small boxes do not appear (or disappear again), and you cannot deduct dollars.

Please make a choice for each possible case.

Now, suppose participant A did not delegate and has chosen the following distribution:

A gets 5  
B gets 5  
C gets 5  
D gets 5

You are player C. Do you want to deduct points?  Yes  
 No

OK

Please make a choice for each possible case.

Now, suppose participant A did not delegate and has chosen the following distribution:

A gets 5  
B gets 5  
C gets 5  
D gets 5

You are player C. Do you want to deduct points?  Yes  
 No

How many points do you want to subtract?

From the income of A

From the income of B

From the income of D

OK

Please make a choice for each possible case.

Now, suppose participant A did not delegate and has chosen the following distribution:

A gets 5  
B gets 5  
C gets 5  
D gets 5

You are player C. Do you want to deduct points?  Yes  
 No

How many points do you want to subtract?

From the income of A

From the income of B

From the income of D

OK

After choosing one distribution, you click on the OK-button on the bottom right. As long as you don't click on this button, you can rethink your choice, and select something else.



In this example participant C wants to deduct dollars. Therefore, C clicked “yes”, and the three small boxes appeared (see the picture on the previous page). Participant C deducts 1 dollar of participant A, 2 dollars of participant B, and 3 dollars of participant D. (This is just an example and not a suggestion of how you should act.) In total you can deduct up to 7 dollars in each case. You can as well (as in the above example) deduct less than seven dollars. Thereby, you cannot deduct more dollars of a participant than what that participant received according to the respective allocation. In the above example, therefore, you cannot deduct of any player more than 5 dollars.

When you press the OK-button, you come to the next case. As long as this button is not pressed, you can still change all your entries. Do you have any questions?

### B.3.3 Examples

The examples and the exercises are the ones that were presented to player D. For  $I$ ,  $R_1$  and  $R_2$ , they were modified respectively.

- Example 1: Distribution 2 is chosen (either by yourself or by participant B) and the randomly chosen participant is participant C. C choses to give up one dollar, to deduct 3 dollars from you and 4 dollars from participant B. Then, the following distribution results:

	Your dollars	Dollars of B	Dollars of C	Dollars of D
Distribution 2	$9-3 = 6$	$9-4 = 5$	$2 - 1 = 1$	0

- Example 2: Distribution 3 is chosen (by yourself) and the randomly chosen participant is participant D. D choses to give up one dollar, to deduct two dollars from you, three dollars from participant B and one dollar of participant C. D choses to not to use the seventh possible dollar to deduct. Then, the following distribution results:

	Your dollars	Dollars of B	Dollars of C	Dollars of D
Distribution 3	$5-2 = 3$	$5-3 = 2$	$5-1 = 4$	$5-1 = 4$

- Example 3: Distribution 2 is chosen (either by yourself or by participant B) and the randomly chosen participant is participant D. D choses to not to give up one dollar, to deduct dollars from other players. Therefore, the resulting distribution is as explained above, (9,9,2,0).
- Example 4: Distribution 1 is chosen (by yourself or by participant B) and the randomly chosen participant is participant C. C choses to give up one dollar, to deduct two dollars from you, two dollars from participant B and two dollars of participant D. C choses to not to use the seventh possible dollar to deduct. Then, the following distribution results:

	Your dollars	Dollars of B	Dollars of C	Dollars of D
Distribution 1	$9-2 = 7$	$9-2 = 7$	$0-1 = -1$	$2-2 = 0$

### B.3.4 Exercises Each Participant Had to Solve

Please answer the following questions. They only serve for helping you to get used to the experiment. The decisions and payments in the exercise here are chosen arbitrarily. Do not

take them as suggestions for which allocation you should chose. Your answers here will not have any impact on the payments at the end of the experiment.

- Participant A has passed the decision to participant B. Whose decisions are relevant for the payments at the end of the experiment?
- Participant A did not pass the decision to participant B. Whose decisions are relevant for the payments at the end of the experiment?
- Distribution 2 is chosen. Participant C is randomly selected to deduct dollars, and wants to deduct the following bold printed amounts:

	Your dollars	Dollars of B	Dollars of C	Dollars of D
Distribution 2	9	9	2	0
Deduction	<b>2</b>	<b>2</b>		<b>0</b>

Is this possible? If yes, please determine the resulting payment. If not, please make a mark where it is not possible.

- Distribution 2 is chosen. Participant D is randomly selected to deduct dollars, and wants to deduct the following bold printed amounts:

	Your dollars	Dollars of B	Dollars of C	Dollars of D
Distribution 2	9	9	2	0
Deduction	<b>2</b>	<b>1</b>	<b>3</b>	

Is this possible? If yes, please determine the resulting payment. If not, please make a mark where it is not possible.

- Distribution 3 is chosen. Participant C is randomly selected to deduct dollars, and wants to deduct the following bold printed amounts:

	Your dollars	Dollars of B	Dollars of C	Dollars of D
Distribution 3	5	5	5	5
Deduction	<b>2</b>	<b>3</b>		<b>3</b>

Is this possible? If yes, please determine the resulting payment. If not, please make a mark where it is not possible.

- Distribution 3 is chosen. Participant D is randomly selected to deduct dollars, and wants to deduct the following bold printed amounts:

	Your dollars	Dollars of B	Dollars of C	Dollars of D
Distribution 3	5	5	5	5
Deduction	<b>7</b>	<b>0</b>	<b>0</b>	

Is this possible? If yes, please determine the resulting payment. If not, please make a mark where it is not possible.

- Distribution 1 is chosen. Participant D is randomly selected to deduct dollars, and wants to deduct the following bold printed amounts: Is this possible? If yes, please determine the resulting payment. If not, please make a mark where it is not possible.

Please remember that these are only exercises, and that all numbers were chosen arbitrarily. You should not use the numbers to orient your decision on them. When you have solved the exercises, please raise your hand. You may think about your decision in the experiment.

	Your dollars	Dollars of B	Dollars of C	Dollars of D
Distribution 1	9	9	0	2
Deduction	<b>0</b>	<b>0</b>	<b>0</b>	

#### B.4 Instructions for *Random* treatment

This treatment included the following modifications:

1. After displaying the available options for the dictator, we changed the text for all participants to the following:

Participant A can choose between these three distributions, or can pass the decision to participant B. If A passes, participant B must click a button. When B clicks the button, the computer randomly selects either distribution 1 or 2. While each of these two distributions is equally likely, distribution 3 is never selected. If A passes the decision to participant B, A does not make any further decisions. Once A, or, in case A passes, the computer has selected how to distribute the 20 dollars, participant C and participant D are informed about

- if A has delegated the decision or not
- which distribution was chosen.

Then, either participant C or participant D is randomly selected to have the opportunity to deduct dollars from A, B and the other participant (either D or C). Whichever person is chosen can deduct up to 7 dollars in any combination from the other participants. If that person does not make any deductions from any other participants, his or her earnings will be unaffected. However, it will cost her \$1 if she does deduct anything from anyone. Note that even if this person obtained \$0 from the chosen distribution, even if she pays the \$1 to deduct money from others, she will still have positive earnings from the session because of the \$6 show-up fee. The player deducting dollars cannot deduct more dollars from a participant than that participant has earned through the chosen allocation.

2. Similarly, the first part of the instructions of player A was changed to the following:  
You are participant A. Either you or participant B will decide how to divide 20 points between the four participants in your group. Being participant A, you can choose between four options. If you do not pass the decision to participant B, then participant B will not take a decision. You take the decision. If you delegate the decision to participant B, then you cannot take any further decision. By clicking on a button, Participant B will take the final decision: the computer will implement the final choice between distribution 1 and distribution 2. In the following table we show you again an overview over all distributions between which you (or, in case you delegate, participant B through his random choice) can choose.
3. The tables shown to the players were changed to the following:

		Your dollars	Dollars of B	Dollars of C	Dollars of D
You can choose	Distribution 1	9	9	0	2
	Distribution 2	9	9	2	0
	Distribution 3	5	5	5	5
	pass to B				
B clicks on a button, and the computer decides which of the two distributions to implement:	Distribution 1	9	9	0	2
	Distribution 2	9	9	2	0

4. The first part of the instructions of player B was changed to the following:  
You are participant B. Either participant A or your click will decide how to divide 20 dollars between the four participants in your group. Participant A can choose between three distributions, or can pass the decision to you, participant B. If A passes the decision, you have to click on a button, and through this click it is randomly determined

which of two distributions is implemented. If A does not pass the decision, then you will not take a decision. If A delegates the decision to you, your click will implement the final allocation. In the following table we show you again an overview over all distributions between which A (or you, in case A delegates) can choose.

5. The first part of the instructions of player C was changed to the following:

You are participant C. Either participant A or your click will decide how to divide 20 dollars between the four participants in your group. Participant A can choose between three distributions, or can pass the decision to participant B. If A passes the decision, B has to click on a button, and through this click it is randomly determined which of two distributions is implemented. If A does not pass the decision, then B will not take a decision. If A delegates the decision to B, B's click will implement the final allocation. If A does not pass the decision to participant B, then participant B will not take a decision. A takes the decision.

Further small changes were made to adapt all instructions to the new setting. Full instructions are available from the authors.