

Appendix

A Probit regressions for the p-values in Figures 1 and 2

Condition	Pr(Allocating to the lower rank in choice set)			
	Full sample			
	<i>RR</i>	<i>NoRR</i>	<i>NoRRfixed</i>	<i>RRfixed</i>
1.Rank	0.00949 (0.120) [0.937]	0.198 (0.149) [0.184]	-0.00412 (0.197) [0.983]	0.0170 (0.186) [0.927]
2.Rank	-0.0280 (0.117) [0.811]	0.0941 (0.162) [0.562]	-0.0367 (0.191) [0.847]	0.539*** (0.208) [0.009]
3.Rank	0.0483 (0.0967) [0.618]	-0.0379 (0.129) [0.769]	0.188 (0.176) [0.286]	0.185 (0.205) [0.367]
4.Rank	0.163 (0.128) [0.201]	-0.0625 (0.142) [0.661]	0.432** (0.216) [0.046]	0.180 (0.206) [0.382]
5.Rank				
6.Rank	-0.0372 (0.113) [0.741]	-0.178 (0.143) [0.214]	-0.0205 (0.189) [0.914]	≈ 0 (0.203) [≈ 1.000]
Constant	0.906*** (0.0997)	0.928*** (0.150)	0.581*** (0.135)	0.390*** (0.141)
Observations	2,400	1,800	4,320	3,840

Robust standard errors, clustered at subject level, in parentheses
P-values in square brackets
*** p<0.01, ** p<0.05, * p<0.1

Table A1 Probit regression of subjects' choice to allocate money to the lower rank in their choice set on the subjects' rank in the income distribution. Rank 5 is set as baseline. Standard errors are clustered at subject level. No further covariates are included.

B Additional regressions

B.1 Probit regressions, sample restricted to the first ten periods

Condition	Pr(Allocating to the lower rank in choice set)			
	Periods 1 to 10			
	<i>RR</i>	<i>NoRR</i>	<i>NoRRfixed</i>	<i>RRfixed</i>
1.Rank	0.168 (0.165)	0.110 (0.202)	0.0338 (0.201)	0.0174 (0.183)
2.Rank	-0.0567 (0.175)	0.234 (0.173)	0.0860 (0.197)	0.667*** (0.207)
3.Rank	0.0196 (0.147)	-0.0754 (0.176)	0.177 (0.175)	0.153 (0.212)
4.Rank	0.168 (0.190)	0.0812 (0.192)	0.531** (0.222)	0.172 (0.206)
<u>5.Rank</u>				
6.Rank	-0.162 (0.152)	-0.0508 (0.188)	0.0424 (0.189)	0.0174 (0.208)
Constant	0.935*** (0.133)	0.941*** (0.163)	0.606*** (0.139)	0.454*** (0.141)
Observations	1,200	900	2,160	1,920

Robust standard errors, clustered at subject level, in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table B1 Restricted sample Probit regression (first 10 Periods) of subjects' choice to allocate money to the lower rank in their choice set on the subjects' rank in the income distribution. Rank 5 is set as baseline. Standard errors are clustered at subject level. No further covariates are included.

B.2 Comparison of ranks across conditions *RRfixed* and *NoRRfixed*

VARIABLES	Pr(Allocating to the lower rank in choice set)
<i>NoRRfixed</i> × 1.Rank	-0.00412 (0.197)
<i>NoRRfixed</i> × 2.Rank	-0.0367 (0.190)
<i>NoRRfixed</i> × 3.Rank	0.188 (0.176)
<i>NoRRfixed</i> × 4.Rank	0.432** (0.216)
<i>NoRRfixed</i> × 5.Rank	
<i>NoRRfixed</i> × 6.Rank	-0.0205 (0.189)
<i>RRfixed</i> × 1.Rank	-0.175 (0.181)
<i>RRfixed</i> × 2.Rank	0.347* (0.203)
<i>RRfixed</i> × 3.Rank	-0.00669 (0.201)
<i>RRfixed</i> × 4.Rank	-0.0113 (0.202)
<i>RRfixed</i> × 5.Rank	-0.192 (0.195)
<i>RRfixed</i> × 6.Rank	-0.192 (0.198)
Constant	0.581*** (0.135)
Observations	8,160

Coefficient comparisons

$H_0 : \text{NoRRfixed} \times 5.\text{Rank} = \text{RRfixed} \times 5.\text{Rank}$, p-value=0.325

$H_0 : \text{NoRRfixed} \times 4.\text{Rank} = \text{RRfixed} \times 4.\text{Rank}$, p-value=0.050 (*)

$H_0 : \text{NoRRfixed} \times 3.\text{Rank} = \text{RRfixed} \times 3.\text{Rank}$, p-value=0.297

$H_0 : \text{NoRRfixed} \times 2.\text{Rank} = \text{RRfixed} \times 2.\text{Rank}$, p-value=0.058 (*)

$H_0 : \text{NoRRfixed} \times 5.\text{Rank} = \text{RRfixed} \times 4.\text{Rank}$, p-value=0.955

$H_0 : \text{NoRRfixed} \times 5.\text{Rank} = \text{RRfixed} \times 3.\text{Rank}$, p-value=0.973

Robust standard errors, clustered at subject level, in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table B2 Probit regression of subjects' choice to allocate money to the lower rank in their choice set on condition × rank indicators. Rank 5 in condition *NoRRfixed* is set as baseline. Standard errors are clustered at subject level. No further covariates are included.

B.3 Probits with additional covariates

VARIABLES	Condition <i>NoRR</i>			
	Pr(Allocating to the lower rank in choice set)			
1.Rank	0.198 (0.149)	0.197 (0.150)	0.198 (0.146)	0.219 (0.145)
2.Rank	0.0941 (0.162)	0.0943 (0.162)	0.0940 (0.162)	0.113 (0.162)
3.Rank	-0.0379 (0.129)	-0.0383 (0.129)	-0.0387 (0.129)	-0.0302 (0.132)
4.Rank	-0.0625 (0.142)	-0.0618 (0.143)	-0.0615 (0.142)	-0.0347 (0.135)
6.Rank	-0.178 (0.143)	-0.178 (0.144)	-0.177 (0.143)	-0.161 (0.145)
Period		-0.00694 (0.00595)	-0.00693 (0.00595)	-0.00712 (0.00596)
Female			0.0166 (0.234)	-0.0140 (0.235)
Age				-0.0174 (0.0132)
Constant	0.928*** (0.150)	1.002*** (0.151)	0.994*** (0.167)	1.469*** (0.406)
Observations	1,800	1,800	1,800	1,800

Robust standard errors, clustered at subject level, in parentheses
 *** p<0.01, ** p<0.05, * p<0.1

Table B3 Probit regressions of subjects' choice to allocate money to the lower rank in their choice set on subjects' rank and added covariates: Period, subjects' gender and subjects' age. Standard errors are clustered at subject level.

VARIABLES	Condition <i>RR</i>			
	Pr(Allocating to the lower rank in choice set)			
1.Rank	0.00949 (0.120)	0.0106 (0.120)	0.0164 (0.121)	0.00246 (0.124)
2.Rank	-0.0280 (0.117)	-0.0276 (0.117)	-0.0150 (0.116)	-0.00326 (0.122)
3.Rank	0.0483 (0.0967)	0.0480 (0.0970)	0.0589 (0.0954)	0.0643 (0.0976)
4.Rank	0.163 (0.128)	0.164 (0.128)	0.177 (0.126)	0.190 (0.127)
6.Rank	-0.0372 (0.113)	-0.0378 (0.112)	-0.0210 (0.109)	0.0106 (0.107)
Period		-0.00568 (0.00664)	-0.00582 (0.00659)	-0.00607 (0.00684)
Female			0.212 (0.167)	0.0873 (0.169)
Age				-0.0250*** (0.00770)
Constant	0.906*** (0.0997)	0.966*** (0.116)	0.835*** (0.149)	1.585*** (0.296)
Observations	2,400	2,400	2,400	2,400

Robust standard errors, clustered at subject level, in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table B4 Probit regressions of subjects' choice to allocate money to the lower rank in their choice set on subjects' rank and added covariates: Period, subjects' gender and subjects' age. Standard errors are clustered at subject level.

VARIABLES	Condition <i>NoRRfixed</i>			
	Pr(Allocating to the lower rank in choice set)			
1.Rank	-0.00412 (0.197)	-0.00370 (0.198)	0.00225 (0.197)	0.00425 (0.195)
2.Rank	-0.0367 (0.191)	-0.0352 (0.191)	-0.00909 (0.193)	-0.00872 (0.193)
3.Rank	0.188 (0.176)	0.188 (0.176)	0.172 (0.177)	0.176 (0.181)
4.Rank	0.432** (0.216)	0.435** (0.217)	0.428** (0.216)	0.431** (0.216)
6.Rank	-0.0205 (0.189)	-0.0202 (0.190)	-0.00359 (0.188)	-0.00176 (0.189)
Period		-0.0154*** (0.00373)	-0.0155*** (0.00375)	-0.0155*** (0.00375)
Female			0.190* (0.115)	0.193* (0.114)
Age				-0.00107 (0.00913)
Constant	0.581*** (0.135)	0.745*** (0.141)	0.637*** (0.158)	0.660** (0.258)
Observations	4,320	4,320	4,320	4,320

Robust standard errors, clustered at subject level, in parentheses
 *** p<0.01, ** p<0.05, * p<0.1

Table B5 Probit regression with added covariates: Period, subjects' gender and subjects' age.

VARIABLES	Condition <i>RRfixed</i>			
	Pr(Allocating to the lower rank in choice set)			
1.Rank	0.0170 (0.186)	0.0169 (0.186)	0.0162 (0.186)	0.0290 (0.183)
2.Rank	0.539*** (0.208)	0.542*** (0.208)	0.491** (0.209)	0.523** (0.209)
3.Rank	0.185 (0.205)	0.185 (0.206)	0.209 (0.205)	0.198 (0.205)
4.Rank	0.180 (0.206)	0.181 (0.207)	0.162 (0.205)	0.161 (0.206)
6.Rank	≈ 0 (0.203)	0.000242 (0.203)	-0.00496 (0.200)	-0.00964 (0.202)
Period		-0.0150*** (0.00403)	-0.0152*** (0.00405)	-0.0152*** (0.00407)
Female			0.222* (0.116)	0.244** (0.115)
Age				-0.00997 (0.00913)
Constant	0.390*** (0.141)	0.549*** (0.146)	0.449*** (0.161)	0.678** (0.273)
Observations	3,840	3,840	3,840	3,840

Robust standard errors, clustered at subject level, in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table B6 Probit regressions of subjects' choice to allocate money to the lower rank in their choice set on subjects' rank and added covariates: Period, subjects' gender and subjects' age. Standard errors are clustered at subject level.

C Last Place Aversion and Rank Reversal Aversion

C.1 Last Place Aversion

KBRN define Last Place Aversion as follows:³¹

Suppose there are N individuals with distinct income levels $y_1 < y_2 < \dots < y_n$. An individual i whose relative position in the income distribution is denoted q_i derives utility

$$U(y_i, q_i) = \gamma g(q_i) + (1 - \gamma)f(y_i), \quad (1)$$

where $f(\cdot)$ is pure (monetary) utility from income y_i , $\gamma \in (0, 1)$ and relative position q_i is defined as the number of individuals in the income distribution with income lower than or equal to y_i .³² With last place aversion,

$$g(q_i) = \mathbf{1}(q_i > 1) = \mathbf{1}(y_i > y_1) \quad (2)$$

such that individuals get an extra utility boost whenever they are not in last place (i.e. their relative position is greater than 1 and thus their income is

³¹Notation modified to be in accordance with our own.

³²And as rank is defined as "one plus the number of individuals with income higher than y_i ", the relationship between relative position q_i and rank r_i is simply $r_i = N + 1 - q_i$.

larger than the lowest income y_1). (If people exhibit a more general form of rank preferences such as a dislike for low ranks [not exclusively the last rank] then $g(\cdot)$ would be a concave function that increases steeply at the bottom of the income distribution and then quickly flattens out.)

KBRN define last place aversion only for income distributions in which all incomes are distinct. In order to account for the fact that ranks can be shared, we can do two things. First we can simply define relative position q_i as “1 plus the number of individuals with income strictly lower than y_i ” and otherwise keep the exact theoretical formalization of KBRN. This would require the assumption that the disutility from occupying the last place doesn’t depend on how many people share the last place (because irrespective of how many people share the last rank, their relative position will always be 1 and thus their (dis)utility will not vary with the number of people sharing their rank). Alternatively, we can assume that the disutility of being in last place is lower if the last rank is shared (and potentially decreasing with the number of fellow last-place-occupants) and define $g(\cdot)$ as $g(q_i) = 1$ if $q_i \neq 1$ and $g(q_i) = h(n)$ if $q_i = 1$ and n people share the last rank, where $h(\cdot)$ is an increasing function in n , equal to 0 if $n = 1$ (and thus i is alone in last place) and strictly smaller than 1 for finite n .

We do not want to take a stance on which of these two theoretical models of last place aversion is more appropriate (though this would be an interesting topic for future research). What matters for our experimental design is that in both theoretical models - that is, irrespective of whether or not the disutility of being in last place varies with the number of fellow occupants of this rank - there would always be a discontinuous jump in $g(\cdot)$ when occupying the last place compared to any other rank.

Finally, note that we can of course also define the second term of people’s utility in a broader way and account for other distributive preferences such as inequity aversion by defining $f(\cdot)$ as a function not only of own income but of the whole ranking R (see also Section D.2).

C.2 Rank Reversal Aversion

Defining rank reversal aversion is more elaborate, because it implies that people’s utility from a given allocation depends not only on the current ranking but also on some past ranking compared to which ranks were or were not reversed (some reference distribution or ranking).

As conceived by Xie et al. (2017), rank reversal aversion means that people (dictators, i.e. outsiders who are not part of the ranking themselves) suffer from a utility loss by reversing ranks in a given distribution. Hence, whenever choosing between different allocations, rank reversal aversion might make them prefer allocations preserving the original relative ranking even at the expense of equality or efficiency.

We take the Xie et al. (2017) concept of rank reversal aversion one step further and apply it to situations in which the person experiencing (dis-)utility

(or the decision maker altering the ranking) is part of the ranking herself. As conceived by us, rank reversal aversion implies people being averse to their own ranking in a distribution being disadvantageously swapped with that of a lower ranked person. Formally, individual i 's utility from a certain ranking R' , given their "reference ranking" R (which in our case is the initial "status quo" ranking), is defined as

$$U(R', R) = \gamma u(R') + (1 - \gamma)v(R', R) \quad (3)$$

where $\gamma \in (0, 1)$, $u(R')$ is the utility derived from the new ranking (incorporating utility from one's own income as well as potential utility from the shape of the ranking, and thus e.g. accounting for inequity aversion or other positional preferences) and $v(R, R')$ is negative if $r'_i > r_i$ (and zero or potentially positive if $r'_i \leq r_i$). If rank reversal aversion is independent of a subject's initial rank (and of the difference between r'_i and r_i), then v is just a step function taking a constant negative value if $r'_i > r_i$ and zero (or a constant positive value) if $r'_i \leq r_i$. If rank reversal aversion is rank dependent (i.e. it hurts more to lose your rank the lower your final position) then its absolute value is increasing in r'_i .

D Theoretical predictions

D.1 Last place and rank reversal aversion

As KBRN describe, there is strong empirical support for subjects generally favouring people with less money in their allocation decisions, and most theoretical models about distributional or fairness preferences (Fehr and Schmidt (1999), Charness and Rabin (2002), Bolton and Ockenfels (2000)) would predict that a high proportion of downward allocations should be observed in our experimental setup, irrespective of the allocator's own position (see also Appendix D.2). In this section we want to illustrate the predictions of last place and rank reversal aversion for our *NoRR* and *RR* frameworks.

Assume six players are ranked in terms of their monetary endowments y_i in the same way as they are in our experimental implementation of the games. If subjects exhibit pure last place aversion as defined in Appendix C.1, then people in fifth rank suffer from a utility loss by allocating (both 2 and 4 Euros) downwards, because this ends them up in last rank. Last place aversion alone does not imply anything for the choices of people in other ranks. Assuming that their behaviour reflects their general distributional preferences, among which, as argued above, the vast majority would predict that people prefer to allocate downwards, we would expect to see a high proportion of downwards allocations across all ranks, but less so among subjects in rank 5, for whom last place aversion strikes.

If subjects exhibit rank reversal aversion, everybody (not only people in rank 5) would see their utility from allocating downwards (and thus having their ranks reversed disadvantageously) decrease in the RR conditions. We

would thus expect to see less downward allocations across all ranks (compared to the NoRR conditions), with the probability of downward allocations potentially decreasing towards the bottom of the distribution (if rank reversal aversion is rank dependent).

D.2 Inequity aversion

In this section we want to examine the predictions of inequity aversion for the *NoRR* and *RR* frameworks. Assume again that six players are ranked in terms of their monetary endowments y_i in the same way as they are in our experimental implementation of the games. Assume agents are inequity averse as in Fehr and Schmidt (1999), with a utility function represented by:

$$U_i(y) = y_i - \frac{\alpha_i}{n-1} \left(\sum_{j \neq i} \max \{y_j - y_i; 0\} \right) - \frac{\beta_i}{n-1} \left(\sum_{j \neq i} \max \{y_i - y_j; 0\} \right), \quad (4)$$

where α_i and β_i are preference parameters describing player i 's sensitivity to disadvantageous and advantageous inequality respectively, satisfying $0 \leq \beta_i \leq \alpha_i$. Plugging the numbers from Table 2 into equation (4) yields a greater utility from allocations to the person below both for allocations of 4 (*RR*) and of 2 Euros (*NoRR*) for any i occupying any rank excluding the first and last.³³ Hence, according to inequity aversion, in both *RR* and *NoRR* sessions we should observe all subjects ranked 2 to 5 always allocating the extra money to the person ranked immediately below them.

D.3 Reciprocity and fairness

Reciprocal preferences do not yield a unique behavioural prediction in our settings. According to the theory of reciprocity developed by Falk and Fischbacher (2006), reciprocity is “*a behavioral response to perceived kindness and unkindness, where kindness comprises both distributional fairness as well as fairness intentions*”. The theory is formulated for two-player games but can be extended to multi-player games, where the degree of desired reciprocity towards different players (the *reciprocity parameter*) can vary.

In our setting, people are asked to decide who between two other players gets a fixed amount of money (2 or 4 Euros). The decision maker herself does not gain or lose anything from this decision, because the money she allocates is given to her in addition and is not part of her own endowment. People do not

³³The utility consequences of adding weight to the income distribution as with the choices i faces in the *NoRR* and *RR* conditions are independent of i 's position in the income distribution, except for the person ranked first and last. The person ranked last is indifferent in both cases and the person in first rank is indifferent in the *NoRR* case and strictly prefers giving to the person in third rank in the *RR* case.

get any feedback about how other players in their group decided in previous rounds, and more importantly groups are randomly rematched every period. Each round should hence be treated by the subjects as an independent one-shot game. It is thus not at all clear whether people should be “kind” towards the person above or below themselves when deciding on the allocation of money, as there is no “act of kindness” (whether intentional or unintentional) of other players towards them that they could consider in their decision making process.

One possibility is that people *believe* that others will give *them* the extra money in their own decision and want to reciprocate accordingly. For instance, a person in 4th rank might believe that the person above her will always decide to give the money to her. Consequently, the person in rank 4 will want to reciprocate and in turn decide to give the money to the person ranked higher than her (which would then make that person’s decision to pass the money down a best reply, and both persons’ beliefs consistent). Clearly, such beliefs about other people’s actions could be used to rationalize all kinds of observed behaviour as being best replies to (potentially wrong) beliefs about what other people will do in their decisions. However, note that since subjects do not get feedback about other people’s actions until the very end of the experiment, we do not provide any anchors for such beliefs. We therefore have no indication of the direction in which such beliefs will emerge, unless they are consistent with equilibrium behaviour.

In our setup (given the limited action set of every player, namely to give money to either the person above or the person below oneself in the ranking), the only equilibrium with reciprocal preferences would be a situation where people with even ranks always give money to the person ranked lower than themselves (and expect those people to allocate the money to them) and people with odd ranks always allocate money to the person above themselves (and expect those people to give the money to the lower-ranked person). Then everybody’s action would be a best reply to the beliefs about what the others will do, and all beliefs would be consistent. This would imply that the resulting probabilities of allocating money to the lower ranked person would follow a zig-zag path, with very high probabilities for ranks 2, 4 and 6, and very low probabilities for ranks 1, 3 and 5. We don’t observe such a pattern in any of the conditions (see Figures 1 and 2). A similar argument applies to other theories about reciprocity, such as Bolton and Ockenfels (2000) and Rabin (1993)’s fairness equilibrium.

D.4 Social norms in *NoRR* and *RR*

In our setup, most commonly cited social norms (helping the poor, giving to people who need it most, etc.) would predict that people, irrespective of their rank, give to the lower ranked person in all our conditions. Note that we do observe that a majority of people follow this behaviour, however, the

probabilities of doing so vary across ranks and conditions. Social norms are not useful for explaining these variations.

E Parts 2 and 3

The second section consisted of an additional set of 15 repetitions of the same conditions played in the first section, but allowing subjects to make both an unconditional allocation (identical to the one made in the first section) and a conditional one. The conditional choice consisted of one allocation for each of the following three cases: when the endowment of the next-in-rank is unchanged, when it is *increased* by one unit, and when it is *decreased* by one unit, determined randomly. In such scenario, last place aversion should play no role in conditions *NoRR* and *NoRRfixed* when the next-in-rank's endowment is *decreased* by one unit. Downwards allocations would in fact leave ranks unchanged. On the contrary, last place aversion should bite when the next-in-rank's endowment is unchanged, even more so when it is increased.³⁴ Different is instead the case for conditions *RR* and *RRfixed*. In these conditions, any positive or negative unit random change in the endowment of the next lower ranked individual is inconsequential, as ranks would in any case be reversed by downwards allocations.³⁵ We incentivised behaviour in this second section in a similar way as we incentivised the first (main) section of the experiment, only that either the unconditional or the "conditional" allocation would be randomly selected for payment, and only one, randomly selected, conditional choice in the latter case.

The third section of the experiment consisted of the elicitation of subjects' basic measures of Social Value Orientation (Murphy et al., 2011).

In the remainder of this appendix we analyse behaviours in the conditional choices in Part 2. We cannot exclude demand effects arising from the subjects being asked to condition on the size of the next in rank's endowment, nor can we exclude spillovers from the first Part. Nonetheless, while refraining from drawing inference based on them, we felt the conditional choices would provide additional evidence for the investigated mechanisms and chose to implement them as incentivised post-experimental data.

Figure 3 displays the proportion of subjects allocating to the lowest ranked person in their choice set for each of her possible endowment sizes: increased or decreased by one unit, or unchanged. Based on the above discussion, we expect subjects in *NoRR* and in *NoRRfixed* to allocate downwards less frequently when the endowment size of the next in rank is increased. In this case, allocating 2 Euros to the next in rank would make this person leapfrog the allocator in the distribution (when the endowment of the next in rank is

³⁴In fact, ranks would be reversed in the latter case.

³⁵A larger random change in the next-in-rank's endowment, say by two or more units, would already cause rank reversals with the neighbouring subjects. Because we feared such design feature would introduce noise and mechanisms we could not account for, we decided to fix the size of the random changes to unity.

increased by 1 unit the distance between the two ranks shrinks to 1 Euro). Behaviours in Part 2 are consistent with this hypothesis. Proportions tests reject the null of equality at least at the 5% significance level for ranks two to five in *NoRR* and in *NoRRfixed* when the endowment of the next in rank is increased compared to when it is not.

We refrain from making inference from conditions *RR* and *RRfixed*. Here, the random change in the next in rank's endowment is in fact inconsequential. The amount subjects allocate is large enough to always cause the subjects to be leapfrogged should they decide to allocate downwards. The picture from the *RR* and *RRfixed* conditions in 3 is in fact much less clear cut. We did not want to increase the size of the variation in the next in rank's endowment as it would have by itself induced rank reversals with consequent effects we could not control for, thus limiting in any case the informativeness of the data.

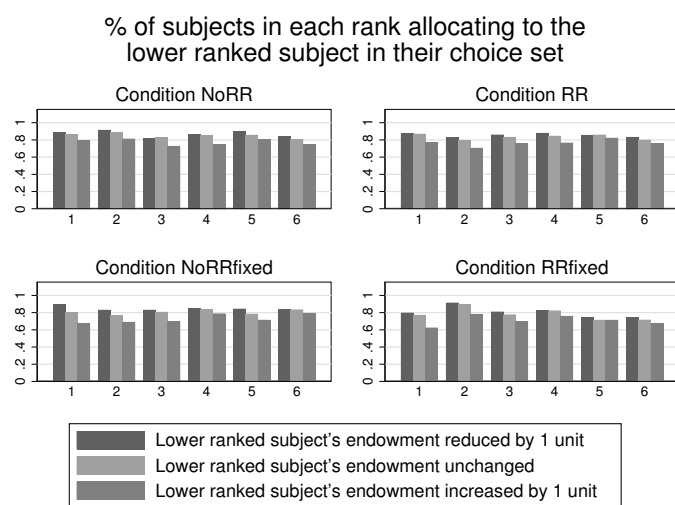


Fig. 3 Proportion of subjects allocating to the lowest ranked person in their choice set for each of her possible endowment size.

F Experimental instructions

Instructions

We sincerely welcome you to this experiment. Please read the instructions carefully. They are the same for all participants. Each one of you is asked to make decisions on the computer.

At the end of the study, you will be paid in cash according to your decisions and the decisions of the other participants. In addition, you will receive 6 euros for arriving on time.

Throughout the study, you are prohibited to communicate with other participants. You are prohibited to use a mobile phone or start other programs on the computer. Unfortunately, if you violate these rules, we have to exclude you from the study. You will only receive the show-up fee.

If you have a question before the start of the experiment, please raise your hand. If the study is already in progress, please press the help key. A lab employee will come to your booth and answer your question quietly.

This study has three parts.

This instruction covers the first part. The instructions for the second part will be distributed after the first part has been completed. Those for the third part will be handed out after the second part has been completed.

Your choices in each part of the study do not affect your decisions and payout in the other parts.

All of your choices will be stored with an anonymous identification number. Your choices therefore cannot be traced back to you by anyone under any circumstance.

First Part

In this study you are in a group with 5 other participants. In each Part of this study you will participate in several rounds.

-----Reassigned ranks conditions-----

At the beginning of each round, the computer will randomly hold a lottery and give you and the other players in your group different amounts of money.

-----Fixed ranks conditions-----

At the beginning of the first round, the computer will randomly hold a lottery and give you and the other participants one of six different amounts of money. This will be your amount for the rest of the study. Group are formed with participants with different amounts.

During each round, you will be presented with a choice about who in your group should get more money. This additional money is drawn from a separate pool and does not take away from the amount of money you have. The choices you make are private, and will not be shown to anyone playing the game at any time.

Once everyone in your group has made a choice, the computer will randomly select one the choice of one participant in your group and award the additional money as that player decided. At that point, everyone's moneybag will be updated, but you will not be shown the final moneybags from the round.

-----Reassigned ranks conditions-----

Then, at the end of each round the groups are broken up, new ones for the next round will be randomly formed, a new lottery will be held and the next round will automatically begin.

-----Fixed ranks conditions-----

Then, at the end of each round the groups are broken up, new ones for the next round will be randomly formed and the next round will automatically begin.

At the end of the session, the computer will automatically select one round from either the First or the Second Part of the Study. Every player will receive their final score from that round. With that in mind, you should play the whole game as if each of your choices is the one determining final payments.

Please raise your hand if you have any questions.

Second Part

In the Second Part the exact amount of money in a certain player's moneybag, replaced by an "X", is unknown. All that is known is that it can be any of the amounts that will be displayed in the box next to it, with equal chance.

In each round, you will be asked to make two choices.

Choice A: is identical to the choices you've made in each round in the First Part.

Choice B: you make the same choice you've made so far but once for every possible amount that the person with the unknown amount might have.

As said before, one round either from the First or the Second Part will be randomly selected to be valid for final payments, and one person in every group in that round. That person's choice, either Choice A or B, will be randomly selected to determine the final scores from the round for everyone in the group. As soon as this player is determined, the person with the unknown amount will also be determined and that person's actual amount will be randomly determined. If Choice B is then selected to be valid, the valid choice is the one corresponding to the actual amount in the unknown moneybag in that period. With that in mind, you should play the whole game as if each of your choices is the one determining final payments.

Notice that you could be the person whose money bag is unknown for someone else. So if the amount in your moneybag differs from the original amount, it is because you were the person with an unknown amount for the person selected.

Please raise your hand if you have any questions.

Third Part

In the Third Part you will make a series of choices among several alternative allocations of Points. The Points will be converted into Euros at a rate of **1 Point=0.08 Euros**.

You will be randomly paired with another person, whom we will refer to as the **other**. You will not know who the other person is, nor will the other person be informed about your identity. You will be making a series of decisions about allocating resources between you and this other person. For each of the questions, please indicate the distribution you prefer most by selecting the corresponding button in the middle row. You can only make one choice for each question. Your decisions will yield money for both yourself and the other person.

Diagram 1: Example of an allocation choice

In the example below, a person chose to the allocation giving 50 Points to herself, and 40 points to the unknown other person.

You receive	30	35	40	45	50	55	60	65	70
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other receives	80	70	60	50	40	30	20	10	0

In terms of Euros, this yields an allocation of $50+0.08=4$ Euros for the person making the choice, and of $40*0.08=3.2$ Euros for the unknown other.

There are no right or wrong answers, this is all about personal preferences.

As you can see, your choices influence both the number of Points you receive, as well as the number of Points the other person receives.

After you have made all your choices, the software will randomly assign one person from your group (you or the other) the role of "Receiver" and the other the role of the "Sender". One of the allocation choices made by the Sender will be **randomly selected by the software**. This allocation will be paid in cash to both the Sender and the Receiver.

If you have any questions, please raise your hand

NB: Please return all materials at the end of the experiment!