

## Distributional Decision-Making of Disadvantaged Individuals – A Proposal for an Experimental Extension

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### 1. Introduction

Societal structures play a crucial role when evaluating distributional outcomes. While social stratification may be more or less pronounced, most societies show some form of it. Being in a so-called “lower” social class often comes with economic uncertainty and is closely associated with a low household income (Western et al., 2012). The question is, if a redistribution scheme is chosen ex-ante via a social contract, or, redistributive measures are taken ex-post, how does the societal position play a role in this choice?

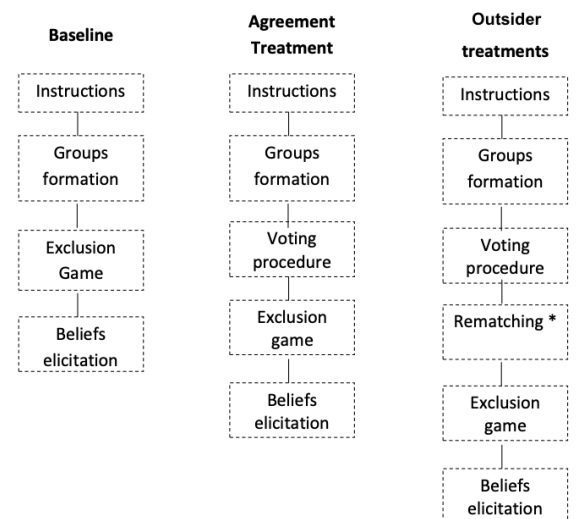
As an outcome of the FRIBIS summer school 2023 on “Empirical methods of UBI investigations - Part II: The Social Contract: A Behavioral Economics Approach with Lab Experiments” we present here our extension for the experiment conducted by Faillo et al. (2015). The original experiment is based on contract theory in line with the tradition of Rawls A Theory of Justice (1971). Our extension, in a sense, lifts his proposed veil of ignorance and informs the disadvantaged of their societal position after a first round of the experiment. We begin with briefly describing the original experiment. Afterwards our proposed extension is described and contrasted against the outcomes of Faillo et al. (2015). We still have some reservations/doubts how far an approach with the “veil of ignorance” makes sense and what kind of (policy) implication could follow as logical outcome with respect to “terms of reality and power relations”, which we will therefore discuss at the end.

### 2. The base Experiment

Our study builds upon the work of Faillo et al. (2015), extending their experimental framework. Faillo et al.

(2015) aim to investigate whether individuals conform with a norm selected under conditions of the “veil of ignorance.” In this setup, participants are unaware of their societal position, thereby the choices of the subjects are supposed to not be self-interest and should illustrate their preferences regarding what distribution they perceive as fair.

To achieve this, Faillo et al. (2015) devise an exclusion game, akin to a “triple mini-dictator game” (p.12), involving three active players referred to as A players. These A players determine the allocation of 60 tokens among themselves and a dummy player, denoted as Player B. Player B lacks decision-making power and cannot participate in the decision process. The three active players have the option to select from three distribution rules: {15,15,15,15}, {18,18,18,6}, and {20,20,20,0}, where the last payoff corresponds to the share remaining for Player B. The three players have ten trials to reach an unanimous agreement on the rule they perceive as the fairest.



\* In OTO outsider is informed about the rule chosen by the insiders, while insiders are not informed about outsider's original group's rule; in OTT both insiders and outsider's rule are common knowledge.

Figure 1: The four treatments of the experiment, Source: Supplementary material of Faillo et al. (2015, p.9): [http://www.econometica.it/allegati/FOS\\_PUCH\\_Supplementary material.pdf](http://www.econometica.it/allegati/FOS_PUCH_Supplementary_material.pdf)

Faillo et al. (2015) introduce four distinct treatments. The baseline treatment directly starts with the exclusion game without any preliminary voting procedure under the veil of ignorance. In the agreement treatment, subjects operate under the veil of ignorance, unaware of whether they are Player A or Player B. The four participants collectively vote for one of the three distribution rules. After achieving unanimous agreement, the veil is lifted, revealing their respective roles as Players A or Player B, and they proceed to play the exclusion game where only the three players A decide which distribution to select. Two additional outsider treatments involved randomly reassigning Player A after choosing under the veil, to another group of players (refer to Table 1).

The main result of interest for our own extension is as follows: in both the agreement and outsider treatments, nearly all groups reached consensus on the {15,15,15,15} rule. This is based on this result that we built our own hypothesis that we present in the next section.

### 3. A Proposed Extension for the Exclusion Game

#### 3.1 Motivation and Description

While in itself the experiment conducted by Faillo et al. (2015) clearly shows, what the conditions for ex-post stability are, one could argue that the experiment offers room for further investigation. In the original experiment, the dummy player B serves no other purpose aside from receiving a payment or not, depending on the other three players' decision rule. Player B does therefore not hold any decisional power; they are, as the name of the game implies, excluded.

This exclusion offers an interesting parallel to societal structures. If one considers only the case, in which player B receives nothing, i.e., the {20,20,20,0} rule is chosen, player B becomes, in a sense, "ostracized" from the model society, since no resources are allocated to them. This reflects societal circumstances, in which well-endowed individuals hold more power than those with little to no resources. Interestingly, on a macro-level, rich individuals tend to exert their political power in such a way that redistributive measures

become less likely to be implemented (Page et al., 2013). But also on a household level, e.g., in marriages, the spouse with a relatively higher income holds more decisional power, which can lead to a higher gender inequality within households and decision-making that leads to financial dependency (Vogler & Pahl, 1994).

However, while these underlying issues certainly motivate our proposed extension, they are not at the core of the investigation, which focuses on the dummy players. Let's assume the first stage of the base experiment has been run. We propose conducting an additional treatment. Once the initial decision under the veil has been made, the groups of four, whose unanimous decision was the distribution of {20,20,20,0} are singled out. Out of these groups, new groups are formed, consisting only of those players, that have previously been assigned the role of the dummy player B.

A <sub>11</sub>	A <sub>12</sub>	A <sub>13</sub>	B <sub>1</sub>
A <sub>21</sub>	A <sub>22</sub>	A <sub>23</sub>	B <sub>2</sub>
A <sub>31</sub>	A <sub>32</sub>	A <sub>33</sub>	B <sub>3</sub>
A <sub>41</sub>	A <sub>42</sub>	A <sub>43</sub>	B <sub>4</sub>

Figure 1: Schematic of new group formation; previous dummy players become new group (yellow)

The roles in this group are randomly assigned and are the same as previously specified: There are three players with decision power and one player, henceforth called player C, is once again assigned the dummy role. After the new groups have been formed, all players are informed of the following:

- (1) In the first stage of the experiment, there has been a unanimous decision of their previous group to assign them an endowment of 0.
- (2) They have been reassigned to another group, that consists only of players that have previously been allocated an endowment of 0 as well.

Afterwards, the newly formed groups are asked to, once more, play the exclusion game and find a unanimous agreement on a distribution within ten trials.

### 3.2 Hypothesis and Expected Results

In its essence, our proposed extension boils down to another treatment which one could call “Dummy Treatment”. But what do we expect from conducting it? As previously mentioned, our extension hinges on the assumption that the dummy players B are at the fringe of the (theoretical) society, with no decisional power whatsoever. Due to the fact that after the initial decision made by others their endowment amounts to zero, they can also be considered to be suffering from poverty. Their socio-economic status therefore significantly differs from the players with decisional power and a non-zero endowment. From this stems our interest in further analyzing what happens, if the dummy players are given decisional power. The question we would like to answer is, whether the sense of justice differs with the notion that oneself has been the victim of injustice.

Barry (1998) notes that strictly speaking, social exclusion and poverty are separate phenomena, but are linked by the way societal institutions allow for participation independently from income. By giving the dummy players decisional power, we create a more accessible institutional environment. When playing the exclusion game once again, it is important to note that all players come from a place of poverty. A low income is generally associated with higher preferences for redistribution (Alesina & Giuliano, 2011). Low income does not necessarily mean living in poverty (e.g., in the case of high wealth), but low income in combination with self-identifying as the lower class in society also increases support for redistributive measures (Shayo, 2009).

In the baseline experiment only around 5% of participants voted for the equal distribution and 74% opted for the fully exclusionary distribution of {20,20,20,0} (Faillo et al., 2015). Before the baseline and each treatment, the authors also test for each player, whether the belief of what the other players will vote for (first-order empirical expectations, FOEE) is in line with what the player thinks the other players expect him/her to vote for (second-order empirical expectations, SOEE)

and find that for most players, the beliefs converge and are also in line with players’ normative expectations (Faillo et al., 2015). If we consider this together with the fact that individuals tend to identify with their respective social class and develop favoritism inside their own group (Seki, 2023), it leads us to believe that in the repetition of the exclusion game, player C will not be given an endowment of zero as often. We suggest the following hypothesis:

**H1: Participants in the “Dummy Treatment” will choose the egalitarian distribution {15,15,15,15} more often than in the baseline.**

One counterargument to this assumption is that it could also be argued for a more malicious behavior of players B, in the sense that they will seek “retribution” for being treated unjustly and will therefore vote for an unequal distribution. However, it has to be considered that all players know that everyone in their group has been sidelined in the first round and due to the previously mentioned intragroup favoritism (Seki, 2023) and the reciprocal expectations (Faillo et al., 2015), we consider this unlikely. Whether disadvantaged individuals, once they are put into a position of power, would tend to punish those who have treated them unjustly, could be subject to further investigation, e.g., via another treatment that shifts power to player B, without changing the composition of the groups.

### 4. Policy Implications stemming from the possible Results and Discussion

Considering our expected results would hold in practice, there are certain implications. They would show that a social contract negotiated without everyone having an equal stake in the negotiation process is not ex-post stable, adding to the stability criteria that are already thoroughly investigated in the original paper by Faillo et al. (2015). In our case, the extension would show clearly diverging redistributive preferences based on the societal position. Only if the social contract can ensure a post-contractual redistribution scheme that is envy-free, it could hold in practice without the disadvantaged eventually pushing for renegotiation (Neumärker, 2017).

However, a fully equal distribution in a society is unrealistic and seems hard to sustain. The question therefore is, how to make an unequal distribution, validated by the social contract, renegotiation proof. One could argue that this strongly depends on the preferences of the individuals that are ex-post disadvantaged. If, subject to whether the expected results from our extension hold, the reason for their choice of an equal distribution is fully driven by intragroup favoritism, a targeted benefit scheme seems adequate to make the social contract more stable, since those in need will be insured.

But this neglects that, while the veil is in principle lifted after the first round, the second round once again lowers it, since the participants are, on one hand, informed about their position in the previous round and that the others in the new group have also been disadvantaged, but, on the other hand, they societal deck of cards is “reshuffled”; there is no guarantee at which position they will end up in round two. Therefore, a scheme that ensures against all possibilities, like a universal basic income, could prove even more stable.

After this brief evaluation of possible policy implications, we would like to conclude this section with a critique. Rawls, in his Theory of Justice (1971), argues that institutions are just, if we accept them under the veil of ignorance. On the other hand, with the knowledge that institutions can be justified plus the public awareness of reciprocal expectations of conformity, we might develop a psychological attitude of conformity that counteracts self-interest with justified institutions. The Sense of Justice does not pay attention to power, which according to Michel Foucault, is everywhere and institutions are power which is visible. Is it really possible that we accept institutions without having engagements with power issues (under the “veil of ignorance”)? And this leads us to think how practical it is to talk about agreements under the “veil of ignorance” because it is not possible that we become non-self-interested. With Foucault, knowledge is power, hence with more knowledge and awareness what should be

expected is more resistance to institutions rather than conformity. There are implications with this critique on our experiment: if it is realistically not possible to be in the state of “veil of ignorance”, why should we have the base experiment?

Regarding this, there are certain questions that concern us. For example, what happens if someone comes to realize that they were mistreated/treated unjustly? On the scenario of redistribution, for instance, how would the powerful react in terms of redistribution: Would they feel more normative pressure towards equal distribution? Or would they feel more pressure to hold on to their position of unequal distribution? There is also the possibility that they would be left confused and unsure, i.e., would not know whether to equally distribute or unequally distribute.

Furthermore, with respect to our proposed extension, there is an assumption of self-consciousness in the low-income group of earners. However, may very well be not a homogeneous group; they do not have low income for the same reasons (some reasons are potentially under the control of the individuals and others beyond them); some low-income earners are included, while others are excluded and marginalized. If the low-income earners are aware of their heterogeneity, will they still be inclined to equal distribution? If they also come to realize the distinction in terms of their causes for low income, for example, would they still be in favor to equal redistribution?

## 5. Conclusion

In this short paper we have shown a possible extension for the experiment conducted by Faillo et al. (2015) that could investigate possible deviations in decision making of those that have been previously disadvantaged in the base experiment. Of course, the framework described here is rudimentary and further conception as well as actually conducting such an extension could prove our proposed design difficult to implement. Nevertheless, we are convince that our proposals at least gives ground to argue for closer look into the ex-ante decision-making of

actors that have previously been ex-ante overruled and, consequently, ex-post disadvantaged, since focusing on the could prove valuable insights into attitudes towards social justice as well as the stability of a (newly negotiated) social contract.

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