# Intergenerational Resource Sharing:
# An Experimental Study Using Rawls's Veil of Ignorance

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Based on Rawls's Veil, one may question the legitimacy of many decisions made by the currently living where burdens are shifted on future generations. For Rawls, this is normatively inacceptable: knowing their place in the generational sequence, the current generation fails decide from an impartial perspective. Starting from Rawls's theory, we conducted a laboratory experiment on intergenerational resource sharing with 120 student participants. One part had to distribute a given endowment over 5 generations in the form of a sequential dictator game. In a second treatment, people could *ex ante* agree on a joint distribution; there was no formal enforcement mechanism, and people knew their position in the sequence. The third treatment was similar to the second, but while bargaining, people did not know their later position. As expected, bargaining as such created more equality, but to our surprise, the third treatment produce less egalitarian outcomes than the second one.

*Extended Abstract*

One of the central problems for justice relations between non-overlapping generations is that the currently living can abuse their *de facto* power over those who will be born later. Consequently, one can question the legitimacy of many decisions taken by current people where costs are shifted to the future. John Rawls (1971, 2001) was one of the first to explicitly address also the problem intergenerational justice. Based on his thought experiment of veiled decision making, he asked—apart from deriving intragenerational distributional principles—on what distributional rules people would agree if they did not know their place in the generation sequence. Here, we follow Rawls's later approach of deriving distributive norms for non-overlapping generations purely based on self-interest, where intergenerational "altruism" can only occur as the result of indirect reciprocity between generations. Rawls himself was rather silent on what form his thereby derived Just Savings Principle would take. Related, more detailed thought experiments may produce more concrete rules, but their results crucially depend on the assumptions about the decision making behind the veil. The same problem also arises for the justification of intergenerational distributive rules, as the dispute between John Rawls and John Harsanyi (1975) shows. Therefore, Norman Frohlich and Joe A. Oppenheimer (1992) ran a set of experiments where real people, put in in an approximate Original Position, had to unanimously decide on how to distribute income intragenerationally. Similar to these studies, we conducted an intergenerational distributional experiment where student participants had to distribute a given endowment among five sequentially interacting players. The first setup ("Treatment 1") was a simple five person dictator game: from the initial endowment of 20 € (public knowledge), the first player took as much as she liked, passing the remainder to the second one. This person than similarly could take between zero and all of the money left from player 1,

passing the rest and the information how much person 1 and 2 had taken to player 3. Players 3 and 4 decided analogously, leaving player 5 with the final remainder left by players 1 to 4. In a second treatment with new participants ("Treatment 2"), all five players could agree *ex ante* on a distribution via an anonymous chat, knowing their position in the later sequence. There was no formal enforcement mechanism, so the realization of the contract rested on the moral self-constraint of each individual. In the third setting—the "Rawlsian" one—people could agree via a chat as before, but this time were left ignorant about their position in the sequence ("Treatment 3"). Based on Rawlsian arguments and in line with what more than 80% of the participants had stated as the fair distribution, the normative ideal in all three settings was equally sharing the 20 €. Overall, 120 students participated in the experiment, with 40 students and hence 8 groups per treatment. As expected, bargaining as such let people share more equally, but to our surprise, the Rawlsian treatment lead to somewhat less egalitarian outcomes. Table 1 shows first of all the Gini-Index results, which gives a measure for overall equality, and additionally the explicit figures for the first and the last player.

| *Treat-ment* | *Gini Coeffizient* | *Amount taken by player 1* | | *Amount left for player 5* | |
|---|---|---|---|---|---|
| | | *Absolute (€)* | *Proportion of total 20 € (%)* | *Absolute (€)* | *Proportion of total 20 € (%)* |
| 1 | 0,57 | 11,84 | 59,2 | 0 | 0 |
| 2 | 0,17 | 4,50 | 22,5 | 2,30 | 11,5 |
| 3 | 0,26 | 7,33 | 36,7 | 1,78 | 8,9 |

**Table 1.** *Gini Coefficient, amount taken by player 1 and amount left to player 5, for treatments 1, 2 and 3. Source: authors' compilation.*

Unfortunately, the still low number of groups does not allow a final statement if the differences between treatment 2 and 3 are significant, but still, the trend is surprising. One hypothesis is that even when knowing their position, once people accept to bargain and to agree on an "intergenerational contract", the discourse leads people to take an impartial perspective, deliberately ignoring that they know their place in the generational sequence. This hypothesis is in accordance with the qualitative statements people made in the post-experiment questionnaires they were asked to fill in. So the "Rawlsian" element of suppressing the participants' knowledge about their position then does not seem to make the veil argument stronger. It might even create less moral self-constraint, since the participant did not make the effort of ignoring this piece of information on their own account. So in treatment 2, if people take the effort to take an impartial stance, it might be more of an "intrinsic" veil, while Treatment 3 created an "extrinsic" one which people felt less obligate to.

Although our results do not directly imply policy recommendations, we think the approach of intergenerational veiled bargaining in the laboratory could be a tool to answer additional and more detailed questions related to intergenerational justice, for example involving naturally growing resource stocks or the production and maintenance public goods. Such counterfactual "inter- and intragenerational contracts" may contribute to the formulation of a normative benchmark for actual policy making where conflicts among generations or between intra- and intergenerational justice occur, both of which a common concern in ecological economics.

## Cited Literature


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