JENA ECONOMIC RESEARCH PAPERS

2010 – 040

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www.jenecon.de

ISSN 1864-7057

The JENA ECONOMIC RESEARCH PAPERS is a joint publication of the Friedrich Schiller University and the Max Planck Institute of Economics, Jena, Germany. For editorial correspondence please contact markus.pasche@uni-jena.de.

Impressum:

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D-07743 Jena
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Jena Economic Research Papers 2010 - 040

Whose impartiality? An experimental study of veiled stakeholders, impartial spectators and ideal observers

Fernando Aguiar*, Alice Becker† and Luis Miller‡

June 22, 2010

Abstract

This article defines in a precise manner three different mechanisms to achieve impartiality in distributive justice and studies them experimentally. We consider a first-person procedure, the Rawlsian veil of ignorance, and two third-party procedures, the impartial spectator and the ideal observer. As a result, we find striking differences in the chosen outcome distributions by the three methods. Ideal observers that do not have a stake in the allocation problem nor information about their position in society propose significantly more egalitarian distributions than veiled stakeholders or impartial spectators. Risk preferences seem to explain why participants that have a stake in the final allocation propose less egalitarian distributions. Impartial spectators that are informed about their position in society tend to favor stakeholders holding the same position.

Keywords: impartiality, veil of ignorance, impartial spectator, distributive justice
JEL classification: C72, C92, D63, A13

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Impartiality is one of the principle virtues of public institutions. That judges, civil servants or politicians may act partially in their private lives (for example, by favoring their children over the children of others) is perfectly legitimate. In contrast, that they act in a biased, partial manner in their respective positions to either benefit themselves or family and friends, or to even harm others is wholly illegitimate. Such conduct undermines the very foundations of the institutions for which they work. Indeed, partiality in the public sphere can lead to corruption, which completely outlaws a political system (Warren 2004).

It should come as no surprise, then, that heated debates are launched in the public arena when impartiality as a democratic value is threatened. In the USA, for instance, an intense debate has been initiated on the impartiality of judges that embark on complex judicial campaigns (Huber and Gordon 2004; Gibson 2008). Judicial impartiality may be seriously weakened when judges must engage in an electoral battle to become re-elected given the inevitable features of such campaigns: the defense of personal interests, attack ads, campaign contributions, and politicians' support of different candidates. The institutional legitimacy of the justice system may come under threat when citizens question the impartiality of judges as a result of these campaigns.

An interesting debate has also been launched recently in France on the impartiality of companies hiring new personnel. In 2006, a law was passed in France that obligated companies with more than 50 employees to accept anonymous curricula vitae to prevent discrimination in filling vacancies. The measure attempted to impede companies from excluding candidates for ethnic, gender or social reasons. Although the law was initially ignored, in 2009 a few hundred French firms decided to implement the anonymous CV scheme in an experimental manner.[1]

However, in spite of the key importance of impartiality in social and political

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[1]Relance du CV anonyme, outil de lutte contre la discrimination à l'embauche, Le Monde, 3.11.2009.

life, there are frequent doubts concerning the best mechanisms to ensure impartial conduct. The aim of the present study is to define in a precise manner and experimentally study different mechanisms to achieve impartiality in matters of distributive justice. We begin with a discussion of previous research, where we distinguish four types of procedures to obtain impartial results, and review related experimental literature. We then present our experimental design and predictions. Finally, the experimental results are presented and discussed.

Types of impartial procedures

Impartiality is a negative concept which, from a formal viewpoint, is constrained to prescribing that we should not be partial, that is, that our actions should not take into account who they benefit or who they harm (Gert 1995). In other words, what the formal concept of impartiality tells us is that we must give equal treatment to all in order to treat all as equals (Dahl 1989; Barry 1995), but it says nothing about how to do so.

When choosing general principles of distributive justice, there are a few mechanisms to ensure that the conditions of impartiality are in place. The question is to determine, first, who is to take the decision, and, second, what information this person must have to make the decision. The decision maker can be the stakeholder herself (first-person impartiality devices) or an uninvolved third person (third-person impartiality devices). Both types of decision makers can have either all or only part of the information that is relevant to the situation at hand. The impartial mechanisms that result from this distinction can be summarized in the following ideal types:

	Part of information	**Full information**
First-person perspective	Veil of ignorance	Ideal speech situation
Third-person perspective	Impartial spectator	Ideal observer

Table 1: Impartiality-inducing mechanisms

Some of these mechanisms have given rise to influential theories of distributive justice and a vast amount of experimental papers, particularly on the veil of ignorance as we will see in the following section. First, we will highlight the central elements through which these different procedures attempt to ensure that impartiality is not merely formal, but substantive. After that we will give a short overview on the related (experimental) literature.

The metaphor *veil of ignorance* originally proposed by John Rawls ultimately reminds us that our personal interests and prejudices favor partial reasoning. For Rawls, then, if a rational and self-interested stakeholder is placed in an 'original' position in which she does not know her place in society because she is covered by a veil of ignorance, impartiality is assured. In such a hypothetical situation everyone is treated with equal concern and can choose the principles of justice freely (Rawls 1971; 2001).[2]

The third-party impartiality procedures share with the theory of the veil of ignorance the idea that impartiality can only be achieved by excluding the personal interests of the stakeholders from the decision. To achieve this aim, the decider must be left out of the decision-making process, which is undertaken from the perspective of a third-person who has nothing to gain from the outcome of the decision.

In the more radical case of these third-party procedures–that of the *ideal observer*–it is not that the observer is well informed but she is assumed to be all knowing, omniscient. In addition to having a powerful imagination, the observer must be disinterested, dispassionate and logically consistent (Firth 1952; Mongin 2001). Thus we can claim that any political principle governing society will be impartial, objective and universal when it is established by an ideal observer.[3]

[2]In his influential discourse ethic, Juergen Habermas (1990) sets the principles that should regulate a good society based on what he calls the 'ideal speech situation' that is, an impartial context free of any kind of constraint. However, ideal speech situations are not covered in this paper.

[3]At first glance the ideal observer theory could seem completely out of focus. However, the ideal

One of the main problems of the ideal observer theory is that, in spite of stipulating an omniscient observer, it excludes parts of information that could be crucial to making impartial decisions. Specifically, the fact that the ideal observer is dispassionate (much like a machine) rules out information that could help in making impartial decisions. The ideal observer-like the veiled stakeholder–does not put herself in someone else's shoes when reasoning impartially. Neither the ideal observer nor the veiled stakeholder reveals sympathetic preferences (Binmore 1994; Sudgen 2002), as they are 'mutually disinterested rather than sympathetic' (Rawls 1971, 187). The situation in which both the ideal observer and the parties in the Rawlsian original position find themselves forces them to see their arrangements in a general way, and not out of interest for others.

The *impartial spectator,* on the other hand, is neither disinterested nor dispassionate, but an emotional being that attempts to obtain the best possible information about a case upon which she must take an impartial decision: '[The spectator] must adopt the whole case of his companion with all its minutest incidents; and strive to render as perfect as possible, that imaginary change of situation upon which his sympathy is founded' (Smith 1976, 7). Thus, while it is true that for Smith the spectator 'will be impartial just because he is not a party to the conduct judge' (Raphael 2007, 19), the spectator must also be capable of sympathizing with the other person from both a cognitive and an emotional standpoint if she is to exercise impartiality (Griswold 1999; Konow 2009). For this reason, the spectator is not merely a disinterested and dispassionate observer, she is not a super judge, but an attentive spectator, who by imagining that she is in the others' shoes fully identifies with their situation. This emotional and cognitive identification permits the

observer has had a large influence on some anti-positivist theories of law (Dworkin 1977; Hare, 1981). The idea, for example, of an infallible judge with superhuman powers - Dworkin's judge Hercules - is based precisely on the theory of the ideal observer. Real judges would be impartial if they held the perspective of a judge Hercules as a prescriptive ideal to which to aspire, although they know full well that such an ideal cannot be attained.

spectator to make impartial judgments that either morally approve or disapprove of the actor and which, in turn, permit consensus to be reached on the principles governing society.

The distinction between the veil mechanism and the spectator mechanism is evident. Hidden behind a veil of ignorance, the decider is a stakeholder who possesses no information about herself, has full information about the laws governing society and human psychology, lacks sympathy and is therefore dispassionate, and makes decisions ex-ante in an uncertain situation (Rawls 1971). The impartial spectator is not a stakeholder, although she is immersed in a situation that she must judge impartially. She is neither an ideal observer, nor omniscient and disinterested, but is well-informed about herself and the case she must judge; a judgement that can only be made ex-post, that is, once the spectator is in possession of all the relevant facts. Moreover, the impartial spectator is an emotional being that sympathizes both cognitively and emotionally with the other person, meaning that the general rules of society cannot be deduced from a hypothetical situation, but emerge from 'our continuous observations upon the conduct of others' (Smith 1976, 86). In light of these differences, which of the three mechanisms can best ensure impartiality?

Related experimental literature

In contrast to the aims of this article, the majority of experimental papers have centered on the results of real decisions behind an experimental veil of ignorance rather than on the question of impartiality itself. Assuming that this mechanism produces impartiality, much of the experimental work has consisted in investigating if real deciders behind a veil of ignorance would choose the Rawlsian difference principle or another principle of justice rather than concentrating on the nature of impartiality (Frohlich and Oppenheimer 1992; Scott et al. 2001; Michelbach et al. 2003; Becker and Miller 2009). Depending on how the experiments are designed, the conclusions are of the most varied kind: from those that support Rawls to those

that do not find experimental support for him, although there seems to be general consensus that behind the veil experimental subjects choose a 'package' of principles in which, depending on the circumstances, merit, equality, efficiency and needs are assigned greater weight.

Methodological questions have raised concerns on the possibility of taking Rawls' mental experiment to the laboratory. Indeed, the experimental subjects know their real identity, and impartial reasoning can therefore be affected by the personal characteristics of the subjects when making a decision in an experimental setting (Frohlich and Oppenheimer 1992). Does the same thing occur with an ideal observer and with an impartial spectator? In other words, is impartiality threatened when the decision is made in a laboratory by a spectator or a detached observer? And how can these other impartial mechanisms be taken to the laboratory setting? There are few works that pose this question and even fewer which compare the results of different procedures from the viewpoint of impartiality.

Amiel et al. (2009), for instance, use a questionnaire experiment in which they compare the distributive decision of two different observers: detached and involved observers. Involved observers are asked to imagine that they themselves are going to suffer the consequences of two different economic policies that will be implemented in an imaginary world. They show that the experimental subjects are more willing to accept policies to redistribute income from the poor to the rich when they occupy the position of detached observer rather than involved evaluator. The authors of the study claim that since the involved evaluator is influenced by the outcome of the redistributive policy, she will inevitably act from a partial, self-interested perspective.

In a similar vein, Traub et al. (2005) compare the decisions of a self-concerned subject to those of an umpire in a risky scenario and in an ignorance scenario (where 'scenario' means 'future income position'). The umpire is an outside observer (a judge, a policy maker), that is, someone without stakes in the game after the veil has been lifted. In the self-concern mode "the evaluator is asked to imagine that

she becomes an income recipient within her most favored income distribution after the veil of ignorance has been lifted" (p. 284). What is of interest to us here is the fact that the authors compare the behavior of self-concerned subjects and umpires in risky and uncertain situations and reach the conclusion that the umpires show much less aversion to inequality than the self-concerned subjects. Moreover, this moderate aversion bears no relation to the information that they are given about probabilities on the different income distributions.

These and other similar works provide important information about the decisions made by experimental subjects in situations other than the veil of ignorance setting. However, the general aim is to analyze the final results of a variety of impartial mechanisms, without questioning the actual impartiality of such mechanisms. In this sense, the work by James Konow (Konow 2003; 2008; Croson and Konow 2009) is an exception. Unlike other experimentalists, Konow explicitly assumes that more information is better than less. Impartiality is not a matter of ignoring one's identity and circumstances but instead a matter of gathering morally relevant information, that is, information that causes a statistically significant shift in the mean judgment of spectators. In Konow's words, "relevant information [not only] reduces stakeholder bias to insignificance" (Konow 2008, 19), but promotes consensus.

Konow distinguishes between three theories of impartiality: Rawls' veil of ignorance, Habermas' discourse ethic, and Smith's impartial spectator. These theories share a common ground, namely, all of them accept that impartiality entails the absence of bias and promotes consensus. Konow claims, however, that Smith's theory is the most promising one in generating impartial results, at least from an empirical point of view. However, not much empirical work has been done on the Smithian impartial spectator.

In order to bring the impartial spectator to the lab, Konow proposes what he calls a 'quasi-spectator model' due to the difficulties of implementing the Smithian spectator per se. The quasi-spectator is a real world, third-party observer that should not be a salient stakeholder and is well, but not completely, informed. The

quasi-spectator does not take a decision under risk or uncertainty. In a series of experimental and vignette studies, Konow shows that relevant information leads to consensus among the spectators, promotes consensus among the stakeholders and, most importantly, that stakeholders with relevant information could become sympathetic spectators (Konow 2008; Croson and Konow 2009). In other words, relevant information produces impartial results among both spectators and stakeholders, thus questioning the idea that impartiality is better achieved in a context in which personal identity is ignored.

We build on this existing literature by experimentally comparing different types of impartiality. We depart from previous studies by comparing behavior under three different impartiality conditions: a veiled stakeholder, an impartial spectator and an ideal observer. The experimental design is described in section 4.

Experimental design and procedures

We study a three-person distribution problem where a pie is allocated among three members of a group, whom we call *veiled stakeholders*. In addition, every group has an associated *spectator*.

Stakeholders and spectators differ in their *perspective* on the situation, which is our first treatment variable. Although both veiled stakeholders and spectators make a decision upon the distribution of the pie, stakeholders are affected by the distribution and thus decide from a *first-person* perspective, while the spectators remain unaffected and therefore take an outside or *third-person* perspective. Our second treatment variable is the amount of *information* that each decision maker has on the situation at hand. For purposes of clarity, in what follows we describe the situation in more detail.

Veiled stakeholders differ with respect to an initial endowment. Following a specific procedure at the beginning of the experiment, the stakeholders are assigned either a *low*, a *medium* or a *high* relative endowment position. The procedure

assigns the positions to the stakeholders in an arbitrary way such that subjects cannot infer their own position from it. The relative endowment position implies that each stakeholder receives an actual endowment in each round of the experiment, which is denoted by e_{low} for the lowest, e_{medium} for the medium, and e_{high} for the highest endowment according to the ranking that was previously determined by the position.[4]

Spectators also differ with respect to an initial endowment. Half of the spectators receive a fixed endowment, which is the same in each and every round. We call these spectators *ideal observers*. The other half is assigned an endowment position and receives an actual endowment in each round according to the same procedure that the stakeholders engage in. These are called *impartial spectators*. This treatment distinction is established to grasp the theoretical difference between these two impartial procedures. The ideal observer is *ideal* because she has all the information she needs to judge a *real* situation which she is not involved in at all. In contrast, the Smithian impartial spectator is a real person embedded in society that judges social situations impartially by putting herself in other people's shoes. To re-create the Smithian impartial spectator in the lab we place the spectator in the same initial (arbitrary) situation as that of the stakeholder. This allows us to study whether sympathy emerges and whether it affects impartiality.

Now, whereas stakeholders learn neither their relative endowment position at the beginning of the experiment nor their actual endowment in each round, spectators are informed about it. However, the instructions state that the stakeholders receive one of the three endowment positions. How much endowment actually goes to each position, and thus the set of actual endowments, is made public in each round. Even though this is common knowledge, stakeholders lack one important item of information for making their decision on the distribution of the pie, namely

[4]The arbitrary initial distribution is designed to resemble real world unequal distributions. Stakeholders' ignorance regarding their positions is demanded by the Rawlsian impartiality conditions we are simulating.

their own endowment position.

Given that spectators and observers decide from an outside perspective, they occupy a position such that they do not economically benefit from the decision they take. As long as ideal observers are completely detached they are not emotionally affected by the social situation of the subjects either–they do not feel sympathy. We suppose, however, impartial spectators may develop a feeling of sympathy towards stakeholders' situation for they share the same initial endowment and they can better understand the stakeholders' situation.[5]

Although the sets of actual endowments differed from round to round, the average endowment was kept constant at 40 Experimental Currency Units (hereafter ECU), which was also equal to the fixed endowment of ideal observers. The endowment sets varied in terms of the inequality between the three endowment positions, which is measured by the standard deviation of the endowment sets. The experiment comprised 12 subsequent rounds. The endowment sets varied in each round the inequalities corresponding to them range from a standard deviation of 0, where each endowment position received 40 ECU, to a standard deviation of 52.91, where *low* received 0 ECU, *medium* received 20 ECU and *high* received 100 ECU. The task for each subject in every round consisted of allocating an additional pie of 180 ECU among the three stakeholders, i.e. relative endowment positions. One of the four decisions in each group was randomly selected and implemented. Veiled stakeholders received the share of the pie that was allocated to their position in addition to their actual endowment. Spectators and Observers received a fixed payment of 60 ECU for their decision plus their endowment. The experimental design is summarized in Table 2.

In the second part of the experiment we assessed subjects' individual value ori-

[5]Being dispassionate, ideal observers disregard this kind of information. They are fully informed because they have all the information they need. On the contrary, impartial spectators do not disregard emotional information–sympathetic information. However, as real observers they are not fully informed by definition.

Information	Perspective	**Treatment**	own endowment	paym. distribution game
part	1st-person	**Stakeholder**	e_{low}, e_{medium} or e_{high} (behind a VOI)	dep. on position and decision implemented
	3rd-person	**Impartial spectator**	fixed (40 ECU)	fixed (60 ECU)
full		**Ideal observer**	e_{low}, e_{medium} or e_{high}	fixed (60 ECU)

Table 2: Experimental design

Note: In each treatment the group consists of three stakeholders and one spectator. Each group member decides on how to allocate the pie of 180 ECU among the stakeholders. The sum of the endowments equals 120 ECU. Whereas the stakeholders do not know their endowment, the spectators learn it before distributing the pie.

entation by using the 'Ring-test' (Liebrand 1984). During this part subjects made 16 choices between two self-other combinations and were based on that classified into aggressive, competitive, selfish, cooperative and altruistic types. A more detailed description of the test is provided in Offermann et al. (1996).
At the end of the experiment and after providing feedback about the payment, we asked the subjects to fill out a post-experimental questionnaire, including demographic questions, their region of origin and social background. We also elicited their (normative) beliefs and their risk attitude in a non-incentivized way.[6]

The computerized experiment was conducted at a large university in Germany using the z-Tree software (Fischbacher 2007). The participants in the experiment were undergraduate students from different disciplines who were recruited using ORSEE (Greiner 2004). None of the participants was informed of the purpose of the experiment and the subjects were allowed to participate only once. After being seated at separate computer terminals, the subjects received written instructions, which were also read aloud by the experimenter to ensure that the they shared the

[6]For risk elicitation we asked: *How willing are you to take risks in general?* (Dohmen et al. 2010). Subjects had to indicate their risk attitude on a scale ranging from 'not at all risk taking' (0) to 'very risk taking' (10).

same knowledge about the experiment.

The experiment began with a control questionnaire, which the subjects had to complete to ensure that they understood the instructions. Questions were answered privately. We ran 8 sessions in total. In three sessions per treatment we applied the decision method, while in two sessions we applied the strategy method; one for the ideal observer treatment and the other for the impartial spectator treatment. Each session lasted on average 1.5 hours and involved 24 participants, of which 18 were stakeholders and 6 were spectators. The subjects earned experimental currency units (ECU) during the sessions, which were later transformed into euros at an exchange rate of 100 ECU=10 €. The average earnings per subject were 15 €and ranged from a minimum of 3.95 €to a maximum of 23.75 €, including the show-up fee of 2.50 €.

Predictions

From a normative point of view, all three mechanisms we implement have the same objective: to achieve impartiality. From this perspective, the decisions of stakeholders, ideal observers and impartial spectators should therefore not differ. Taking into account that the initial distribution of endowments was completely arbitrary, the decision of the three impartial deciders should lead to the same result from a distributive justice point of view, namely the initial inequalities should be redressed and the final endowments equalized as there is no reason to give more to one subject than to another. From a behavioral point of view, however, we identify three factors that could make a difference in decisions.

A first factor is that of economic incentives. Whereas stakeholders have an incentive to find an allocation that satisfies their economic interest, spectators do not have an incentive to do so. Nevertheless, other incentives that could also motivate spectators to implement a meaningful decision are possible, such as the reduction of cognitive dissonance by choosing a just allocation (Konow 2000).

A second factor that possibly influences behavior is risk attitude, even though this is true only in the case of the veiled stakeholders. A risk-averse stakeholder would distribute the additional pie such that final outcomes are equal and thus compensate for initial differences. A risk-loving stakeholder, on the other hand, would gamble and distribute most of the money to the high endowment position. In the experiment we have included independent measures of risk attitudes as well as pro-social behavior in order to empirically disentangle risk aversion and pro-social motives.

A third factor that could affect behavior is connected to Adam Smith's argument that the spectator is not merely a disinterested and dispassionate ideal observer, but an attentive spectator that fully identifies with the other's situation by imagination. Sympathy for the stakeholder's luck could lead to a different decision than that of veiled stakeholders and ideal observers.

Results

The data were drawn from 8 experimental sessions involving a total of 192 subjects. Each session lasted for 12 periods. In six sessions we used the direct response method, while in two sessions we used the strategy method (Selten 1967).[7] Given that each subject makes 12 decisions, we obtained a total of 2880 allocation decisions, of which 1872 are from veiled stakeholders (hereafter VS), 504 from impartial spectators (hereafter IS) and 504 from ideal observers (hereafter IO).

[7]Under the direct response condition, every participant was always either a stakeholder, an impartial spectator or an ideal observer. Under the strategy method condition, every participant decided as a stakeholder and as either an ideal observer or an impartial spectator. We use the latter method to increase the number of observations for spectators and observers. As will become clear, the elicitation method does not affect participants' decisions.

Allocation decisions

Our empirical strategy relies on the comparison of participants' allocation decisions under the three impartiality conditions. To achieve this end, we first calculate the standard deviation of participant's allocation as a measure of the inequality of the allocation.[8]

Figure 1 shows the mean ex-post inequality under the three conditions. The mean ex-post standard deviation of VS and IS are 45% and 68% larger than the mean ex-post standard deviation of IO, respectively. We find similar results when we concentrate on the number of participants that propose an ex-post egalitarian distribution (standard deviation=0). The percentages of ex-post egalitarian decisions are 54%, 57% and 68% under IS, VS and IO conditions, respectively. Therefore, IO clearly behave in a more egalitarian way than VS and IS.

Are aggregate differences between the three methods a result of different behavioral patterns at the individual level? We model the decision to propose an ex-post egalitarian distribution and the decision to deviate from that distribution separately. This is done following the logic of a 'hurdle model' (Cameron and Trivedi 1998), where the two processes generating the ex-post egalitarian allocation (i.e. a standard deviation of 0), and the deviations from the ex-post egalitarian distribution (i.e. a positive standard deviation) are not constrained to be the same.[9] Whereas a random effect probit model is used to model the decision to propose the ex-post egalitarian allocation, a random effect tobit model is used to study the distribution of decisions above the hurdle (a positive standard deviation).

Controlling for the initial inequality, the period and the elicitation method,

[8] A standard deviation equal to 0 implies an ex-post egalitarian outcome where the three stakeholders receive the same final amount. The higher the standard deviation, the less egalitarian the allocation.

[9] More specifically, the hurdle model "uses a two-stage modeling process. The first stage models the binary variable that measures whether the response falls below or above the hurdle. The second stage uses a truncated model to explain the observations above the hurdle" (Min and Agresti 2005).

	Stage 1, Random Effect Probit	Stage 2, Random Effect Tobit
Stakeholder	0.511***	8.878***
	(0.127)	(2.624)
Spectator	0.549***	9.376***
	(0.176)	(3.514)
Initial Inequality	0.013***	0.443***
	(0.002)	(0.051)
Period	-0.043***	-0.641***
	(0.009)	(0.172)
Method	0.279	7.813
	(0.306)	(7.098)
Constant	-1.084***	-29.326***
	(0.216)	(4.781)
Observations	2888	2888
Number of subjects	192	192

Note: Results are obtained by random effect regressions using the standard deviation of participants' allocations as the dependent variable. Stakeholder takes the value 1 if the decision comes from a Veiled Stakeholder, 0 otherwise. Spectator takes the value 1 if the decision comes from an Impartial Spectator, 0 otherwise. Initial Inequality is the standard deviation of initial endowments and ranges from 0 (initial endowments are equal) to 52.91. Period takes values 1 to 12 according to the period of the experiment. Method takes the value 1 if the strategy method was used, 0 otherwise. *** denotes significance at the 1% level and ** at the 5% level.

Table 3: Hurdle Model Estimates of Inequality in Outcomes (standard errors in parentheses)

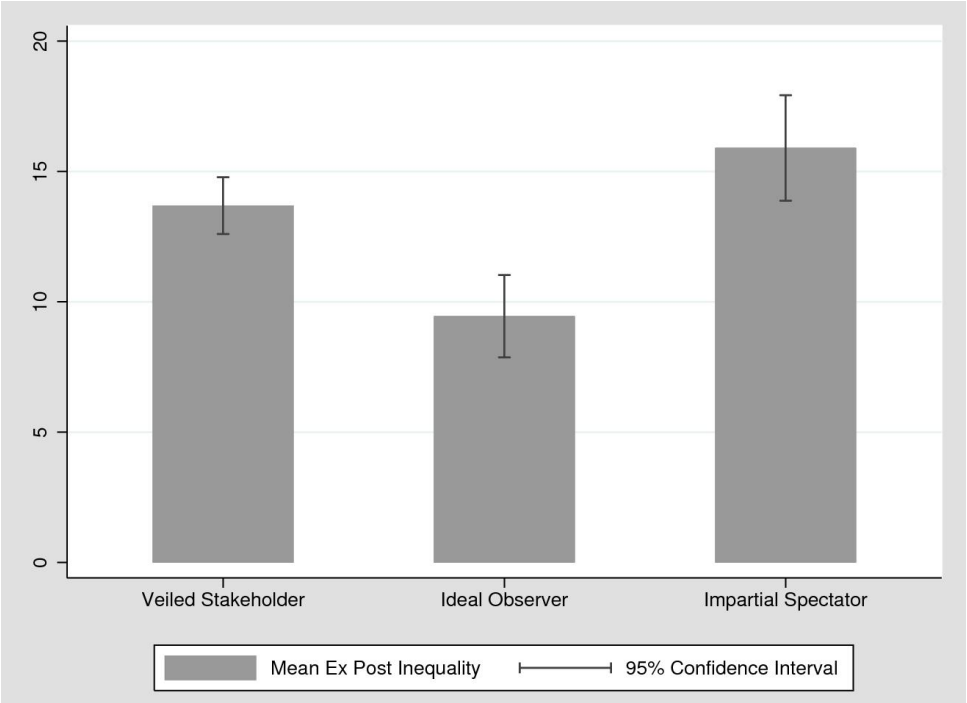

Figure 1: Standard deviation of ex-post outcomes for all treatments

both stakeholders and spectators are more likely than observers to deviate from the ex-post egalitarian distribution (see the probit model in Table 3). Once deviated from that distribution, VS and IS propose more unequal allocations than IO (see the tobit model in Table 3). Furthermore, we find that over time subjects are less likely to deviate from the ex-post egalitarian distribution, and also allocate more equally once they deviate.

Result 1. Ideal observers are more likely to propose an ex-post egalitarian distribution. They also propose more equal distributions overall.

Result 2. Subjects learn to allocate more equally over time.

Why do VS and IS behave in a less egalitarian manner than IO? In section 5.2. we explore a first answer to this question. We study whether risk attitudes and social orientation affect allocations under the three conditions.

Behavioral Determinants

We now explore some behavioral determinants of participants' decisions. Specifically, we concentrate on the impact of risk attitudes and social value orientation on allocation decisions under the three conditions.

Given that IS and IO have no stake in the allocation, risk attitudes should not matter for them. In contrast, VS' risk attitudes may bias their decision. A risk-averse stakeholder would propose an ex-post egalitarian distribution to protect herself against a bad outcome (Rawls 1971). On the contrary, a risk-loving stakeholder would allocate all the pie to the highest endowed position, hoping to be in that position once the veil is lifted.

The impact of social value orientation is not so clear *a priori*. Using the so-called ring test (Liebrandt et al. 1985), we categorized subjects into altruistic, cooperative, selfish, competitive and aggressive types (see Appendix for details). Most of our subjects (80%) were selfish types. Other than that, only the category of cooperative types was large enough to include in the analysis (19%). VS may have other-regarding preferences over the final distribution of outcomes and, therefore, intuitively cooperative types would propose more equal distributions. IS and IO have no stake in the distribution, therefore a distinction between selfish and cooperative types should not matter much for explaining behavior. On the other hand, Konow (2009) shows that this outside view, together with being sufficiently informed about the situation, is precisely what enables deciders to achieve consensus in choosing what they consider just or fair.

Table 4 shows that risk affects VS', but not IS' or IO's decisions. For stakeholders, the more risk averse a subject is, the more egalitarian the final outcome. Figure 2 plots this relation in more detail. Furthermore, the right graph (VS decisions) shows a number of observations in the top-right corner corresponding to high values of the risk variable and high levels of inequalities. This is qualitative evidence of the argument that risk-loving VS allocate a higher proportion of the pie

	Probit Stakeholders	Tobit Stakeholders	Probit Spectator	Tobit Spectator	Probit Observer	Tobit Observer
Risk	0.169***	3.998***	0.141	3.171	0.114	2.363
	(0 .061)	(1.286)	(0.134)	(2.557)	(0.174)	(3.154)
Cooperative	-0.317	6.701	-0.745	-20.579	0.004	1.351
	(0.376)	(8.042)	(0.867)	(16.669)	(1.088)	(20.345)
Low Type			-0.044	-0.561		
			(0.049)	(0.698)		
High Type			0.025	0.751		
			(0.060)	(0.857)		
Ini. Inequality	0.013***	0.366***	-0.061	-1.075	0.025***	0.749***
	(0.003)	(0.057)	(0.128)	(1.818)	(0.008)	(0.117)
Period	-0.027**	-0.273	-0.096***	-1.297***	-0.106***	-1.649***
	(0.011)	(0.192)	(0.027)	(0.383)	(0.028)	(0.391)
Method	0.463	8.939	0.443	8.902	0.241	3.062
	(0.326)	(6.964)	(0.674)	(12.817)	(0.826)	(15.450)
Constant	-1.463***	-37.189***	-0.219	-33.561	-1.925	-45.609**
	(0.389)	(8.194)	(1.229)	(20.464)	(1.216)	(22.432)
Observations	1872	1872	504	504	504	504
Number of subjects	156	156	42	42	42	42

Note: Results are obtained by random effect regressions using the standard deviation of participants' allocations as the dependent variable. Risk takes values 0-10, where 0 denotes 'not at all risk taking' and 10 'very risk taking'. Cooperative takes the value 1 when the subject has been classified as a cooperative type in the ring test, 0 otherwise. Low Type takes the vale 1 when IS receive the lowest endowment, 0 otherwise. High Type takes the value 1 when IS receive the higher endowment, 0 otherwise. Initial inequality is the standard deviation of initial endowments and ranges from 0 (initial endowments are equal) to 52.91. Period takes values 1 to 12 according to the period of the experiment. Method takes the value 1 if the strategy method was used, 0 otherwise. *** denotes significance at the 1% level and ** at the 5% level.

Table 4: Hurdle Model Estimates of Behavioral Determinants (standard errors in parentheses)

to high-endowed stakeholders.

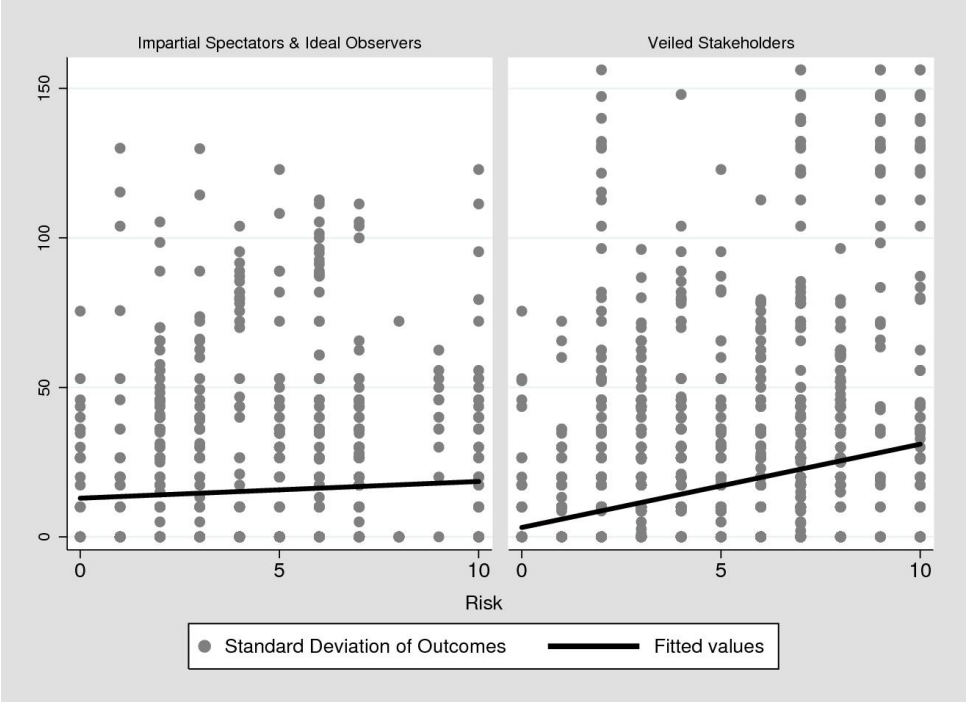

Figure 2: Influence of subjects' risk attitude on ex-post equality

Result 3. Risk attitudes affect veiled stakeholders' decisions. Risk-averse subjects promote ex-post equality. Risk-loving subjects propose more unequal distributions.

We find no relation between cooperativeness and allocation decisions. This speaks in favor of the hypothesis that the social preferences of participants do not affect individuals' decisions under impartiality conditions.

The Impact of Information

Thus far we have shown that risk attitudes may explain why VS deviate more often than IO from the ex-post egalitarian distribution. However, we still need to explain why IS and IO behave differently. In this section, we explore the only difference

between these two latter conditions: information about endowment positions.

Information about endowments may affect IS' decisions in two ways. First, the mere fact of receiving a low, medium or high endowment may lead spectators to behave differently. For instance, low-endowed spectators may support more equal distributions. Second, IS may favor spectators of their own type. We explore these two ideas consecutively.

Spectators' regressions in Table 5 control for spectators' positions (low, medium, high). We clearly show that IS do not condition on their position when they make an allocation. This is in line with what Becker and Miller (2009) find regarding stakeholders that have learned their position. Let us now focus on the question of whether IS favor stakeholders of their own position.

Figure 3 plots the average amount that IO and IS allocate to each of the stakeholder positions.[10] We compare the IO decisions (white bars) to the amounts allocated by the three spectator positions (black bars). Stakeholders receive considerably more from spectators of their own position. Thus, a low-endowed stakeholder receives on average 20ECU more from a low-endowed spectator than from an IO; a medium-endowed stakeholder receives on average 18ECU more from a medium-endowed spectator than from an IO and a high-endowed stakeholder receives on average 7ECU more from a high-endowed spectator than from an IO.

At an aggregate level, when IS deviate from an ex-post egalitarian distribution they seem to favor stakeholders of their own kind. To test whether this result is significant at the individual level, we compare the behavior of IS and IO using a random effect linear regression on the final amount different stakeholders' positions receive (Table 7). We find that spectators significantly favor stakeholders of their own type. The effect is strongest for the low-endowed spectators. This last result is very reasonable given that distributive preferences and favoritism point to the same direction only among low-endowed spectators.

[10]We only consider decisions that deviate from the ex-post egalitarian distribution.

	Low-Endowed Stakeholder	Medium-Endowed Stakeholder	High-Endowed Stakeholder
Low Spectator	23.853**		
	(11.375)		
Medium Spectator		15.724*	
		(8.290)	
High Spectator			17.161*
			(9.753)
Spectator	-6.381	-0.896	-12.650
	(9.541)	(5.978)	(7.784)
Initial Inequality	-0.832***	-0.417***	1.248***
	(.099)	(0.096)	(0.097)
Period	0.571*	-0.318	-0.232
	(0.324)	(0.310)	(0.316)
Method	4.745	-8.440	3.270
	(8.520)	(5.636)	(7.119)
Constant	97.935***	111.797***	91.271***
	(8.680)	(6.279)	(7.484)
Observations	395	395	395
Number of subjects	56	56	56

Note: Results are obtained by random effect regressions using the standard deviation of participants' allocations as the dependent variable. Stakeholder takes the value 1 if the decision comes from a Veiled Stakeholder, 0 otherwise. Spectator takes the value 1 if the decision comes from an Impartial Spectator, 0 otherwise. Initial inequality is the standard deviation of initial endowments and ranges from 0 (initial endowments are equal) to 52.91. Period takes values 1 to 12 according to the period of the experiment. Method takes the value 1 if the strategy method was used, 0 otherwise. *** denotes significance at the 1% level and ** at the 5% level * at the 10% level.

Table 5: Random effect linear regression estimates of final amounts given to stakeholders (standard errors in parentheses)

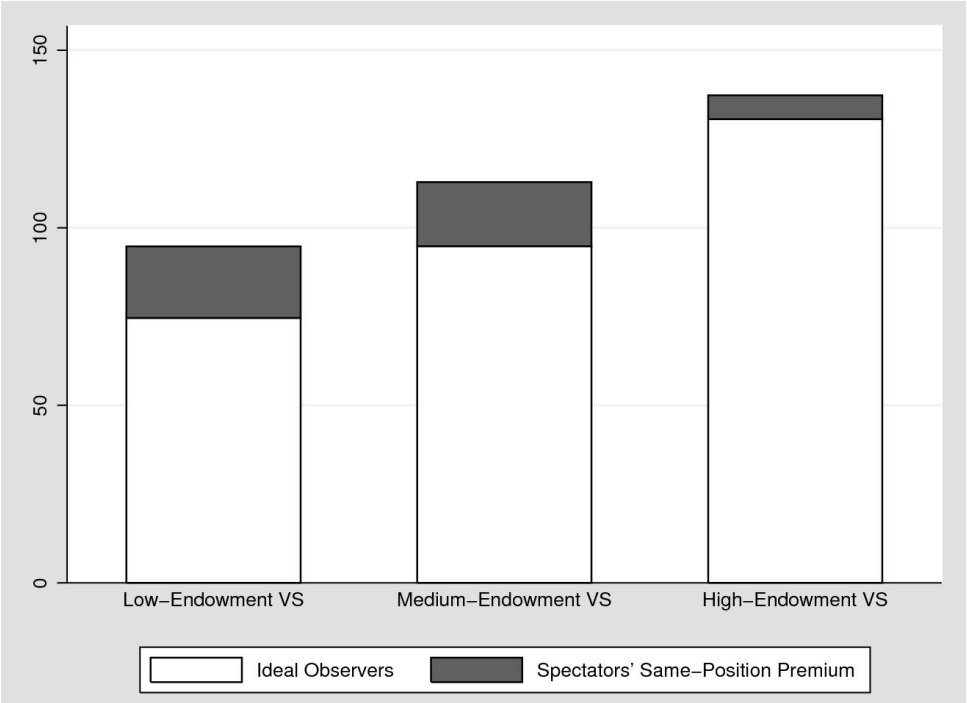

Figure 3: Amounts given to stakeholders by Ideal Observers vs. Impartial Spectators

Result 4. Spectators distribute significantly more to stakeholders of their own position than ideal observers. The effect is strongest for low-endowed spectators.

Summary of the Results

We find striking differences in the outcome distributions of three different impartiality inducing methods. Ideal observers that do not have a stake in the allocation problem nor information about their position in society propose significantly more egalitarian distributions than veiled stakeholders or impartial spectators.

To some extent, risk preferences seem to explain why participants that have a stake in the final allocation propose less egalitarian distributions than observers without a stake. On the contrary, cooperative preferences do not predict the behavior of any of the methods studied .

When we compare the behavior of two different types of detached third-parties, information about their position in society clearly matters. Unlike the ideal ob-

servers, impartial spectators that are informed about their position in society tend to favor stakeholders holding the same position. This result is strongest for low-endowed spectators.

Discussion

As democracy itself, impartiality is both a matter of procedures and results. Biased results discredit procedures, and poorly-designed procedures (e.g. those that exclude people unjustly or do not treat them as equals) discredit results. This article has experimentally shown that when rules of distributive justice are to be determined impartially, two procedural features are critical: the perspective (e.g. first- or third-person) and the amount of information decision-makers have at their disposal. Unlike conceptual work alone, a combination of conceptual and experimental work provides us deeper insight into these matters.

From a purely conceptual standpoint, the differences between the three impartial methods studied are clear. Procedures inspired by Rawls' veil of ignorance attempt to exploit the benefits of including the perspective of the stakeholders but, at the same time, exclude their narrow self-interest from the impartial decision process. The first-person perspective therefore ensures that those who have a stake will not delegate their decision to a non-involved third party.[11] Of course, the price to be paid is the absence of information that might be crucial to guarantee that the results will be fair once the veil is lifted. On the other hand, risk has a prominent influence on veiled procedures for a group of risk-averse stakeholders would take a very different decision from that of a group of risk-loving stakeholders.

Ideal observer and impartial spectator procedures have the advantage of using a larger amount of relevant information, but the disadvantage–at least in matters of distributive justice–of excluding stakeholders from a decision that will affect them

[11]First-person impartial procedures attempt to respect the liberal ideal that personal interests are better served by oneself.

and only them.

Pure conceptual analysis allows us to make predictions about the behavior of impartial decision makers. However, conceptual work alone would be incomplete. Experimental work is therefore a promising way of testing impartiality theories and their consequences in a lab environment before applying them to real life experiences (Konow 2003, 1191).

In the particular context of our experiment, in which an unjust and undeserved initial distribution is redressed, different impartial procedures may suffer from different biases. Both economic interests and risk attitudes may bias stakeholders' decisions. Similarly, identification with stakeholders may bias spectators' decisions. In principle, there are no reasons to suspect any bias affecting ideal observers. Insofar as they are 'ideal' they have no stake in the decision and do not belong to the 'society' of stakeholders. A priori, this factor short-circuits potential biased behavior.

If distributive justice demands that a set of resources arbitrarily distributed at the beginning of the experiment be equalized, veiled stakeholders and impartial spectators turn out to be less likely to comply with such demands by proposing an ex-post egalitarian allocation.

Stakeholders' behavior is more predictable than that of spectators in this regard. In line with previous experimental work, stakeholders' behavior behind the veil is influenced by risk attitudes in our experiment as well. Risk lovers leave everything to chance and act as gamblers that show no interest in fair results, but only in maximizing personal gains. In contrast, risk-averse stakeholders act as Rawlsian players that try to ensure a fair portion of the pie for themselves once the veil is lifted. In both cases the impartial procedure is heavily determined by stakeholders' psychological attitude towards risk. Thus, the results of any impartial mechanism based on uninformed stakeholders' decisions may depend on the psychological traits of the focus group members, which may bias the outcomes of this kind of procedures.

Neither risk nor economic interests affect ideal observers and impartial spec-

tators by definition. However, our results suggest that these two procedures differ in an interesting way. Whereas the behavior of ideal observers is unimpeachable from the viewpoint of impartial procedures and results, the same cannot be said of the behavior of impartial spectators. We find ideal observer decisions unbiased with respect to what we assume to be distributively just, whereas impartial spectator behavior was clearly biased due to identification with the stakeholders.

In spite of conceptually having an unreal capacity of decision (Firth 1952), it is not difficult to carry ideal observers to the laboratory. Real people completely detached from stakeholders' interests and fortune who have to take a decision in an artificial setting resemble ideal observers. In a sense, they are dispassionate, disinterested, and 'omniscient' because they have all the information available about the situation. Setting things that way, our ideal observers are shown to be a homogeneous group of well-informed real persons who are not affected by any concrete bias, such as risk, economic interests or identification.

Although they have been frequently confused with ideal observers, Smithian impartial spectators possess their own traits. While it was not our intention to test Adam Smith's theory of impartial spectatorship, Smith's theory provides the main intuition to design a third-person impartial mechanism. This mechanism resembles the impartial decision of real decision makers such as members of a jury, judges, or policy makers that belong to the same society as those stakeholders affected by their decision.

How can we then bring the impartial spectator to the lab? Interestingly, it is more difficult to replicate the Smithian spectator in the lab than the detached ideal observer. Ideal observer procedures seem to fit better into the artificial setting of a lab. The subtleties of Smithian spectator theory, the sympathetic decision of impartial spectators embedded in the situation they have to judge, might seem to be impossible to recreate in a laboratory setting (Konow 2008, 7). How could experimental subjects bring the case home to themselves, as Smith demands of spectators? How can they put themselves in an imaginary way in the place of

stakeholders?

Unlike ideal observers, we force impartial spectators to suffer the same unfair initial treatment as the stakeholders. This creates a sympathetic attitude by spectators towards the stakeholders or leads spectators to identify with them. We find spectators to favor stakeholders of their own type. Just as veiled stakeholders' decisions are biased by attitudes toward risk, impartial spectators' decisions may be biased by favoritism; a clearly anti-egalitarian behavior.[12]

The fragmentation of society, even of a society as artificial as our lab setting, could affect the decision of a supposedly impartial spectator that shows sympathy to a special part of society. That is an unintended consequence of an impartiality theory. We have experimentally demonstrated that sympathy–as in Smith's theory itself (Griswold 1999, 20)–could be an intrinsically unstable feeling because it can cause impartial results but also biased ones due to favoritism. We depart from other theoretical and experimental works that consider the Smithian impartial spectator the best procedure for obtaining impartial results (Konow 2008; Sen 2002).

Finally, the three impartial methods have proven to be rather independent from the social preferences of the individuals. When measured independently, cooperative traits do not play a significant role in individual's decisions. The decisions of impartial spectators, ideal observers and veiled stakeholders do not seem to be biased by these preferences. In contrast, when judging and designing real-life impartial procedures it is very important to take into account sympathy and risk attitudes to avoid possible biases.

[12]This favoritism can be partly explained by the Minimal Group Paradigm; a well studied phenomenon in social psychology (Tajfel 1970; Tajfel et al. 1971), which predicts intergroup discrimination based on arbitrary and virtually meaningless allocation into groups. However, we find that given the match of spectator and stakeholder type, the extent of favoritism is also moderated by the type itself.

References

Amiel, Y., F.A. Cowell., and W. Gaertner. 2009. "To Be or not To Be Involved: A Questionnaire-Experimental View on Harsanyi's Utilitarian Ethics." *Social Choice and Welfare* 32: 299-316.

Barry, B. 1995. *Justice as Impartiality*. Oxford, England: Oxford University Press.

Becker, A., and L. Miller. 2009. "Promoting Justice by Treating People Unequally: An Experimental Study." *Experimental Economics* 12 (4): 437-449.

Binmore, K. 1994. *Playing Fair*. Cambridge, Mass: MIT Press.

Cameron, C., and P. K. Trivedi. 2009. Microeconometrics using Stata. College Station, Texas: Stata Press.

Croson, R., and J. Konow. 2009. "Social preferences and moral biases." *Journal of Economic Behavior and Organization* 69: 202-212.

Dahl, R. 1989. *Democracy and its Critics*. New Haven: Yale University Press.

Dworkin, R. 1977. *Taking Rights Seriously*. Cambridge, Mass: Harvard University Press.

Firth, R. 1952. "Ethical absolutism and the Ideal Observer." *Philosophy and Phenomenological Research* XII: 317-345.

Fischbacher, U. 2007. "Zurich toolbox for ready-made economic experiments." *Experimental Economics* 10 (2): 171-178.

Frohlich, N., and J. A. Oppenheimer. 1992. *Choosing Justice*. Berkeley: University of California Press.

Gert, B. 1995. "Moral Impartiality." *Midwest Studies in Philosophy* XX: 102-127.

Gibson, J. 2008. "Challenges to the Impartiality of State Supreme Courts: Legitimacy "Theory and New-Style" Judicial Campaigns." *American Political Science Review* 102: 59-75.

Greiner, B. 2004. "An online recruitment system for economic experiments." In K. Kremer and V. Macho. Forschung und wissenschaftliches Rechnen 2003. GWDG Bericht 63. Ges. für Wiss. DatenverarbeitungK (pp. 79-93). Göttingen: Gesellschaft

fuer Wissenschaftliche Datenverarbeitung.

Griswold, C. 1999. *Adam Smith and the Virtues of Enlightenment.* Cambridge: Cambridge University Press.

Habermas, J. 1990. *Moral Consciousness and Communicative Action.* Cambridge, MA: MIT Press.

Hare, R.M. 1981. *Moral Thinking.* Oxford: Oxford University Press.

Harsanyi, J. 1955. "Cardinal welfare, individualist ethics and interpersonal comparisons of utility." *Journal of Political Economy* 63: 309-321.

Huber, G. A. and S. C. Gordon. 2004. "Accountability and Coercion: Is Justice Blind When It Runs for Office?." *American Journal of Political Science* 48: 247-263.

Konow, James. 2000. Fair shares and cognitive dissonance in allocation decisions. *American Economic Review* 90 (4): 1072-91.

Konow, J. 2003. "Which is the fairest one of all? A positive analysis of justice theories." *Journal of Economic Literature* XLI: 1188-1239.

Konow, J. 2008. "The moral high ground: An experimental study of Spectator Impartiality." Mimeo. http://myweb.lmu.edu/jkonow/Moral%20High%20Ground.pdf

Konow, J. 2009. "Is Fairness in the Eye of the Beholder? An Impartial Spectator Analysis of Justice." *Social Choice and Welfare* 33 (1): 101-127.

Liebrand, W.B.G. 1984. The effect of social motives, communication and group sizes on behavior in an n-person multi stage mixed motive game. *European Journal of Social Psychology* 14: 293-264.

Michelbach, P., J. T. Scott, R. E. Matland, and B. H. Bornstein. 2003. "Doing Rawls Justice: An Experimental Study of Income Distribution Norms." *American Journal of Political Science* 47: 523-539.

Min, Y. and A. Agresti. 2005. "Random effect models for repeated measures of zero-inflated count data." *Statistical Modelling* 5: 1-19

Mongin, M. 2001. "The impartial observer theorem of social ethics." *Economics and Philosophy* 17: 147-179.

Offermann, T., Sonnemans, J. and A. Schram. 1996. Value orientations, expecta-

tions and voluntary contributions in public goods. *Economic Journal* 106: 817-845.

Raphael, D. 2007. *The Impartial Spectator*. Oxford: Oxford University Press.

Rawls, J. 1971. *A Theory of Justice*. Cambridge, Mass: Harvard University Press.

Rawls, John. 2001. *Justice as Fairness: A Restatement*. Cambridge, Mass: Belknap Press.

Rothstein, B., and J. Teorell. 2008. "What Is Quality of Government? A Theory of Impartial Government Institutions." *Governance* 21 (2): 165-190.

Scott, J. T., R. E. Matland, P. A. Michelbach, and B. H. Bornstein. 2001. "Just Deserts: An Experimental Study of Distributive Justice Norms." *American Journal of Political Science* 45: 749-767.

Sen, A. 2002. "Open and Closed Impartiality." *The Journal of Philosophy* XCIX (9): 445-469.

Smith, A. 1976 [1759]. *Theory of the Moral Sentiments*. Oxford: Oxford University Press.

Sugden, R. 2002. "Beyond sympathy and empathy: Adam Smith´s concept of fellow-feeling." *Economics and Philosophy* 18: 63-87.

Tajfel, H. (1970): Experiments in intergroup discrimination. Scientific American, November 1970, 223, 96-102.

Tajfel, H., Billig, M.G., Bundy, R.P. and Flament, C. (1971): Social categorization and intergroup behavior. European Journal of Social Psychology, 1, 149-178.

Traub, S., C. Seidl, U. Schmidt, and M. Levati. 2005. "Friedman, Harsanyi, Rawls, Boulding -Or Somebody Else?." *Social Choice and Welfare* 24: 283-209.

Vickrey, W. S. 1945. "Measuring marginal utility by reaction to risk." *Econometrica* 13:319-33.

Warren M. E. 2004. "What does corruption means in democracy?" *American Journal of Political Science* 48: 328-343.