Economic Inquiry

AGENDA CONTROL AND RECIPROCITY IN SEQUENTIAL VOTING DECISIONS

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We study how reciprocity affects the extent to which a chair can exploit her control over an agenda if a committee votes sequentially on a known series of binary proposals. We show in a parsimonious laboratory experiment that committee members form vote trading coalitions favoring early proposals not only when the sequence of proposals is exogenously given, but also when a chair controls the sequence of proposals. Vote trading occurs even though chairs manipulate the agenda in their favor. Punishment for chairs exploiting agenda control is weak as chairs reciprocate support by others more frequently than nonchairs. (*JEL* C92, D71, D72)

I. INTRODUCTION

Committees frequently decide sequentially on series of independent binary proposals. In politics, committees vote sequentially on independent issues (such as funding for highways in region A, bridges in region B, and dams in region C).[1] In firms, committees decide on different projects sequentially. And in universities and public institutions, committees sequentially accept or reject applicants for several open positions. In all these situations, committee chairs who control the agenda are likely to attempt moving the outcome of the decision-making procedure in the direction of their own interest (frequently at the cost of others). Classical economic theory provides some guidance, under which voting mechanisms agenda manipulation is possible, but neglects that social preferences, may generate additional opportunities for agenda manipulation. This study highlights the important role of reciprocity (see also Dufwenberg and Kirchsteiger 2004; Falk and Fischbacher 2006; Levine 1998; Rabin 1993) in such voting decisions.

The extent to which a committee chair may manipulate an agenda can vary extensively, depending on the institutional framework as well as on the preferences of committee members. Chairs may determine what voting procedure is used, what subset of possible alternatives in addition to the status quo is voted on, they may be the only person who is able to add alternatives to an otherwise fixed set of proposals (i.e., have proposal power) or they may solely control the sequence in which independent proposals are voted on (see also Miller 1995). From a classical economic point of view, committee chairs can move the outcome of a decision-making procedure in the direction of their interest, in particular, if they have control over voting procedures or have proposal power (see Agranov, Cotton, and Tergiman 2016; Baranski 2016; Baranski and Kagel 2015; Baron and Ferejohn 1989; Cox and McCubbins 2005; Diermeier and Morton 2005; Frechette, Kagel, and Morelli 2005; Romer and Rosenthal 1978). Instead, if chairs solely control the sequence of a given set of independent binary proposals, there is less room for manipulation. In particular, such agenda control does not empower a committee chair, if members are rational and selfish and the committee votes on a series of binary proposals with a finite time horizon in which commitment devices are missing.

Experimental evidence suggests that controlling the sequence of proposals may actually empower committee chairs, if committee

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members are reciprocal.[2] Given an exogenously determined finite voting agenda, reciprocal committee members are able to form vote trading coalitions that make proposals early on the agenda more likely to be passed (Fischbacher and Schudy 2014). In turn, chairs may benefit from putting their favorite proposals early on the agenda. However, it is unclear whether such vote trading coalitions still emerge, if the agenda is determined endogenously. Can a committee chair exploit her agenda control in such an environment or do reciprocal committee members punish chairs who exploit their power over the agenda and thereby deter strategic agenda setting?

This article studies the above questions empirically; in a simple experimental voting game. In this game, vote trading, and, in turn, agenda manipulation, cannot occur when the committee is comprised of selfish members but vote trading can occur, if committee members are reciprocal. Thereby, the game allows for isolating the impact of reciprocity on agenda setting possibilities. In the experiment, a small committee decides on a series of binary proposals using simple majority rule and any subset of proposals can pass or fail. We contrast experimental treatments in which a committee chair can control the sequence in which the proposals are voted on with treatments, in which the agenda is randomly determined.[3] Additionally, we vary the information that is available about voting behavior. In a secret ballot treatment, committee members are only informed about the outcome of a vote. In an open ballot treatment, individual voting behavior is observable. The latter two conditions allow us to exogenously change the extent to which committee members can direct reward for support by others and thereby allow us to exogenously vary by how much the voting environment allows for trust and reciprocity to matter.

We find that vote trading coalitions based on trust and reciprocity emerge both, when the agenda is determined exogenously and endogenously. Even if committee chairs take advantage of their power to determine the agenda, vote trading coalitions that favor early proposals occur frequently. Thus, agenda manipulation turns out to be profitable, particularly when information on individual voting behavior is available. First, transparency provides accountability and thereby facilitates vote trading. Second, for nonchairs, the opportunity costs of not voting for the chair's proposal are higher because, with full information about individual votes, chairs can directly identify who did not support their preferred proposal.

While reciprocal committee members empower committee chairs by making vote trading coalitions based on trust and reciprocity feasible, they are also likely to reciprocate, that is, to punish or reward agenda manipulation. We find that nonchairs do not generally dislike agenda manipulation. Instead they attribute credit (or blame) to the chair according to their own benefits (or costs) from the chosen agenda. Beneficiaries of a chosen agenda discriminate in favor of the chair, that is, they vote more frequently for the chair's proposal. Members who suffer from the chosen agenda, instead, vote less frequently for the chair's proposal. This attribution of blame does occur mostly if individual votes are not observable and is not sufficient to stop chairs from choosing a sequence that favors their own proposal. Interestingly, we also find that chairs do not fully exploit their counterparts. While in the agenda setting decision, most of chairs behave selfishly, in the voting decision, chairs compensate their counterparts by rewarding support more frequently than nonchairs.

Overall, our results suggest that vote trading based on trust and reciprocity is more likely to occur in situations in which a committee chair determines the agenda. Compared to an exogenous agenda more proposals are passed. Two different channels can contribute to this result. First, the opportunity of a chair to set the agenda is likely to make vote trading opportunities more salient. In turn, more committee members may vote for proposals that precede the proposal they favor themselves, that is they trust more, when the agenda is determined by an agenda setter. Second, agenda setters may feel more responsible to reward support of others. Our results show that the increase in trust is dampened by negative reactions of committee members, whose proposals are placed last on the agenda, whereas reward behavior increases with an agenda setter.

II. RELATED LITERATURE

Agenda control has been considered a powerful tool in political decision-making. Tsebelis

2. Reciprocal relationships in real-world policymaking have been documented (see Stratmann 1992 or Dreher, Sturm, and Vreeland 2009), but their implications for agenda control are difficult to identify with observational data.

3. In the *Chair* conditions, we randomly select one participant in each group, who assumes and keeps the role of the committee chair for the whole experiment. Committee members are randomly rematched.

and Proksch (2007) even argued it was the use of agenda control which made the success of the European Convention in producing a constitutional treaty possible. Traditionally, agenda control has been studied in situations in which a voting body decides on different alternatives of a single decision (see e.g., early work by Gibbard (1973), Satterthwaite (1975), McKelvey (1976), Ordeshook and Palfrey (1988), or Dutta, Jackson, and Breton (2004).[4] While in such cases reciprocity plays a minor role because committee members' possibilities to punish or reward are rather restricted, our work focuses on situations in which trust and reciprocity are more likely to play a role. We provide evidence in which decision environments reciprocity is likely to generate additional possibilities for agenda manipulation and study whether committee chairs are willing and able to exploit such opportunities. As we focus on sequential voting on a series of binary proposals, our study relates closely to the work by Casella (2011). She studies sequential voting on a known series of binary proposals in a secret ballot. In contrast to our setup, committee members' preferences over proposals are private information in her setting. While her main focus is on whether storable votes provide welfare gains over simple majority voting, she sheds also some light on whether agenda control matters in voting on a series of binary proposals. She contrasts conditions in which either a random device or a committee chair determines the sequence of the known binary proposals (without knowing others' preferences about these proposals). In her experiment, the committee votes under simple majority rule (or with bonus votes). She finds that—due to the private nature of preferences over proposals—chairs use the agenda to transmit information about their priorities instead of exploiting agenda control to form vote trading coalitions. As preferences over proposals are private information and the committee votes in a secret ballot there is little room for vote trading based on trust and reciprocity. Our work focuses on decision situations in which preferences are common knowledge, and varies whether the committee votes in a secret or open ballot. Thereby, we show that committee chairs indeed manipulate agendas, in particular when individual votes are observable.

4. For surveys on agenda manipulation see also Cox (2006) and Cox and Shepsle (2007) as well as the survey on laboratory voting experiments by Holt (2006) and Palfrey (2009) which both include experimental studies on committee decision making and agenda control.

By studying agenda manipulation in a setting that allows for vote trading, we also complement the literature on vote trading and logrolling, going back the seminal contributions by Tullock (1959), Riker and Brams (1973), and McKelvey and Ordeshook (1980) and much more recent contributions by Hortala-Vallve (2011) and Casella and Palfrey (2019). The main difference between our contribution and the logrolling literature is that we analyze agenda setting possibilities, when formal commitment devices for vote trades, communication or negotiations are missing. Our results demonstrate that coalitions do occur even without commitment devices and communication, and that agenda manipulation does not impede vote trading based on trust and reciprocity but may even emphasize it.

III. EXPERIMENTAL DESIGN AND PROCEDURES

We build our study on the experimental voting game introduced by Fischbacher and Schudy (2014). In the experiment, three participants form a committee. The committee decides on three independent proposals. The committee votes sequentially on each of the three proposals using simple majority rule. Each proposal can be passed or failed. First, all committee members simultaneously cast their votes on the first proposal. Then, the committee is informed about the outcome of the vote. Second, each member casts her vote for the second proposal. The second vote is displayed and the group decides on the third proposal. Finally, the outcome of the third vote and the resulting payoffs are displayed. We induce symmetric and publicly known preferences over the proposals on the agenda.[5] Each proposal is strictly preferred by exactly one member of the committee. Table 1 shows how each proposal affects the participants' payoffs. Passing a preferred proposal yields six additional points for the beneficiary of the proposal, whereas the other committee members lose two points each. Thus, if a proposal is passed, the overall payoff will increase by two points. Not passing a proposal does not affect payoffs. Because only one participant of the group gains from each proposal, each

5. Thus, we abstract from additional sources which may affect coalition formation, for instance, the overrepresentation of own preference intensities when preferences are not public (see also Casella 2005; Engelmann and Grimm 2012; Jackson and Sonnenschein 2007; Myerson and Satterthwaite 1983).

TABLE 1
Proposals and Resulting Payoff Changes

	Proposal A	Proposal B	Proposal C
Member A	+6	−2	−2
Member B	−2	+6	−2
Member C	−2	−2	+6

TABLE 2
Treatments, Sessions, and Matching-Groups

Treatment	# Subjects	# Sessions	# Matching-Groups
RandomPartialInfo	54	2	3
ChairPartialInfo	48	2	3
RandomFullInfo	51	2	3
ChairFullInfo	72	3	4

single proposal is disadvantageous to a majority of the group. In turn, proposals can only be passed, if committee members expect others to reward support for unfavorable proposals. For the rest of the paper, we will call a committee member who benefits from the first proposal "first beneficiary" and committee members benefiting from the second (third) proposal "second (third) beneficiary."

A. *Treatments*

The focus of this study is on how a committee chair influences the decision-making process. In the *Chair* condition, we randomly select one participant in each group who assumes the role of the committee chair. The assignment takes place at the beginning of the experiment and subjects maintain their role as a chair during the whole experiment. In each period, one chair is matched with two nonchairs. The chair determines the sequence in which the proposals are put for vote in her committee before the first proposal is voted on and all committee members are informed about this.

Information on individual voting behavior is likely to affect trust and reciprocity among committee members, because it allows for the identification of supporters. We therefore study how a committee chair affects voting behavior under two conditions. In *ChairFullInfo*, the chair determines the agenda and the voting procedure is transparent (all votes are observable). In *ChairPartialInfo*, the chair determines the agenda but the ballot is secret, that is, only the outcome of the vote is displayed but not individual votes.

We contrast the *Chair* conditions (*ChairFullInfo* and *ChairPartialInfo*) with control conditions in which the agenda is determined randomly by the computer (*RandomFullInfo* and *RandomPartialInfo*), which was common knowledge. For these conditions, we use data from Fischbacher and Schudy (2014), in which subjects faced the identical situation but the sequence of proposals was determined randomly.[6] In all treatments, the sequence of proposals is displayed to the members of the committee before voting starts.

To control for learning effects and changes of voting behavior over time, participants voted on the three proposals in 12 periods (all payoff relevant). In each period, we randomly matched a chair with two nonchairs into a group of three participants. We use a random matching procedure, which assured that participants cannot infer any information on their current counterparts' individual voting behavior from past periods.[7] Thus, we exclude individual reputation building across periods. Each subject sat at a randomly assigned and separated computer terminal and was given a copy of instructions.[8] A set of control questions ensured the understanding of the game. If any participant answered questions incorrectly, the experimenter provided an oral explanation. No form of communication between subjects was allowed during the experiment.

B. *Procedures*

All data were collected at the LakeLab (University of Konstanz, Germany). The experiments took place between December 2008 and May 2009. Altogether we use data from 225 subjects collected in nine sessions. In our *Chair* sessions, 120 subjects participated. For the *Random* condition, we use data from 105 subjects who participated sessions from Fischbacher and Schudy (2014). Table 2 summarizes the number of subjects, sessions, treatments, and number of matching groups per treatment in detail. None of the subjects participated in more than

6. Note that our *Chair* treatments were run at the same time using the same recruitment procedure and the same subject pool.

7. Depending on the size of the sessions, we formed matching groups of at least nine participants.

8. A copy of translated instructions can be found in the Appendix S1, Supporting Information.

one session. Each session included exactly one treatment. Participants received a show-up fee of 2 euro ($2.80 at that time). The experiment took about 1 hour and 15 minutes, average income was about 12.50 euro ($17.50 at that time). The experiment was programmed and conducted using z-Tree (Fischbacher 2007). We recruited participants using the online recruiting system ORSEE (Greiner 2015). Participants were part of the LakeLab subject pool, consisting of undergraduate and graduate students of all fields of study.

IV. BEHAVIORAL PREDICTIONS

When all committee members are selfish, the sequence of proposals does not affect voting behavior. In a subgame perfect equilibrium with selfish committee members, members will vote all proposals down because each proposal is only preferred by a minority of the committee and commitment devices for vote trading are missing. However, when some committee members expect reciprocal behavior by their counterparts they may court for reward by voting on proposals preceding their own proposal on the agenda. Fischbacher and Schudy (2014) derive the following two propositions for *RandomPartialInfo* and *RandomFullInfo* with reciprocal agents.

PROPOSITION 1. *The approval of the second proposal and the approval of the third proposal is not more likely than the approval of the first proposal.*

PROPOSITION 2. *The approval of the third proposal is not more likely than the approval of the second proposal.*

The two propositions suggest that it is a weakly dominant strategy for the chair to place his preferred proposal first. However, the underlying assumptions of Proposition 1 are that committee members vote for their preferred proposal,[9] are reciprocal, and do not discriminate against specific committee members. Reciprocity ensures that a committee member does not support other members who did not support her proposal (if they had a chance to). The nondiscrimination assumption refers to the fact that a voter does not differ in her support for others' proposals, if she has not observed different voting behavior by these other members, where voting behavior is considered as different, if these members voted differently in otherwise equivalent situations (i.e., if they voted differently with respect to their own proposal or differently with respect to another beneficiary's preferred proposal). While we consider the latter assumption as natural if the sequence is determined randomly, it appears less convincing, if the committee chair determines the sequence in which proposals are voted on. We will thus test whether the following null hypotheses can be rejected:

Hypothesis 1: *With agenda control, the likelihood of acceptance of (a) the first and second proposal, as well as (b) the second and third proposal does not differ.*

Hypothesis 2: *Agenda setters place their proposals on all positions with equal frequency.*

We expect that reciprocal nonchairs may discriminate against the chair that controls the agenda. On one hand, reciprocal nonchairs may positively discriminate against the chair. First, Charness (2000) has shown that shifting responsibility from an outcome to an external authority reduces impulses toward generosity by alleviating responsibility. Vice versa, if a chair feels more responsible for the agenda because she chose it, the chair is likely to reward other committee members more frequently. In turn, nonchairs are more likely to support the chair's favored proposal. Second, the chair has more power than other committee members and may thus receive a higher expected payoff. This could prevent the chair from compensating low income periods by exploiting other committee members. Again, this reasoning provides a rationale for nonchairs to support the chair's proposal with a higher probability. Third, nonchairs may perceive specific agenda choices as kind and therefore vote more frequently for the chair's proposal. Finally, the mere fact that there exists an agenda setter may increase the salience of vote trading possibilities per se and thus lead to more support for proposals early on the agenda as compared to a random determination of the agenda.

On the other hand, reciprocal nonchairs may discriminate negatively against the chair by voting less frequently or not at all for the chair's preferred proposal. Either nonchairs do so because they consider agenda control per se as morally problematic, or because they perceive the chair's agenda choice as unkind. We consider a general negative perception of agenda control less

9. Note that this assumption is not explicitly mentioned in Fischbacher and Schudy (2014).

likely in our setup, because we do not provide any default sequence of proposals, that is, the experimental setup "forces" the chair to choose an agenda. Punishment based on the actual agenda choice seems instead more plausible, because different positions on the agenda imply different likelihoods of approval. We expect in particular beneficiaries of the third proposal on the agenda to punish the chair because third proposals are unlikely to be passed, in other words, the opportunity costs of not voting for the chair's proposal are lower for the third compared to the second beneficiary. Based on the arguments above, we plan to test whether the following null hypotheses related to the agenda setter's behavior and discrimination against agenda setters can be rejected:

Hypothesis 3: *Agenda setting possibilities do not affect (a) reward, that is the likelihood of voting for at least one subsequent proposal when the own proposal was accepted, and (b) trust, that is the likelihood of voting for preceding proposals*.

Hypothesis 4: *Chairs (a) reward and (b) trust other committee members as much as nonchairs*.

Hypothesis 5: *Chairs, who put their preferred proposal first on the agenda, receive the same support as beneficiaries of the first proposal in Random treatments*.

Hypothesis 6: *Chairs who put their preferred proposal first on the agenda, receive the same support by beneficiaries of the second and the third proposal*.

The implicit costs of punishing the chair are twofold. First, punishing the chair by not voting for her proposal is costly, because it reduces the likelihood of support for one's preferred proposal by the chair. Second, not voting for the chair's proposal (when it is placed first on the agenda) can cause additional distrust among nonchairs which reduces the likelihood of support by nonchairs.[10] Further, the costs of punishing are likely to depend on the voting institution. In *ChairFullInfo*, the voting procedure is transparent and those who do not support the chair are accountable. The chair can directly reciprocate by not helping them either. In *ChairPartialInfo*, chairs cannot directly identify committee members who do not vote for the chair's proposal. In turn, negative discrimination against the chair appears more likely to occur in *ChairPartialInfo*.

Positioning her own proposal first is a weakly dominant strategy for the chair as long committee members do not discriminate against specific committee members. However, if reciprocal members perceive such an agenda choice as unkind, chairs may gain from positioning their proposal second. If a chair decides to do so, it is clearly necessary to accompany this agenda choice by supporting for the first proposal. Assuming some chairs adopt the latter strategy, we expect higher efficiency if the chair puts her proposal second on the agenda.

V. RESULTS

We structure the results as follows. First, we investigate if early proposals are more likely to be accepted given the agenda is determined by a committee chair and show that vote trading coalitions emerge, even if a chair determines the agenda (Hypotheses 1 and 3). Second, we address the question of whether the committee chair manipulates the agenda (Hypothesis 2). Third, we shed light on chairs' voting behavior and show whether the chair exploits other committee members (Hypothesis 4). Fourth, we investigate nonchairs' behavior toward the chair (Hypotheses 5 and 6). Fifth, we discuss the optimality of the chair's decisions as well as the efficiency of the different institutions.

A. *Reciprocal Vote Trading*

Figure 1 illustrates individual acceptance rates of monetarily unfavorable proposals across treatments. Each column represents the share of members voting for a proposal that is monetarily disadvantageous to them.[11] Clearly, the earlier a proposal is voted on, the higher is the probability of its approval, also if a chair determines the sequence of the proposals. Regression Models 1 to 4 in Table 3 confirm this finding. Models 1 and 2 estimated the effects for the *Random* treatments. Model 1 for instance shows that *in RandomPartialInfo*, the probability of acceptance of the first proposal is estimated to be 27.6 percentage points higher than the probability of acceptance of the third proposal and the second proposal is 14.9 percentage points more likely

10. Mutual support for each other's proposal by two nonchairs requires a lot of trust on the side of the third beneficiary. If the third beneficiary observed the first proposal failing, she may distrust the second beneficiary, because the second beneficiary did not vote for the first proposal.

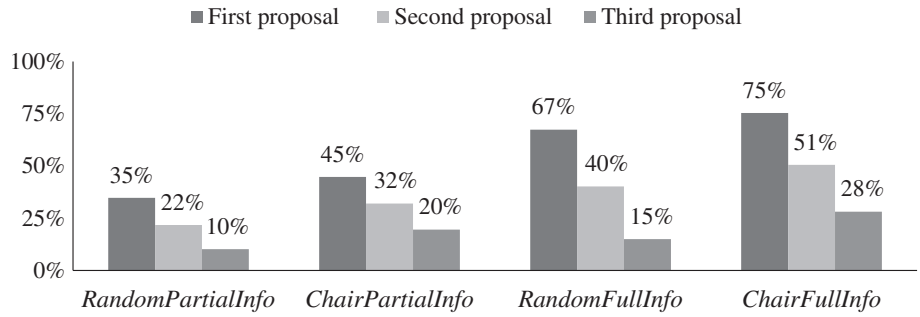
11. Subjects accept proposals which increase their own payoff in 99% of the cases.

TABLE 3
Probability of Acceptance

	Probability of Acceptance of Monetarily Unfavorable Proposals			
Dependent Variable	**(1)** ***Random PartialInfo***	**(2)** ***Random FullInfo***	**(3)** ***Chair PartialInfo***	**(4)** ***Chair FullInfo***
First proposal	**0.276*** **	**0.550*** **	**0.267*** **	**0.463*** **
	(0.012)	(0.053)	(0.037)	(0.052)
Second proposal	**0.149*** **	**0.312*** **	**0.142*** **	**0.232*** **
	(0.032)	(0.022)	(0.026)	(0.032)
Period	−0.006	−0.004	**−0.009*** **	**0.015*** **
	(0.007)	(0.003)	(0.002)	(0.005)
Observations	1,296	1,224	1,152	1,728
Pseudo R^2	0.059	0.153	0.043	0.119
Wald test	$\chi^2 = 12.27$	$\chi^2 = 37.95$	$\chi^2 = 81.93$	$\chi^2 = 163.37$
H0:First-Second proposal = 0	$p = .001$	$p = .000$	$p = .000$	$p = .000$

Note: Probit regression (marginal effects) with robust standard errors and clustering on matching groups. Baseline category is *RandomPartialInfo*.
***$p < .01$; **$p < .05$; *$p < .1$.
Bold values indicates $p < 0.10$.

FIGURE 1
Shares of Votes for Unfavorable Proposals (By Treatments)



to be accepted than the third proposal. The Wald tests in the last row of Table 3 show that differences in the probability of a vote for the first and the second proposal are significant. Models 3 to 4 show that also for the *Chair* treatments early proposals are significantly more likely to be accepted. Having an agenda setter thus does not deter vote trading per se. We conclude with Result 1, indicating that we can reject our null hypotheses (1a) and (1b):

RESULT 1. Irrespective of agenda control: The earlier a proposal is voted on, the higher is the likelihood for the proposal to be accepted.

Figure 1 suggests that both, committee chairs and information affect voting for others' proposals. Voting for others' proposals involves reciprocity (reward for others' support) and trust (voting for preceding proposals). We study next how agenda control and information on individual voting behavior affect reward behavior and then turn to trust among committee members. First note that reward for others' support is not directly comparable across treatments. In the *FullInfo* treatments, supporters can be identified and directly rewarded. In the *PartialInfo* treatments, reward is undirected and refers to voting for a subsequent proposal after one's preferred proposal was accepted. To make reward in *PartialInfo* and *FullInfo* treatments comparable, we focus on the share of committee members accepting at least one subsequent proposal given their own proposal was accepted. The second column of Table 4 shows that reward occurs more frequently in the Chair treatments. In

TABLE 4
Reward and Trusting Behavior across Treatments (Shares in Percent)

Treatment	**Reward Behavior** Share of First and Second Beneficiaries Voting for at least One Subsequent Proposal When Own Proposal Was Accepted	**Trusting Behavior** Share of Second and Third Beneficiaries Voting for the First Proposal		
		By Second and Third	By Second	By Third
RandomPartialInfo	24	35	47	22
N	204	432	216	216
ChairPartialInfo	38	45	58	31
N	231	384	192	192
RandomFullInfo	30	67	79	56
N	312	408	204	204
ChairFullInfo	44	75	86	65
N	488	576	288	288

TABLE 5
Reward and Trusting Behavior

Dependent Variable	**Reward Behavior** Vote for at least One Subsequent Proposal by First and Second	**Trusting Behavior** Vote for First Proposal		
		By Second and Third	By Second	By Third
RandomFullInfo	0.080	**0.277*** **	**0.252*** **	**0.301*** **
	(0.061)	(0.056)	(0.033)	(0.099)
ChairPartialInfo	**0.157** **	0.091	0.091	0.090
	(0.069)	(0.112)	(0.076)	(0.164)
ChairFullInfo	**0.215*** **	**0.363*** **	**0.333*** **	**0.392*** **
	(0.078)	(0.066)	(0.032)	(0.111)
Observations	1,235	1,800	900	900
Pseudo *R*-squared	0.020	0.094	0.097	0.096
#Clusters	13	13	13	13
p value of Wald test for H0: *ChairFullInfo*−*RandomFullInfo* = 0	0.089	0.145	0.160	0.256

Note: Probit regression (marginal effects) with robust standard errors and clustering on matching groups. Baseline category is *RandomPartialInfo*.
***$p < .01$; **$p < .05$; *$p < .1$.
Bold values indicates $p < 0.10$.

ChairPartialInfo, 38% of committee members accept at least one subsequent proposal, if their own proposal is accepted whereas this share amounts to 24% in *RandomPartialInfo*. Similarly, the share is higher in *ChairFullInfo* (44%) than in *RandomFullInfo* (30%). We confirm this result econometrically using Probit regressions. In the second column of Table 5, we estimate the probability to vote for (at least one) subsequent proposal after one's monetarily preferred proposal has been accepted. The regression reveals a significant positive effect of the chair treatment and a positive but statistically insignificant effect of the information condition on reciprocal behavior.[12] The Wald test in the last row confirms that the *ChairFullInfo* treatment yields a higher reward probability than *RandomFullInfo*. We thus reject Hypotheses (3a) and conclude with Result 2:

RESULT 2. Agenda control has a positive influence on reciprocity.

12. Information does not significantly affect the reward measure that is comparable across treatments (i.e., the likelihood of accepting at least one subsequent proposal given the own proposal was accepted). Nevertheless, as intuition suggests, information significantly increases behavior akin to tit-for-tat: The likelihood that a beneficiary of a passed proposal directly rewards her supporter(s) is significantly higher in *FullInfo* (using Probit regressions with dummies for *FullInfo* and *Chair* conditions and clustering on matching groups). However, this outcome measure relies on information that is not available to decision makers in *PartialInfo*. Here, beneficiaries only know whether their proposal was passed, but not who supported their proposal such that "direct reward" can only occur due to chance.

As a measure of trust, we focus on the acceptance of the first proposal by second and third beneficiaries.[13] Columns 3 to 5 in Table 4 show the share of supporters of the first proposal. The numbers suggest that agenda control and transparency increase trust. Using Probit regressions, we find however that only the latter difference is statistically significant. As can be seen in Table 5 (column 3 to 5), trust is higher in *FullInfo* treatments compared to *PartialInfo*. The regression model estimates the probability of voting for the first proposal by second and third beneficiaries. The baseline category is *RandomPartialInfo*. Compared to this baseline, *RandomFullInfo* yields an increase of 27.7 percentage points in the probability of a vote for the first proposal by second and third beneficiaries. *ChairPartialInfo* does not significantly increase the probability of a vote for the first proposal by second and third beneficiaries compared to the baseline (*RandomPartialInfo*). While *ChairFullInfo* yields an increase of 36.3 percentage points in the estimated probability compared to the baseline *RandomPartialInfo*, the coefficient is not significantly different from the coefficient of *RandomFullInfo* (as shown by the Wald-test result reported in the last row of Table 5).

While our *Chair* conditions significantly increase reward, we cannot reject that the *Chair* conditions do not affect trusting behavior (Hypothesis 3b). This does not necessarily mean that decision makers fail to backward induct. Changes in trusting behavior across treatments appear in line with changes in net benefits from trusting. While *Chair* conditions increase the expected net benefits from trusting in both information conditions, these benefits are negative with *PartialInfo*, such that trust does not pay in expectation. Vice versa, with *FullInfo*, the net expected benefits are positive (irrespective of the *Chair* condition).[14] In turn, even though *Chair* conditions increase net expected benefits, risk neutral committee members are not expected to trust differently when a chair determines the agenda. In contrast, *FullInfo* changes the expected net benefits from trusting from negative to positive values. And indeed, *FullInfo* increases trust significantly. Finally, in line with previous work, trusting behavior in conditions with negative expected net benefits can be explained by efficiency concerns or social preferences (see Chaudhuri and Gangadharan 2007; Cox 2004) whereas reluctance to always trust when expected returns are positive may result from risk or betrayal aversion (see Bohnet and Zeckhauser 2004).

B. Choice of the Agenda

Figure 2 shows the chairs' agenda choices over time for *ChairPartialInfo and ChairFullInfo*. In contrast to Hypothesis 2, most chairs place their preferred proposal first on the agenda. On average, committees vote on the chair's proposal first in 61% of the cases. Notably, in 31% of chairs chose to place their proposal second position. The chairs preferred proposal is rarely placed third (in 8% of the cases). Figure 2 further indicates that chairs learn that placing the own proposal first is profitable. Over time committees vote more and more frequently on the chairs proposal first. The regressions in Table 6 confirm this result. Notably, although we observe some learning, most chairs, who place their proposal first, behave consistently. In *ChairFullInfo*, 66.7% of chairs place their preferred proposal first in 7 or more out of 12 periods (50% do so in 10 or more periods). In *ChairPartialInfo*, 50% of chairs place their preferred proposal first in 7 or more out of 12 periods (37.5% do so in 10 or more periods). Chairs who place their proposal second are not only less frequent but also less consistent. In *ChairFullInfo*, 29.2% of chairs choose to place their preferred proposal second in 7 or more out of 12 periods (only 16.6% do so in 10 or more periods).

In *ChairPartialInfo*, 25% of chairs place their preferred proposal second in 7 or more out of 12 periods (none do so in 10 or more periods). Placing the proposal third is rare and only one chair (in *ChairPartialInfo*) decided to place her proposal third in 7 or more out of 12 periods

13. Note that treatment effects are robust to alternative specifications of the trust measure (e.g., using the acceptance of all preceding proposals). We report the acceptance of the first proposal to be able to show also differences in trust by the second and third beneficiary. As can be seen in Table 4 (columns 4 and 5), second beneficiaries trust more frequently in the first beneficiary than third beneficiaries. This difference is statistically significant (using Probit regressions with clustering on matching groups). We discuss behavior of the second and third beneficiary in more detail in Section D.

14. For the second beneficiary, the expected net benefit from accepting (as compared to not accepting) the first proposal amounts to −0.31 in *RandomPartialInfo*, −0.05 in *ChairPartialInfo*, 1.15 in *RandomFullInfo* and 2.40 in *ChairFullInfo*. For the third beneficiary, the expected net benefits are −1.04 in *RandomPartialInfo*, −0.48 in *ChairPartialInfo*, 0.59 in *RandomFullInfo*, and 1.58 in *ChairFullInfo*. The net expected benefits from trust in the second beneficiary amount to −0.97 in *RandomPartialInfo*, −0.57 in *ChairPartialInfo*, 0.22 in *RandomFullInfo* and 0.45 in *ChairFullInfo*.

FIGURE 2
Position of Chair's Proposal Over Time

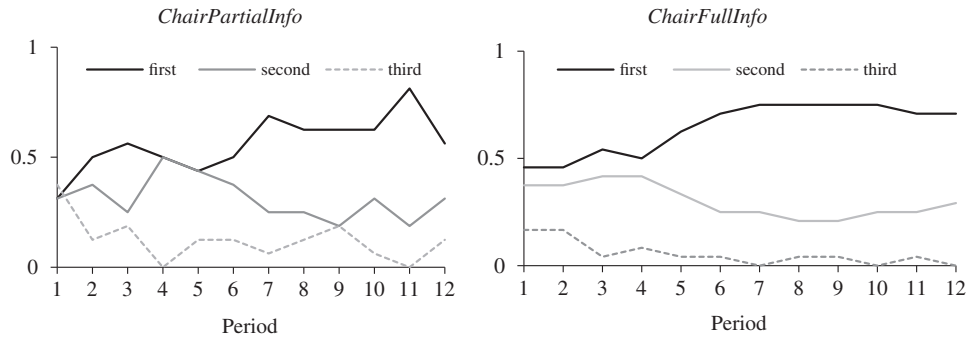


TABLE 6
Probability of Voting on the Chair's Proposal First

	Pr(Chair's Proposal Is Voted on First)		
Dependent Variable	***ChairPartialInfo***	***ChairFullInfo***	**Both *Chair* treatments**
ChairFullInfo			0.082
			(0.099)
Period	**0.026*** **	**0.029*** **	**0.028*** **
	(0.006)	(0.007)	(0.004)
# clusters	3	4	7
Observations	192	288	480
Pseudo *R*-squared	0.024	0.032	0.033

Note: Probit regression (marginal effects) with clustering on matching groups (3 in *ChairPartialInfo* and 4 in *ChairFullInfo*), Baseline category is *ChairPartialInfo*. Period captures the time trend, robust standard errors in parentheses.
***$p < .01$; **$p < .05$; *$p < .1$.
Bold values indicates $p < 0.10$.

(none did so in 10 or more periods). We conclude with Result 3:

RESULT 3. The majority of chairs place their preferred proposal first on the agenda (irrespective of information on individual voting behavior).

C. Chairs' Voting Behavior

We now turn to chair's voting behavior and address first the question of whether and how much chairs reward other committee members' support. To answer this question, we discuss reciprocity by chairs and nonchairs in the full and partial information treatments. In the full information treatments, we compare the probability of acceptance of the second (or third) proposal by beneficiaries of the first proposal given the second (third) beneficiary voted for the first proposal.[15] The first two rows of Table 7 show the shares of second (and third) proposals accepted by first beneficiaries, given the second (or third) beneficiary accepted the first proposal. We present chairs' reward behavior in the first column, nonchairs' reward behavior in the second column. As an additional benchmark, we report reward behavior by first beneficiaries in the *Random* treatments in the third column. In *ChairFullInfo*, there is no difference in direct reward by chairs and nonchairs with respect to beneficiaries of the second proposal on the agenda. About 48% of these proposals are supported by first beneficiaries. The share of third proposals accepted by chairs (44%) tends to be higher than

15. In full information, treatments we observe a typical tit-for-tat behavior. Subsequent proposals are mainly accepted when their beneficiary supported a preceding proposal. First beneficiaries vote for the second (third) proposal in only 4.8 (2.6) percent when they received no support by the second (third) beneficiary.

TABLE 7
Reward by First Beneficiaries (Chairs and Nonchairs), Shares in Percent

	Chair Treatments		
	By Chair	**By Nonchair**	***Random* Treatments**
FullInfo			
Reward for beneficiary of the second proposal	48	48	39
N	161	86	161
Reward for beneficiary of the third proposal	44	32	25
N	111	76	114
PartialInfo			
Reward for beneficiary of the second proposal	46	30	24
N	65	67	124
Reward for beneficiary of the third proposal	48	13	17
N	65	67	124

Note: In Full Information, treatments reward refers to the share of second (or third) proposals accepted by beneficiary of the first proposal when the beneficiary of the second (or third) proposal voted for the first proposal. In Partial Information, treatments reward refers to the share of second or third proposals accepted by the beneficiary of the first proposal when first proposal was approved by the committee (i.e., either second or third beneficiary, or both, voted for the first proposal).

TABLE 8
Reward for Second and Third Beneficiaries by First Beneficiary

	FullInfo		***PartialInfo***	
Dependent Variable	**(1) Vote for Second Proposal**	**(2) Vote for Third Proposal**	**(3) Vote for Second Proposal**	**(4) Vote for Third Proposal**
Chair treatment	0.081 (0.109)	0.056 (0.106)	**0.086**** (0.042)	−0.023 (0.068)
Vote by committee chair	−0.011 (0.086)	0.108 (0.097)	**0.149***** (0.054)	**0.334***** (0.092)
Positive experience in past periods	0.111 (0.109)	0.106 (0.163)	0.018 (0.108)	0.048 (0.077)
Observations	382	281	228	228
Pseudo *R*-squared	0.009	0.026	0.038	0.098

Note: Probit regression (marginal effects), robust standard errors in parentheses. In *FullInfo*, reward refers to the share of second (or third) proposals accepted by beneficiary of the first proposal when the beneficiary of the second (or third) proposal voted for the first proposal. In *PartialInfo*, reward refers to the share of second or third proposals accepted by the beneficiary of the first proposal when first proposal was accepted by the committee (i.e., either second or third beneficiary, or both, voted for the first proposal).
***$p < .01$; ** $p < .05$; * $p < .1$.
Bold values indicates $p < 0.10$.

the share of third proposals accepted by nonchairs (32%) and also higher than the share of third proposals accepted by first beneficiaries in *RandomFullInfo* (25%). Regression Models 1 and 2 in Table 8 show that the differences in behavior in the *FullInfo* treatments are however insignificant. In addition to the treatment and chair dummies, the regressions include a measure of positive past experience as a control variable. Positive experience is measured as the share of accepted own proposals until the current period. Positive experience does not affect reward significantly.[16]

The third and fourth row of Table 7 show the shares of accepted second and third proposals by first beneficiaries (given the first proposal was accepted) for the *PartialInfo* treatments. Chairs support later proposals more frequently than nonchairs (46 vs. 30% for the second proposal and 48 vs. 13% for the third proposal) and also more frequently than first beneficiaries in the *ChairPartialInfo* (17%). Regression Models 3 and 4 in Table 8 show that chairs in the *ChairPartialInfo* reward support significantly more than nonchairs.[17] Model 3 estimates chairs to be 14.9% points more likely to reward the second beneficiary than nonchairs in *ChairPartialInfo*. Model 4 estimates that the probability of reward by chairs to be 33.4 percentage points higher than the reward probability by nonchairs in

16. The results of Models 1 and 2 in Table 8 are robust to excluding the experience measure.

17. Excluding the positive experience variable in Models 3 and 4 does not affect Model 4. In Model 3, the coefficient of the *Chair* treatment is still positive but slightly smaller and statistically insignificant.

TABLE 9
Shares of First Proposals Voted for by Second (Third) Beneficiaries

Vote for first proposal	*Chair* Treatments: By Chair	*Chair* Treatments: By Nonchair	*Random* Treatments
By beneficiaries of the second proposal			
Full information	87	85	79
N	87	201	204
Partial information	72	52	47
N	60	132	216
By beneficiaries of the third proposal			
Full Information	63	65	56
N	16	272	204
Partial information	42	30	22
N	24	168	216

ChairPartialInfo. We thus reject Hypothesis (4a) and conclude with Result 4:

RESULT 4. Chairs reward support more frequently than nonchairs in PartialInfo.

Next, we turn to chairs' trusting behavior. Table 9 shows the frequency of support for the first proposal by second and third beneficiaries (separately for chairs and nonchairs). As an additional benchmark, the third column in Table 9 reports support for the first proposal by second and third beneficiaries in the *Random* treatments. Table 9 suggests that chairs trust more than nonchairs and they trust in particular more than subjects in the condition without agenda control. We test whether these differences are statistically significant using probit regressions. Model 1 in Table 10 shows that support for the first proposal is slightly more likely in *ChairFullInfo* than in *RandomFullInfo*.[18] However, chairs do not support the first proposal significantly more frequently than nonchairs. Again, we include our measure for positive experience (the share of own proposals passed in the preceding periods) as an explanatory variable.

RESULT 5. Chairs do not trust more frequently than nonchairs.

D. Reciprocity toward the Chair

We now turn to the question whether nonchairs discriminate against chairs. We focus on the situation in which the committee chair determines the agenda and investigate whether nonchairs support proposals preferred by chairs more or less frequently than proposals preferred by other nonchairs. As an additional benchmark, we compare support for the chair's proposal to support for proposals placed in the same position on the agenda in the corresponding *Random* treatment. Table 11 shows the frequency with which the chair's proposal is supported, if the chair places the own proposal first. Let us first focus on support for the first proposal by the second beneficiary. As can be seen in Table 11 (column 2 to 4), with *FullInfo*, the second beneficiary supports the chair's proposal more frequently than a nonchair's proposal that is placed in the same position on the agenda. With *FullInfo*, nonchairs who prefer the second proposal accept first proposals 87% of the time,

TABLE 10
Votes for First Proposal by Second Beneficiaries

Dependent Variable	Vote for first Proposal by Second Beneficiary: Full Information Treatments	Vote for first Proposal by Second Beneficiary: Partial Information Treatments
Chair treatment	**0.061****	−0.003
	(0.030)	(0.137)
Vote by chair	0.008	0.154
	(0.032)	(0.160)
Positive experience	**0.241****	**0.329*****
	(0.096)	(0.121)
Observations	451	374
Pseudo *R*-squared	0.061	0.039

Note: Probit regression (marginal effects), robust standard errors in parentheses. The regressions reveal that positive experience is the driving force for support of the first proposal. We thus cannot reject Hypothesis (4b) and conclude with Result 5.
***$p < .01$; ** $p < .05$; * $p < .1$.
Bold values indicates $p < 0.10$.

18. We refrain from reporting results from regression specifications in which the dependent variable is the vote for the first proposal by third beneficiaries, as chairs rarely chose to have their proposal vote on last.

TABLE 11
Votes for First Proposal by Nonchairs Preferring Second or Third Proposal (in Percent)

Vote by …	**Beneficiary of Second Proposal** *Chair* Treatment First Proposal Preferred by			**Beneficiary of Third Proposal** *Chair* Treatment First Proposal Preferred by		
	Chair	Nonchair	*Random* Treatment	Chair	Nonchair	*Random* Treatment
FullInfo	87	63	79	60	76	56
N	185	16	204	185	87	204
PartialInfo	54	46	47	19	48	22
N	108	24	216	108	60	216

if the first proposal is preferred by the chairs, as compared to 63%, if the first proposal is preferred by another nonchair.[19] In *RandomFullInfo*, 79% of first proposals are supported by second beneficiaries. Also with partial information, the share of first proposals supported by second beneficiaries tends to be higher if the first proposal is preferred by the chair. Regression Model 1 in Table 12 confirms that second beneficiaries are significantly more likely to support the first proposal, if this proposal is preferred by the committee chair. Vice versa, the third beneficiary supports the first proposal less frequently, if it is preferred by the agenda setter as compared being preferred by another nonchair. As can be seen in Table 11 (columns 4 to 6), with *FullInfo*, third beneficiaries on average support 76% of first proposals preferred by nonchairs whereas this share amounts to only 60% if the first proposal is preferred by the committee chair. In *RandomFullInfo*, treatment support for the first proposal by the third beneficiary amounts to 56%. This pattern is even more pronounced with partial information. In *RandomPartialInfo*, 48% of nonchairs support the first proposal whereas only 19% of third beneficiaries do so in *ChairPartialInfo*. In *RandomPartialInfo*, support for the first proposal by the third beneficiary amounts to 22%. Hence, we observe on average slightly more support for the first proposal in *ChairFullInfo* (and *ChairPartialInfo*) than in *RandomFullInfo* (and *RandomPartialInfo*),[20] but, within the *Chair* treatments, chairs who prefer the first proposal receive less support by nonchairs than first beneficiaries who have no agenda control; that is, third beneficiaries punish chairs. The difference in punishment by third beneficiaries is higher in the partial information treatment (19 vs. 48% compared to 60 vs. 76%) but, as shown in Section B, punishment does not stop chair's from positioning their preferred proposal first. Regression Model 2 in Table 12 confirms that, within the *Chair* treatments, third beneficiaries vote less frequently for the first proposal if the beneficiary is the committee chair. We thus reject Hypothesis 6 and summarize these findings in Result 6.

TABLE 12
Trust in First Beneficiary by Nonchairs Preferring the Second and Third Proposal

	(1) Trust in First Beneficiary by Second Beneficiary	**(2)** Trust in First Beneficiary by Third Beneficiary
FullInfo treatments	**0.309***** (0.050)	**0.339***** (0.061)
Chair treatments	**−0.122**** (0.059)	**0.218***** (0.080)
Chair is first beneficiary	**0.176***** (0.024)	**−0.186***** (0.041)
Positive experience	**0.310***** (0.070)	**0.497***** (0.076)
Observations	692	795
# Clusters (Matching groups)	13	13
Pseudo *R*-squared	0.145	0.187

Note: Probit regression with clustering on matching groups, robust standard errors (in parentheses)
***$p < .01$; ** $p < .05$; * $p < .1$.
Bold values indicates $p < 0.10$.

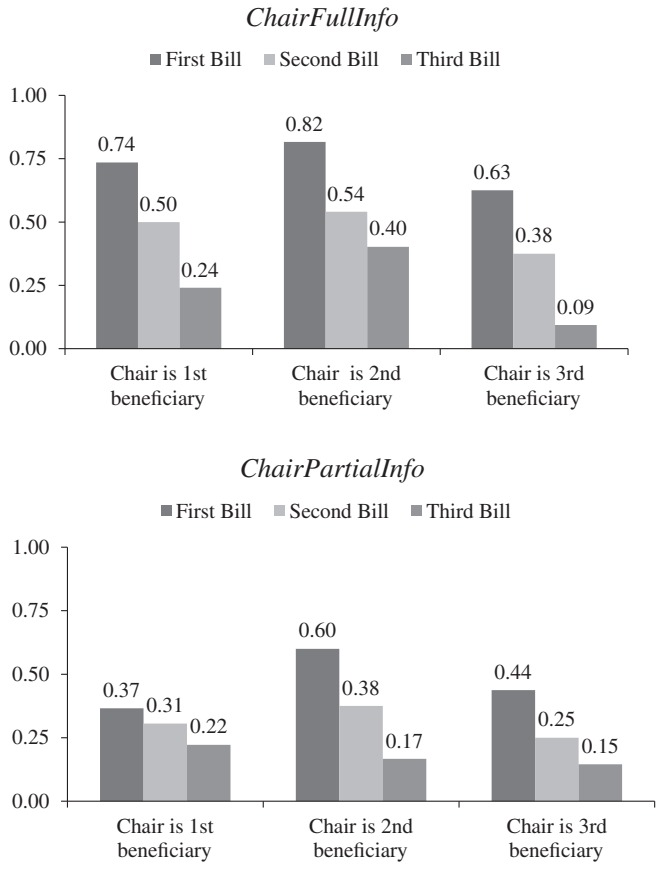
RESULT 6. If the chair positions her proposal first, second beneficiaries support the first proposal more frequently whereas third beneficiaries support the first proposal less frequently.

How do nonchairs treat the chair when the chair does not choose the first position? Is the chair additionally rewarded in this case such that it pays off for chairs to place their proposal

19. Note that in the latter case, the agenda setter's preferred proposal is last on the agenda, which happened on average in about 8% of the cases.

20. On average (pooling information treatments and votes by second and third beneficiaries), agenda setters receive statistically insignificantly more support when placing their preferred proposal first as compared to beneficiaries of the first proposal in the random treatments (marginal effect: 0.093 $p = .38$, probit regression analyses with clustering on matching groups, controlling for experience, not included in the paper). We thus cannot reject Hypothesis 5.

FIGURE 3
Shares of Votes for Unfavorable Proposals (According to Chair's Position)



second? Figure 3 shows the share of votes for unfavorable proposals, conditional on the position chosen by the chair. It shows that in the full information treatment, the first position yields the highest probability to pass a proposal followed by the second position and the third. In the partial information treatment, the second position yields about the same probability to receive support as the first position. However, if the chair chooses to place her proposal second, she has to support the first proposal, which results in a lower expected income.

E. Efficiency

Let us conclude the results section with some remarks on the efficiency effects of our treatments. As the number of proposals corresponds one-to-one to efficiency, we show the number of proposals accepted in Table 13. Transparency of the voting procedure has a positive and significant impact on the number of proposals passed.[21] In the *ChairFullInfo*, on average 2.16 proposals are passed, whereas in *ChairPartialInfo*, 1.53 proposals are accepted. In *RandomFullInfo*, 1.75 proposals are on average accepted whereas in *RandomPartialInfo*, only 1.14 proposals are accepted. Table 13 suggests that the *Chair* treatments also increase the number of proposals accepted. However, the increase in accepted proposals due to agenda control is

21. Results from a regression analysis with clustering on matching groups controlling for agenda control treatment (not included in the paper). As already indicated in Table 4, transparency reduces in particular voting outcomes, in which no proposal is passed. This outcome occurs only in about 3% in the full information treatments (*RandomFullInfo* and *ChairFullInfo*) whereas it occurs in about 31% of cases in the partial information treatments (*RandomPartialInfo* and *ChairPartialInfo*).

TABLE 13
Average Number of Proposals Passed According to Chair's Position (*SD*)

	***Chair* Treatments**		***Random* Treatments**	
Chair Is …	***ChairFullInfo***	***ChairPartialInfo***	***RandomFullInfo***	***RandomPartialInfo***
First beneficiary	2.11 (0.76)	1.44 (1.26)	—	—
N	555	324		
Second beneficiary	2.36 (0.80)	1.70 (0.99)	—	—
N	261	180		
Third beneficiary	1.69 (0.59)	1.46 (1.16)	—	—
N	48	72		
Total	**2.16 (0.78)**	**1.53 (1.17)**	**1.75 (0.81)**	**1.14 (1.06)**
N	864	576	612	648

only statistically significant, if the chair places her proposal second.[22] Chairs, who position their proposal second, give up a potential gain for themselves because it is only reasonable to place the own proposal second, if the chair also supports the first proposal. Chairs who position their proposals second do not only intend to increase their own but also others' profits. However, we find rather few of these types. In *ChairFullInfo*, less than a third of chairs choose to place their preferred proposal second in 7 or more out of 12 periods and only one sixth does so in 10 or more periods. In *ChairPartialInfo*, one-fourth of chairs place their preferred proposal second in 7 or more out of 12 periods and none do so in 10 or more periods. The majority of chairs place their proposal first: in *ChairFullInfo*, two-thirds of chairs place their preferred proposal first in 7 or more out of 12 periods (half of the chairs do so in 10 or more periods). In ChairPartialInfo, half of chairs place their preferred proposal first in 7 or more out of 12 periods (more than a third do so in 10 or more periods).

VI. CONCLUSION

How valuable is it for a committee chair to control the sequence in which a series of binary proposals is voted on? This article shows that the answer to this question crucially depends on how much room the specific voting institution leaves for trust and reciprocity to matter. While earlier work has shown that agenda setting possibilities hinge on the information about other committee members' preferences (see also Ordeshook and Palfrey 1988), the specific voting procedure of the decision-making process (e.g., forward vs. backward agendas, see Wilson 1986), and committee members' voting behavior,[23] our study highlights that reciprocity among committee members can yield additional agenda setting possibilities, as reciprocal vote trading occurs, even when a committee chair manipulates the agenda. The results show that committee chairs in our experimental voting game take trust and reciprocity among committee members into account when setting the agenda. Although chairs only control the sequence in which the binary proposals are voted on, they are able to shift the voting outcome in the direction of their own interest. Hence, the presumption that inequality in the ability to manipulate may be perceived as problematic (Satterthwaite 1973, 5–16) does not hinder agenda setters to partially exploit their position.[24] Committee chairs are not supported less frequently in general. Instead, they are able to manipulate the agenda. Only committee members suffering from the chosen voting sequence punish the chair (particularly when the voting procedure is secretive) whereas those who gain from the chosen agenda vote more frequently for the chair's proposal. Finally, chairs do not behave completely selfish but reward support by other committee members more frequently than nonchairs, in particular when the voting is secretive.[25]

22. Results from a regression analysis with clustering on matching groups controlling for agenda control treatment (not included in the article).

23. For example, the number of feasible outcomes depends on whether voters are sincere or sophisticated. Sophisticated voting is also closely related to vote trading (see also Brams and Riker 1973), which is the basis of our study.

24. Satterthwaite (1973, 5–16) names five reasons why agenda setting may be perceived problematic, among them the inequality in skills (some committee members are able to manipulate, others are not). For a detailed discussion of Satterthwaite's arguments see also van Hees and Dowding (2008).

25. This behavior may also reflect distributional preferences which have been observed, for example, in Baron-Ferejohn type of majoritarian bargaining experiments, where

Earlier work has shown that reciprocity plays a minor role if information about preferences is private (see Casella 2011). Our findings highlight that reciprocity matters for agenda manipulation if preferences are common knowledge, and even more so, if voting behavior is observable. These results yield important implication for the design of voting institutions. In particular, trust and reciprocity have to be considered if one discusses the merits of transparent voting institutions. In the experiment, transparency—in form of public information about individual voting behavior—increased the number of vote trades significantly. While such trades were efficient in our setup (by design), transparency may also reduce social welfare trough inefficient vote trades in alternative settings. Although the experiment was not designed to evaluate whether transparent voting institutions are superior in general, our results indicate that one major effect of transparency is an increase in committee members' trust in the reciprocity of their counterparts that translates into an increase in the extent to which the committee chair can exploit her control over the agenda.

With respect to reciprocal reactions to agenda manipulation, our results provide insights into how people attribute responsibility to a committee chair who controls the order in which a series of binary proposals is voted on. Committee members punish the chair's agenda choice but do not dislike agenda control per se. While committee members are well aware of the fact that they suffered or benefited from a chosen agenda (and thus they are aware about the fact that the agenda was manipulated), they may not perceive manipulation as particularly unfair in our setting. The chair had to choose some agenda, and the role of the chair was determined randomly. Previous research has shown that people care about fairness in procedures (see Akbaş, Ariely, and Yuksel 2019; Grimalda, Kar, and Proto 2016; Karni, Salmon, and Sopher 2008; Ku and Salmon 2013), and random procedures are often perceived as particularly fair. For instance, Ku and Salmon (2013) use various criteria of how advantageous and disadvantageous roles in an experiment are determined (random choice, meritocratic choice, arbitrary determination, or giving advantageous roles to uncooperative decision makers) and find that random determination of roles increases participants' willingness to approve Pareto improvements that favor players in advantageous roles. It is thus interesting to think about extensions of the current experimental setup, which may affect the likelihood of general resistance to agenda manipulation. For instance, our setting allows to study whether agenda setters who explicitly change a default agenda results in more negative reactions to agenda manipulations (as defaults may make committee members form references points about payoffs, see also Charité, Fisman, and Kuziemko 2015). Further, complementing recent literature on responsibility attribution in political decision-making (see Bartling, Fischbacher, and Schudy 2015; Duch, Przepiorka, and Stevenson 2015), it will be interesting to study how reciprocal reactions to agenda manipulation change if the committee chair "earned" her position or achieved the position in dubious ways. For instance, nonchairs may hold a committee chair less (or more) responsible, if the chair was elected (or bribed members to become the agenda setter). Further, in larger committees, it would be interesting to vary the institutional setting by allowing for abstention or requiring a quorum. Finally, future research may also investigate the role of transparency in voting contexts, in which committee members (and committee chairs) have re-election concerns and affected third parties can observe and react to the committee's decisions.

proposers do not fully exploit their agenda control by providing benefits to all committee members rather than to a minimum winning coalition.

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SUPPORTING INFORMATION

Additional supporting information may be found online in the Supporting Information section at the end of the article.

Appendix S1: Supporting information