Conformism of the Minorities: Theory and Experiment

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Abstract

Successful implementation of new rules and policies depends in part on the degree of popular support. The key ingredient in mounting a general consensus behind one alternative is the individual tendency to conform. What drives conformism? Is it lasting or is it temporary? Traditionally, the literature has focused on adaptive mechanisms which are based on social learning. Observing others' actions generates new information which may lead to a permanent change in own preference. However, this type of conformism requires that individual opinions are still evolving and there is room for new information to make a difference. What happens once opinions mature and people become more steadfast in their preferences? Is it then not possible to generate group-wise consensus? We explore an outstanding conjecture that even steadfast individuals may yield (temporarily) to the will of the majority if they are sufficiently caring and don't like to hinder others. We design a laboratory experiment that allows us to identify the two behavioral mechanisms (adaptive vs. steadfast). We find evidence that steadfast subjects conform because they care about others. We also show that they are more willing to conform if they have more power.

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1 Introduction

Democratic societies are ruled by majorities. Voting on a policy is only the first step in getting the job done. The second and equally important step is the implementation of the voting results. Implementing a policy may not be as easy as it seems. There are at least two complicating factors. The first is that people often disagree. In any collective choice problem, there is usually a larger group of supporters and a smaller group of opponents (or nay-sayers). The second factor is that policies in question often involve choice-externalities. If some individuals refuse to participate, then this might have a potentially strong negative impact on the whole group. Examples are plentiful: for instance, protection of national heritage and historical artifacts, building permits, common pool resource problems, pollution quotas, scheduling meetings in organizations, volunteering, or paying taxes.[1]

In the implementation stage, there is clearly a need for everyone to be on board and pulling in the same direction, especially if the choice-externalities are strong.[2] It becomes important that the nay-sayers come around and go along with the majority's decision. If not, then the group has to resort to coercive measures. For instance, they may hire more police or otherwise expand monitoring and sanctions. But this can be quite costly. Voluntary compliance is free and hence clearly the better alternative.

In this paper, we study whether and how people conform to policies chosen by majorities. We distinguish between two types of conformism: adaptive and steadfast caring. Adaptive conformism operates through channels of social learning that are well understood (Charness et al., 2019; Duffy et al., 2019, 2021; Fatas et al., 2018; Goeree and Yariv, 2015). If the outcome of the vote is informative of others' beliefs and preferences, then the individual will take that into consideration and could change her mind. In this way, finding out that one is in a minority of opponents may cause her to update her beliefs and comply with the policy in the implementation phase. The second type of conformism is steadfast caring. Here, one's beliefs and preferences are firm. A steadfast individual does not change her mind, but she may yield temporarily. The reason is that this person is well aware of the externalities her own choice would impose on others. If she cares about others' welfare,

[1] In all these instances, a small group of individuals acting contrary to the agreed upon policy or a rule may "poison the well" for everyone else.

[2] Some of the most extreme (but perhaps also the most illustrative) examples of situations that we have in mind are those where in case of conflict individuals typically seek a court injunction. For instance, protecting a thousand-year-old tree from being taken out to build a parking lot. It takes only a single person free-willingly cutting down the tree to make the whole matter settled forever.

she might not want to stand in the way of their wishes. She would rather yield, possibly even at a cost to herself.

The two types of conformism are observationally indistinguishable in cross-sectional data. They may, however, lead to very different outcomes in terms of preference distribution and social welfare in the dynamic context. Under adaptive conformism preferences are malleable. This is favorable to building general consensus and a group-wise compliance in the society. However, there is also a risk that the consensus is driven by a small group of vanguard voters who managed to influence the rest of the crowd. Even worse, once a person has conformed, they may dispose of their own private information, possibly causing an informational deadweight loss to the society. This may keep the group locked up in a suboptimal state for a long time. Steadfast conformism is in many respects more attractive, primarily because it does not involve loss of information. Steadfast conformists do not change their minds, but they do yield to majorities. This means that over time one would generally not expect to observe landslide elections, such as it would be the case if people's preferences are adaptive, but one would still see group-wise compliance. The risk with this type of conformism is in the fact that close elections are also more prone to errors that may arise, for instance, from fluctuations in voter turnout.

The key behavioral mechanism behind steadfast conformism is caring for others. This motive may be sensitive to how much power one has with respect to the ruling majority. What we mean by power here is the ability to overturn the group's choice and force one's own choice onto everyone else.[3] A nay-sayer would have full power if she gets to veto the group's decision and have no power if she never gets to unilaterally decide for the group. One can imagine a range of intermediate cases when she gets to decide only sometimes. For instance, an organization may decide to implement a policy that requires employees to get an approval for getting new supplies. If the supply room is not always locked, then employees with offices nearby have more power than employees on different floors or in different buildings. Thus, the power to choose is an environmental variable but to the extent that policy can affect the environment, it can be thought of as a policy variable as well.

Conceptually we anchor steadfast conformism in fairness theory and inequity aversion as pioneered by Fehr and Schmidt (1999) and further extended to include the ex-ante as well as the ex-post fairness concerns by Fudenberg and Levine (2012). A simple example illustrates the basic

[3]Again, think of the thousand-year-old tree. If the group wants to preserve the tree and there is no around-the-clock formal enforcement, any nay-sayer may come around and take out the tree.

idea. Suppose there are three individuals who have to choose one of two policies: A or B. Each policy implies a different distribution of individual payoffs for the three group members: $(1, 1, 0)$ for A and $(0, 0, 1)$ for B. Let us focus on the third individual. Suppose she can decide for the whole group with some probability, say p.[4] With purely self-regarding preferences, she would obviously prefer the option B. If she were only sensitive to the distribution of ex-post payoffs, then her preference between A and B would depend on how much she values her own welfare relative to the combined welfare of two other group members.[5] If her valuation of the group welfare is sufficiently high she would choose B; otherwise, she would choose A. But her choice would be independent of p. This is because the final distribution of payoffs is determined in the same way irrespective of whether she is more likely or less likely to choose.

But power may still play a role in person three's decision if she also cares about the distribution of the expected payoffs among group members. This was postulated by Fudenberg and Levine (2012) and experimentally studied by Brock et al. (2013) and Cappelen et al. (2013). The data show that people care as much (if not more) about ex-ante fairness as ex-post fairness. In our example, the power to choose affects ex-ante considerations. Assuming that the other group members always choose their preferred option A, person three can implement $(1, 1, 0)$ and $((1-p)1, (1-p)1, p)$ by choosing A and B respectively. This illustrates that the payoff distribution from choosing B is quite unequal if p is close to the extreme values 0 or 1 and it is more equitable when p is in the intermediate range, around $1/2$. When person three is averse to the ex-ante unequal payoffs, she is more likely to conform to the would-be choice of the majority (by choosing A) when she has more power to choose than when she has less power. This suggests an intriguing possibility that in scenarios where the group is more exposed to the actions of the nay-sayers, it may paradoxically be safer and less likely to be overturned thanks to the stronger incentives to conform.

Here, we study whether giving more power to steadfast but caring individuals increases their willingness to conform experimentally. At the heart of our design is a two-stage game in which subjects' preferences are correlated and they can first vote on a policy and then decide on whether to 'veto' the elected policy by hindering its implementation. We show that voting on one's preference is an equilibrium in this game and that players conform in the implementation stage if they are

[4] p then represents the power parameter.

[5] In Fehr and Schmidt (1999) it is assumed that one values own welfare more than the welfare of another person, but no such assumption is made with respect to the relationship between own welfare and that of a group of two or more individuals.

unsure about their preference or if they are steadfast but sufficiently caring. In the experiment, we distinguish between both motives by observing their voting behavior in a new group.

Subjects encounter seven binary choices from five different domains: lotteries, distributions of monetary prizes, but also less conventional real domains, such as dark or milk chocolate, postcards from different artists, or guesses about the Euro value of a jar full of coins. These choices were selected to span the range of choices where the average individual is expected to be more steadfast in her preference, i.e., in the case of choosing between dark or milk chocolate, or less steadfast (and more adaptive), such as, in the case of a coin-jar where there is a lot of scope to learn from others.

We observe that most subjects vote 'sincerely', i.e., in line with what they would choose individually for themselves. We identify that 20.5% conform although their own preferences have not changed, they still prefer their original choice in the new group. This share is significantly different from the benchmark switching rate in our design. Finally, we vary the probability of individual subjects to hinder implementation. In our low-power treatment, one of the group members is randomly selected and her choice gets implemented. In the high-power treatment, any one of the group members can veto the group's choice if not enforced in stage two. A nay-sayer clearly has more power by having a veto opportunity in the high-power treatment compared to the chance of being a random dictator in the low-power treatment. We find that more subjects conform when they have more power. The share of conformism raises from 16.5% in the low-power treatment to 48.1%. This increase of more than 100% is economically and statistically significant.

2 Contribution to the literature

Our paper adds to the literature streams on social preferences, conformist behavior, and procedural fairness. There is a large body of evidence documenting that, at least to some extent, humans have preferences regarding others (Bolton and Ockenfels, 2000; Fehr and Schmidt, 1999; Cox et al., 2007; Charness and Rabin, 2002; Cooper and Kagel, 2016). Most evidence of the role of social preferences can be observed in distributional settings. Typically dictators receive an amount of money, and because of not being fully egoistic, some dictators let go of some of the money to help a receiver. In our setting, subjects do not face such a monetary trade-off. Instead, subjects let go of utility by reducing the chance of implementing their preferred policy to increase the chance of the group's preferred policy. We contribute by showing that people adapt their behavior in a voting committee

setting[6] and conform because they care about the group.

For our purpose, group-wise strategy proofness is important for the voting behavior (Berga and Moreno, 2020). If subjects do not vote in line with their preferences, observing others becomes less informative, and social learning as well as steadfast caring becomes more complicated. For example Eckel and Holt (1989) observe that some subjects for strategic reasons do not follow their own preferences when voting between more than two options. Because of the simultaneous and anonymous voting procedure used in our study and the binary choice set, there should be no rational scope for strategic voting against own preferences. This is empirically supported by our data. Besides sincere voting behavior as a preliminary condition, the main focus of our study is not on voting behavior but on the reaction to the revealed votes.

This links to our contribution to the literature stream on conformism behavior. We can observe conformism with steadfast preferences driven by caring motives and disentangle this behavior from adaptive motives. Adaptive motives in which preferences within a decision problem are updated due to norms, social learning, or strategic reasons are already well understood (Charness et al., 2019; Duffy et al., 2019, 2021; Fatas et al., 2018; Goeree and Yariv, 2015). Closer to our paper are studies that are interested in non-adaptive conformism. Corazzini and Greiner (2007) study the role of social preferences in herding behavior. They find no correlation between social preferences elicited in a dictator game and the behavior in the herding game. This is not surprising as in the herding game there is no choice externality. Gioia (2017) and Gantner and Kerschbamer (2018) find that social interactions and group identity affects conformism behavior. This is in line with Steiger and Pelster (2020), who observe social interaction to increase imitating and bubble formation in a market setting, and with Mengel (2009), who observe a similar effect for public good contributions. Lahno and Serra-Garcia (2015) show that relative payoff concerns and conditional preferences affect conformism behavior. Cooper and Rege (2011) find that social regret can cause conformism. Similar Karakostas et al. (2021) suggests that a fear of missing out and having the least payoff may explain imitation in risk decisions. A possible explanation for conformism in all these studies is that subjects prefer to imitate the group because of relative payoff concerns. Thus, conformism observed in these studies is not driven by steadfast caring but by individual motives. In contrast, our study

[6]For a first characterization of committee voting, see Barberà et al. (1991). More recent literature typically examines different voting rules and how voting behavior is affected by the characteristics of the vote. For example, Levy (2007) explores the role of transparency in voting. Similarly, having sequential or non-anonymous voting rules could affect voting behavior (Barberà and Gerber, 2017; Maus et al., 2007; Freixas and Zwicker, 2009).

implements the decisions at the group level. Hence, whether to conform or not would not cause regret for not doing the same as the group. As the expected outcome is the same for all group members relative payoff concerns should not matter. Therefore, in our experimental data, steadfast conformism can only be explained by prosocial caring for the other group members.

Probably most related to our paper Bolton et al. (2015) test the effect of social responsibility and a tendency to conform. To simulate social responsibility, they implement a payoff effect of a deciding subject on a passive subject and let the decider in some treatment observe the passive risk choices. Social responsibility decreases risk-taking, and conformism is found to have a symmetric effect on whatever the other choice is. They also observe what we call steadfast caring conformism. Since this was not the paper's primary focus, they do not disentangle steadfast caring from adaptive or relative outcomes concerning conformist motives.

While all these studies examine conformism, the distinction between steadfast caring and adaptive conformism has not been made to the best of our knowledge. Our design is the first, which cleanly allows observing steadfast caring conformism.

Our next contribution is to the literature stream on procedural fairness. In their discussion, Bolton et al. (2015) call for the examination of the role of procedural fairness. We respond to their call by examining the effect of different levels of minority power on conformist behavior.

Implementing different levels of minority power can affect the perceived responsibility. A possible reason is that the probability of being pivotal is affected. The literature shows that responsibility and pivotality changes can affect decision-making in groups (Duch et al., 2015; Falk et al., 2020; Bartling et al., 2015). This hints that changing the minority power could also have an effect on conformism behavior.

However, as outlined by Sauermann and Beckmann (2019), designing a voting procedure and giving power to minority members is a non-trivial decision. Having no minority power, even a small majority could always dictate the minority. Implementing a vetoing power by a consensus rule, one person could be enough to block a proposal. This could cause lengthen negotiations. Indeed evidence on implementing a veto power seems to be mixed and context depending. Hohendorf et al. (2021) find a rather positive effect. They argue that the opposition's power to veto in institutional arenas such as second chambers can foster a more consensual relationship between the government and opposition parties in parliament. This hints that minorities less often try to hinder the majority's will.

In comparison, Kagel et al. (2010) using laboratory experiments explore the role of veto power on efficiency in bargaining situations. They observe slower decisions and an efficiency loss. They focus on how majority members react to minorities. In contrast, our study and Hohendorf et al. (2021) focus mainly on minority behavior.

Besides having a different focus, similar to Bolton et al. (2015), Kagel et al. (2010) also discuss how the rules of a game can shift the fairness perception. In line with our intuition, they describe that standard social-preference models do not account for this shift and that incorporating them can be exceedingly complex. They suggest that the modeling of social preferences should be tailored for specific strategic environments. This is in line with Fudenberg and Levine (2012), who argue that standard social preference models are designed for certain outcomes and can not account for ex-ante fairness concerns. They postulate that people also care about the distribution of the expected payoffs. This aligns with Brock et al. (2013) and Cappelen et al. (2013) who find evidence that people care as much (if not more) about ex-ante fairness as ex-post fairness. In our study, changing the minority power also affects the ex-ante fairness and our results can be interpreted as further evidence highlighting the role of ex-ante fairness perceptions.

3 Experimental Design and Predictions

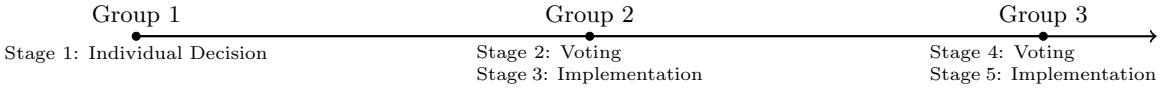
Being able to test how power affects the likelihood of minority members to conform because they care for their group, our design needs to fulfill some preliminary conditions. First, we need to be able to observe what subjects initially prefer. If we do not observe preferences but random behavior, there would be not much to learn. Next, we need observations of subjects who are in the minority and face the decision, of whether to conform or not to conform and, as we are interested in caring conformism, we need to be able to identify whether the observed conformism behavior is due to caring. Lastly, it is important to be able to vary the minority power.

Experimental Design

Our design consists of seven problems with five stages each. The problems are different types of decisions and consist of a choice between two policies. The selected policy is implemented on group level. The groups consist of three subjects and are rematched into new groups in stages 1, stage 2, and stage 4. After all decisions are made, three of the seven problems are randomly selected to be

payoff relevant. Within these selected problems, again one stage per type of decision was randomly selected to be payout relevant. As the problems reflect different kinds of decision problems hedging should not be an issue and having more payoff-relevant decisions increases the salience. For the stages, different rules are used to determine which policy to implement. It was clear to the student that any decision can have real consequences and can be relevant for the payoff. We will explain for each stage our design choices and how these help to be able to answer our research question.

Figure 1: Sequence of Moves



We want to know individual preferences of the subjects outside of a voting situation. Subjects are matched into groups of three and have to decide between two policies. Figure 1 illustrates the sequences of matching by stages in a problem. For the first stage, we use a random dictator mechanism in which one of the three decisions is randomly drawn to be relevant for the group. At this stage, no information about the group is given and only an incentive to choose the individual preferred policy exists. In stage two the subjects are matched into new groups. Without having any information about the new group, subjects are asked to vote between the same two policies. The majority within a group wins the vote and the elected policy is chosen to be relevant for this decision. In this stage, our design can fulfill two of the preliminary conditions. In comparison with stage 1, we are able to observe whether a subject switched from one policy to the other. As there is no information given, this is an indicator for subjects to have non-sincere preferences. Using these two stages as a control, we believe that if a subject in both stages voted for the same policy, we observe the initial preference of a subject. Thus, our design is able to observe individual preferences. Subjects can only conform if they know the preferences of their group and are in the minority. A natural way to learn this without inducing a demand effect is to let subjects vote and report the results of the vote and thereby the elected policy. After stage two, the subjects are aware of belonging to the minority. In the next step in stage three, the subjects remain in the group and the subject in the minority is facing the decision of whether to stick to the initially preferred vote and try to hinder the implementation of the popular vote or to switch. If a subject switches to the majority, we interpret this behavior as conformism. Not switching to the majority we interpret as

trying to block the implementation of the majority's vote[7].

The two treatments differ in how much power a minority member has to hinder implementation. In the low-power treatment, randomly one of the three decisions is selected to be relevant. Thus with a probability of a third a minority member, who is not switching to the elected policy, can hinder the implementation. In the high-power treatment, a minority member has full veto power and can always hinder the implementation of the elected policy. As a result, we are able to observe how minority power is affecting conformism behavior. Yet we can not disentangle between steadfast caring and adaptive conformism.

We want to see whether a subject has just temporarily yielded to please the preferences of this specific group or whether she has permanently changed her opinion. This is why we reshuffle groups and repeat the voting and implementation in new groups. In stage 4, the subjects are matched into new groups. Again they are asked to choose between the two policies. As no information about the new group is given and the simple majority rule is applied, we expect the subject to vote for their individual most preferred option. This allows us to make two important observations. By comparing this decision with the initial one, we can learn whether the subject changed her preferences. This allows us to distinguish between subjects who conformed because they adapted their preference and subjects who conformed because of a caring motive. Thus subjects, who after stage two, are in the minority, then in stage three conform to the majority, and in stage four move back to their initial decision, are identified as caring conformists. Whereas, subjects who do not move back to their initial decision after conforming can also be social learners. After stage 4, we can already observe all interesting behavior. We decided to add a fifth stage using the same decision rules as in the third stage to increase the symmetry of the design and to decrease potential demand effects.

Being able to disentangle between steadfast caring and adaptive conformism allows us to provide evidence for caring conformism being a relevant motive. Looking at the different levels of minority power between the treatments allows us to observe how steadfast caring and adaptive conformism motives are affected and whether a motive is more sensible or robust towards changes in power. Thus having a sufficient number of observations, our design is able to test our main research question.

Subjects face seven different problems in which they have to decide between two policies each.

[7]Combining the two stages of first voting between policies and then deciding on implementation, we call voting-implementation-game. Thus, the sequence can also be described as a random dictator decision followed by two voting-implementation-games.

The first two problems are choices between two lotteries. Problems 3 and 4 deal with fairness and efficiency, problems 5 and 6 ask for material preferences, and problem 7 is a guessing question. We decided to ask for these problems as we wanted to observe conformism behavior in different settings, such that the decision is not driven by a specific problem. The seven problems and the options can be found in Table 1.

Table 1: Policies and Type of Decision

Type of Decision	**Policy A**	**Policy B**
Risk I	Tail: 900 ECU for each Head: 100 ECU for each	400 ECU for each subject
Risk II	Tail: 1000 ECU for each Head: 0 ECU for each	300 ECU for each subject
Fairness/Efficiency I	1 subject gets 1800 ECU 2 subjects get 0 ECU	1 subject gets 0 ECU 2 subjects get 750 ECU
Fairness/Efficiency II	1 subject gets 0 ECU 2 subjects get 900 ECU	500 ECU for each subject
Material I	Dark chocolate	Milk chocolate
Material II	Art print 'blaue Fuchs'	Art print 'Schiff'
Guessing-jar	Subjects get 500 ECU if more than 14 EUR are in the jar	Subjects get 500 ECU if less than 14 EUR are in the jar

Predictions

We expect subjects to reveal their preferences in the dictator and voting stage. In these stages, subjects in our experiment cannot yet draw any inference from the choices of others. Unless a subject is indifferent between the two options, they should come to the same decision. In the implementation stage, subjects know the voting outcome and whether they are in the minority. We expect that subjects in the majority stick to their choice, while some subjects in the minority conform with the majority. Allowing for some randomness, more subjects should switch to the elected policy in the implementation stage than away from it.

Prediction 1. *In the implementation stage, more subjects will switch to the elected policy than away from it.*

Suppose that subjects conform not because they believe that the elected policy is their favorite

one but out of consideration for others. Then, these subjects would return to their preference revealed in the dictator and voting stage. Subjects may, of course, also switch back because they are indifferent.

Again, we want to allow for some randomness in choices. Theoretically, a single person switching back to her initial choice would already indicate that some people conform because they care. In the experiments, however, subjects may commit errors and switch randomly. We thus expect a naturally occurring switching rate that is not explained by theory. We identify caring conformism by observing whether a subject switches back to her initial preference. If both types of conformism exist, we expect the steadfast caring type to switch back to her initial preferred policy in stage 4 as the subjects are matched into new groups and the simple majority voting rules apply. This decision is comparable to the voting in stage 2 as in both decisions no information about the new group is known and the same decision rule is applied. Taking this benchmark, we predict the following.

Prediction 2. *If subjects conform because they care, the share of subjects who switch from one policy to the other between stage 3 and stage 4 is larger than the share between stage 1 and stage 2.*

If subjects only care about outcomes, we expect that the treatment has a null effect. Looking at adaptive conformism, subjects should not learn more or learn less depending on their power.

Prediction 3. *In the low-power treatment and the high-power treatment, we observe a similar share of adaptive conformism.*

In the presence of caring conformists, we also expect that more subjects are conforming if they have more veto power. This prediction could not be explained by any outcome-based model as these would predict no effect. However, the prediction follows our strong intuition that people also care for ex-ante fairness.

Prediction 4. *In the low-power treatment, we observe less steadfast caring conformism than in the high-power treatment.*

3.1 Implementation

Individuals came to the laboratory and were informed that they had to decide between two options on five stages, each over seven different decision problems. To ensure the understanding of

the instructions, subjects had to answer control questions. Additionally, a non-payoff relevant test round was played to get to know the decision screen before starting the experiment. The experimental sessions took place in the 'Business and Economics Research Laboratory' of the Paderborn University in 2018. The subjects were invited using ORSEE (Greiner, 2015) and the experimental software used was ztree (Fischbacher, 2007). The sessions lasted around 60 minutes, and the average monetary payment was 9,25 EUR. Additionally, the subject could receive a material payoff in the form of a chocolate bar and an art print in postcard format.

Table 2: Demographics across treatments

	Low Power	High Power
Female	67 (0.62)	72 (0.67)
Economics	45 (0.42)	38 (0.35)
Average Age	23.11	22.14
Observations	108	108

In total, eight sessions with 27 subjects in each session have been conducted. Each subject only participated in one session. All participants are registered in the subject pool and thus are familiar with economic experiments and laboratory rules. The average age is 22.6 years[8]. 139 subjects are female, 77 subjects are male, and 83 subjects studied their major at the faculty of economics and management. Comparing the treatments, we have slightly more female subjects and slightly fewer economic students in the high-power sessions compared to the low-power sessions. The proportion of subjects who are randomly assigned into treatments does not significantly differ by gender or studying economics (Pearson-χ^2 $p>.05$). However, the treatments significantly (Pearson-χ^2 $p<.01$) differ by age.[9] The significant difference in age is driven by one outlier only.

After all payoff-relevant decisions had been made, we asked for a voluntary subject to draw the three relevant decision types using seven numbered cards in a bag. In the next step, the subject using a dice draw which of the decisions within the type was selected to be payout relevant. If for these decisions a coin or a dice throw was needed, this was also done by a subject aiming to be as transparent as possible. To make sure the drawings were trusted, we displayed the live drawings

[8]In one session, the demographic information because of technical reasons was not saved on the individual level. Using the Orsee-pool information, we could reconstruct the demographics on the session level. We could not reconstruct the age.

[9]In the analysis we control for gender and age. Our results remain robust.

using a camera on a big screen, which everybody in the laboratory could see.

4 Results

After checking some prerequisites, we examine whether caring conformism is present in the data to then study whether they are susceptible to our treatment.

4.1 Prerequisites

If we want to study motives of conformism, we must be able to observe sufficiently many decisions in which people can conform and sufficient conformism behavior in these situations. Our data shows 306 decisions in which a subject is in the minority. We identify conformism behavior by having a clear preference for one option and switching against this initial preference when being in the minority. We decided to drop insincere voting decisions from the sample as we are unsure whether we would see switching due to conformism or indifference between the two options. Thus, we are looking at subjects who, in stages 1 and 2, voted for the same option and ended up being in the minority. After dropping insincere voting in our sample, we do observe 268 minority situations in the first voting implementation game[10]. All these subjects in the minority face the choice to conform when they can individually decide after the vote. Table 3 presents the number of minority situations and observed conformism by type of decision. For comparison, majority observations and the share of majority members who switched to the minority are listed.

Table 3: Number of Subjects in Minority and Conformism

Type of Decision	Majority	Switch to Minority	Minority	Switch to Majority
Risk I	144	15%	34	38%
Risk II	136	7%	42	36%
Fairness/Efficiency I	142	7%	37	43%
Fairness/Efficiency II	174	2%	21	29%
Chocolate	161	1%	48	17%
Postcard	157	0%	47	28%
Guessing-jar	153	1%	39	41%
Pooled Data	1.066	4.4%	268	32.4%

[10]In the parametric analysis, we do not drop the non-sincere observations but control for their effect. We conservatively decided to drop them for reporting observations and the non-parametric testing

Directly following from the nature of the experimental design, the number of observations varies between the type of decisions as we do not force subjects into minority situations. Looking at the number of minority observations and the 28.0% higher switching rate, we are confident that by using our design and analyzing our data, we are able to observe conformism behavior. Conducting a non-parametric McNemar-test, the switching behavior in the minority is highly significantly ($p<.001$) different from the majority behavior. Being aware of dealing with nonindependent observations, the difference could possibly be caused by heterogeneity on subject level. As non-parametric tests can not account for these effects, we additionally conduct a parametric regression analysis. Our findings remain robust. Similar to the descriptive observations also in the regression analysis, being in the minority significantly increases switching behavior by 27.6%. Thus, in our data, we observe a significant share of behavior, which we identify as conformism and Prediction 1 holds.

4.2 Identification of caring conformism

Next, we examine whether conformists are steadfast caring, or adaptive. As described in the experimental design section, we use the first decision in the second voting implementation game to disentangle between the two motives. Accounting for some randomness, the first voting stage is used as a benchmark. The decisions are comparable as in both decisions no information about the new group is known and the decision rule for both stages is majority voting. As a second possible benchmark, we report the share of switchers within the non-conformers. Figure 2 shows the share of switching in different voting stages.

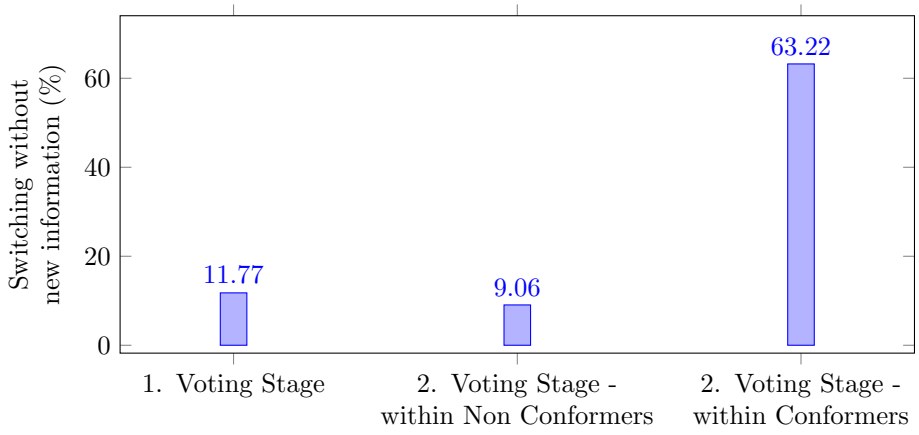


Figure 2: Switching Behavior in the Voting Stages

In the pooled data, we observe 55 steadfast caring data signatures. If a minority subject conformed in the first implementation stage, the likelihood that they will switch back in the next stage is with 63.22% enormously bigger compared to the likelihood of switching in the two benchmark cases with at most 11.77%.

To test whether the observations are driven by caring conformism and can not be explained by other factors, i. e. by insincere preferences, we run a regression controlling for individual fixed effects. For the analysis, we are looking at all decisions in which no new information is given. This is the case for the first decision in both voting implementation games. Thus, with 7 decision types and 2 interesting decisions per type, we observe 3024 interesting decisions.

Table 4: Regression on Switching without new Information

	Switching in the voting stage	
Insincere preferences	0.121**	(3.01)
Increased switching for later stage	0.0222*	(2.15)
Switch to majority in stage 3	0.308***	(3.92)
Constant	0.0897***	(5.07)
Observations		3024

Note. t statistics in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Identifying why we observe a higher switching rate, we control for an increased tendency to switch in later stages, insincere preferences, and account for a baseline switching rate. All of these factors can not explain our observation. In the regression after controlling for the already mentioned factors, 30.8% of the increased switching behavior can be attributed to having conformed to the majority in the stage before. This effect is highly significant (p<0.001) and Prediction 2 holds.

Result 1. *In our data, we observe a significant share of steadfast caring conformism behavior.*

4.3 Effect of minority power

Recall that we predicted caring conformists to respond to minority power. Having observed a sufficiently large number of caring conformists means that we can observe a treatment effect. Comparing the share of conformism behavior between the treatments in Figure 3, we can observe that in the high-power treatment more conformism can be observed.

In the low-power treatment, we observe a share of 16.54% and in the high-power treatment of

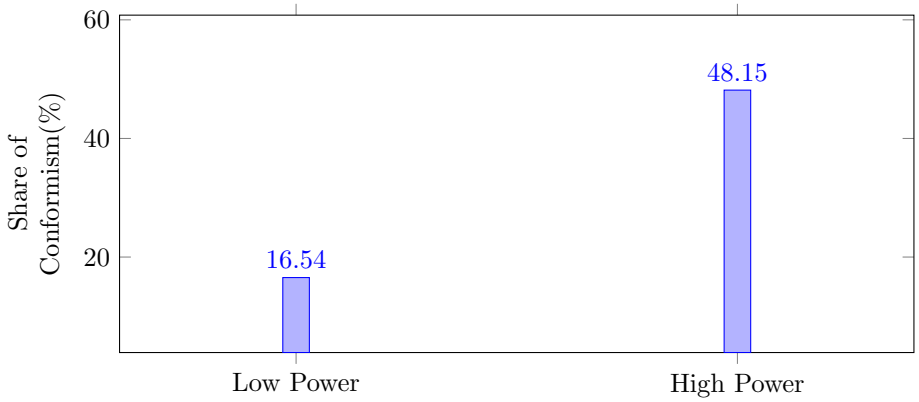


Figure 3: Effect of Power on Conformism Shares in the Minority

48,15% conformism behavior within the minority. This difference is mainly driven by the effect on caring conformists. In the low-power treatment, we can only report 5, whereas in the high-power treatment, we can report 50 caring conformists observations. In comparison, adaptive conformism with 15 observations in the high-power treatment and 17 in the low-power treatment seems to be nearly not affected by power. This already hints that a higher degree of power promotes caring conformism behavior and curbing reduces caring conformism.

Table 5: Regression on the Effect of Power on Caring Conformism

	Caring Conformism	
High Power Treatment	0.339***	(5.89)
Risk I	0.0999	(0.98)
Risk II	−0.0406	(−0.42)
Fairness/Efficiency I	0.00203	(0.02)
Fairness/Efficiency II	−0.0496	(−0.41)
Chocolate	−0.180	(−1.97)
Postcard	−0.0594	(−0.64)
Constant	0.140*	(2.01)
Observations		243

Note. t statistics in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

In Table 5, using a fixed effect regression with error terms clustered on individual level, we test the significance level of the treatment effect. We only look at observations in which the decider was

in the minority and voted sincerely in the first rounds.[11] We observe that in line with Prediction 4 with a higher probability by 33.9 percentage points, subjects in the high-power treatment are significantly more likely to behave as caring conformists. In comparison, the treatment has no significant effect on adaptive conformism and Prediction 3 holds.

Result 2. *In our data, minority power increases the share of steadfast caring conformism behavior.*

5 Discussion

Our interpretation of the results is that giving power to people in the minority promotes their social responsible behavior. This might be especially interesting as it hints that i.e. integrating people with other opinions and even giving them responsibility, can positively effect their behavior to support the implementation of the majority's will. Compared with enforcement, voluntary conformism can be seen as a more favored approach. Changing the point of view, and not giving power to the minority members can be critical and cause behavior that aims to hinder the implementation of the majority's will. In an extreme case taking someone's power away could not only reduce social responsible behavior but reciprocally even could cause anti-social destructive behavior. Thus, we believe that whenever minority members can be critical to implement an elected policy one should consider that giving more or less responsibility to the minority can potentially hinder or promote the implementation of a policy.

References

Barberà, Salvador and Anke Gerber, "Sequential voting and agenda manipulation," *Theoretical Economics*, 2017, *12* (1), 211–247.

_ **, Hugo Sonnenschein, and Lin Zhou**, "Voting by Committees," *Econometrica*, 1991, *59* (3), 595–609.

Bartling, Björn, Urs Fischbacher, and Simeon Schudy, "Pivotality and responsibility attribution in sequential voting," *Journal of Public Economics*, 2015, *128*, 133–139.

[11] We also conducted an analysis without excluding insincere voting behavior. The results are robust

Berga, Dolors and Bernardo Moreno, "Preference reversal and group strategy-proofness," *Economics Letters*, 2020, *196*, 109493.

Bolton, Gary E. and Axel Ockenfels, "ERC: A Theory of Equity, Reciprocity, and Competition," *American Economic Review*, March 2000, *90* (1), 166–193.

Bolton, Gary E, Axel Ockenfels, and Julia Stauf, "Social responsibility promotes conservative risk behavior," *European Economic Review*, 2015, *74*, 109–127.

Brock, J Michelle, Andreas Lange, and Erkut Y Ozbay, "Dictating the risk: Experimental evidence on giving in risky environments," *American Economic Review*, 2013, *103* (1), 415–37.

Cappelen, Alexander W., James Konow, Erik Sörensen, and Bertil Tungodden, "Just Luck: An Experimental Study of Risk-Taking and Fairness," *American Economic Review*, June 2013, *103* (4), 1398–1413.

Charness, Gary and Matthew Rabin, "Understanding social preferences with simple tests," *The Quarterly Journal of Economics*, 2002, *117* (3), 817–869.

_ , Michael Naef, and Alessandro Sontuoso, "Opportunistic conformism," *Journal of Economic Theory*, 2019, *180*, 100–134.

Cooper, David J and John H Kagel, "4. Other-Regarding Preferences," in "The Handbook of Experimental Economics, Volume 2," Princeton University Press, 2016, pp. 217–289.

_ and Mari Rege, "Misery loves company: Social regret and social interaction effects in choices under risk and uncertainty," *Games and Economic Behavior*, 2011, *73* (1), 91–110.

Corazzini, Luca and Ben Greiner, "Herding, social preferences and (non-) conformity," *Economics Letters*, 2007, *97* (1), 74–80.

Cox, James C., Daniel Friedman, and Steven Gjerstad, "A tractable model of reciprocity and fairness," *Games and Economic Behavior*, 2007, *59* (1), 17 – 45.

Duch, Raymond, Wojtek Przepiorka, and Randolph Stevenson, "Responsibility attribution for collective decision makers," *American Journal of Political Science*, 2015, *59* (2), 372–389.

Duffy, John, Ed Hopkins, and Tatiana Kornienko, "Lone wolf or herd animal? Information choice and learning from others," *European Economic Review*, 2021, *134*, 103690.

_ , _ , _ , and Mingye Ma, "Information choice in a social learning experiment," *Games and Economic Behavior*, November 2019, *118*, 295–315.

Eckel, Catherine and Charles A Holt, "Strategic voting in agenda-controlled committee experiments," *The American Economic Review*, 1989, pp. 763–773.

Falk, Armin, Thomas Neuber, and Nora Szech, "Diffusion of being pivotal and immoral outcomes," *The Review of Economic Studies*, 2020.

Fatas, Enrique, Shaun P Hargreaves Heap, and David Rojo Arjona, "Preference conformism: An experiment," *European Economic Review*, 2018, *105*, 71–82.

Fehr, Ernst and Klaus M. Schmidt, "A Theory Of Fairness, Competition, And Cooperation," *The Quarterly Journal of Economics*, August 1999, *114* (3), 817–868.

Fischbacher, Urs, "z-Tree: Zurich toolbox for ready-made economic experiments," *Experimental economics*, 2007, *10* (2), 171–178.

Freixas, Josep and William S Zwicker, "Anonymous yes–no voting with abstention and multiple levels of approval," *Games and Economic Behavior*, 2009, *67* (2), 428–444.

Fudenberg, Drew and David K Levine, "Fairness, risk preferences and independence: Impossibility theorems," *Journal of Economic Behavior & Organization*, 2012, *81* (2), 606–612.

Gantner, Anita and Rudolf Kerschbamer, "Social interaction effects: The impact of distributional preferences on risky choices," *Journal of risk and uncertainty*, 2018, *56* (2), 141–164.

Gioia, Francesca, "Peer effects on risk behaviour: the importance of group identity," *Experimental Economics*, 2017, *20* (1), 100–129.

Goeree, Jacob K and Leeat Yariv, "Conformity in the lab," *Journal of the Economic Science Association*, 2015, *1* (1), 15–28.

Greiner, Ben, "Subject pool recruitment procedures: Organizing experiments with ORSEE," *Journal of the Economic Science Association*, 2015, *1* (1), 114–125.

Hohendorf, Lukas, Thomas Saalfeld, and Ulrich Sieberer, "Veto power fosters cooperative behaviour: institutional incentives and government-opposition voting in the German Bundestag," *West European Politics*, 2021, *44* (4), 921–945.

Kagel, John H, Hankyoung Sung, and Eyal Winter, "Veto power in committees: an experimental study," *Experimental Economics*, 2010, *13*, 167–188.

Karakostas, Alexandros, Giles Morgan, and Daniel John Zizzo, "Socially Interdependent Investment," *Available at SSRN 3799854*, 2021.

Lahno, Amrei M and Marta Serra-Garcia, "Peer effects in risk taking: Envy or conformity?," *Journal of Risk and Uncertainty*, 2015, *50* (1), 73–95.

Levy, Gilat, "Decision making in committees: Transparency, reputation, and voting rules," *American economic review*, 2007, *97* (1), 150–168.

Maus, Stefan, Hans Peters, and Ton Storcken, "Anonymous voting and minimal manipulability," *Journal of Economic Theory*, 2007, *135* (1), 533–544.

Mengel, Friederike, "Conformism and cooperation in a local interaction model," *Journal of Evolutionary Economics*, 2009, *19*, 397–415.

Sauermann, Jan and Paul Beckmann, "The influence of group size on distributional fairness under voting by veto," *European Journal of Political Economy*, 2019, *56*, 90–102.

Steiger, Sören and Matthias Pelster, "Social interactions and asset pricing bubbles," *Journal of Economic Behavior & Organization*, 2020, *179*, 503–522.

6 Appendix

Translated Instructions: High Power Treatment

Instructions

Welcome to our experiment! These instructions are the same for all participants. During the experiment any communication with other participants is prohibited. Please switch your mobile phone off until the end of the experiment. If you have any questions, please raise your hand. We will come to you and answer your question. Please ask the question so that it cannot be overheard by other participants.

For the participation in this experiment you receive a show-up fee of 2.50€ in any case. In addition, you receive further payoff, which depends on your decisions and that of other participants and randomness. All payments will be described in Taler. At the end of the experiment, Taler are converted at the rate of 1 Taler = 1 Cent and paid out to you. Your decisions in the experiment are anonymous and will only be used for scientific purposes.

In this experiment you form a group of three with two other participants in this room. Each member will be assigned one of three roles: left, middle or right, which are displayed on your screen. (These roles are not related to your seating position in the laboratory.)

Each group decides between two proposals: "proposal A" and "proposal B". All proposals have consequences for all members of the group. The proposal either affects how many Taler you get or which object receive at the end of the experiment, for example a pen. Here are some examples for possible proposals:

1st Example: "The person LEFT receives an apple. The person MIDDLE and RIGHT receive nothing. "

2nd Example: "Each group member gets 500 Taler."

3rd Example: „A virtual coin will be thrown. If it shows heads, each member gets a banana. If it shows tails, each member gets an apple.

Two proposals A and B of this type will be displayed to you.

Proposal A: Every group member receives a banana.

Proposal B: Every group member receives an apple.

Sequence

The experiment consists of 7 rounds. In each round, there are two new proposals A and B. The decision about these proposals will be reached within three completely different groups. In the first group, each member has to decide individually. The second and third group has to decide twice. In total, there will be 35 decisions. How these decisions are made follows the same rules in all seven rounds and will be explained in the following. The groups are newly formed every time. In the table below you can see the sequence of each of the seven rounds.

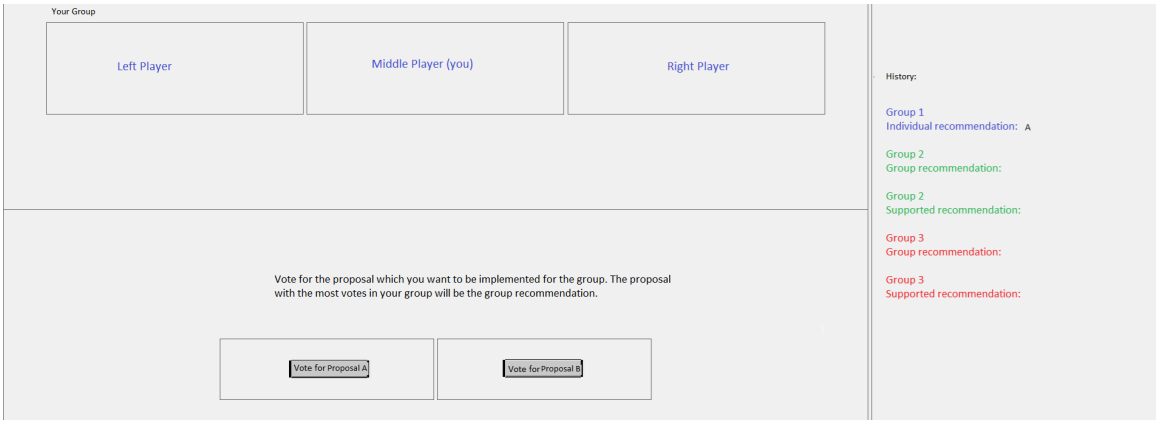
Group number:	Type of recommendation:
Group 1	Individual recommendation
Group 2	Group recommendation
Group 2	Supported recommendation
Group 3	Group recommendation
Group 3	Supported recommendation

Decision in Group 1:
Every group member selects one of the two proposals as an **individual recommendation**, either proposal A or proposal B. You see an example for how the screen looks like below. One of the group members will be selected randomly and the individual recommendation of this group member will be implemented.

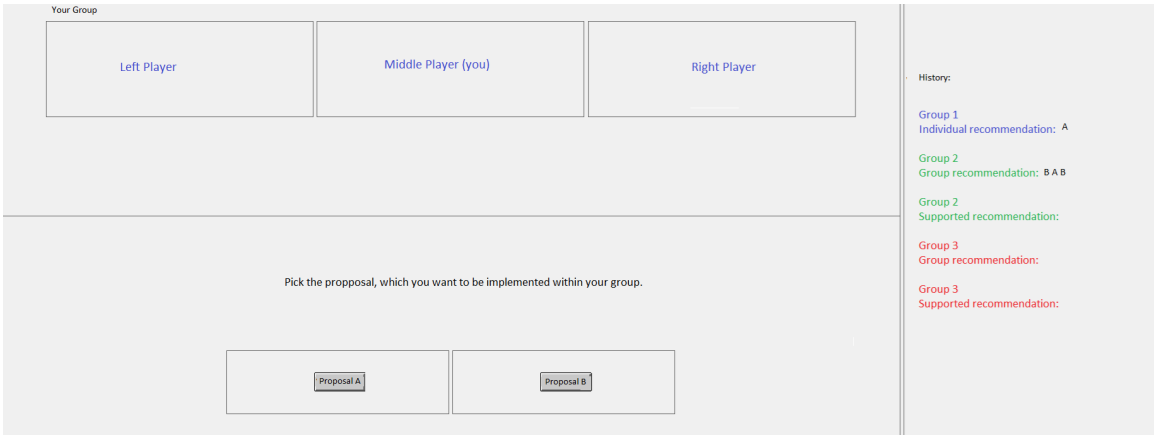
Decisions in Group 2:
You are forming now a group of three with two participants with whom you have not yet worked together. For the decision of Group 2, we collect a group recommendation and a group resolution.

Group recommendation:
Every group member votes for one of the two proposals. For an example of how the screen looks like see the picture below. The proposal that reaches the majority of votes (either 2 or 3 votes) is the *group recommendation.*

Note: Your vote is only decisive if the other two group members vote for different proposals (one for A and one for B). If both vote for the same proposal (both A or both B), this proposal wins irrespective of what you vote for.



Apart from the group decision there is also a group resolution. For the resolution, each group member must decide whether it wants to support or block the group recommendation. Only if no group member blocks the group recommendation, the group resolution will be the group recommendation. As long as one group member blocks the group recommendation, the group resolution will be the proposal that the group did *not* vote for. For example, if the group majority voted for proposal A, so that the group recommendation is for proposal A, and one group member blocks that recommendation, the group resolution is proposal B.



Whether the group recommendation or the group resolution is actually implemented, will be decided at the end of the experiment randomly by throwing a dice. It is equally likely that the group recommendation and the group resolution are selected.

Decision in Group 3: You are again matched with two completely different participants with whom you have not yet worked in this round to form a group of three. These are participants with whom you neither interacted in Group 1 or group 2. Otherwise the decisions are as in Group 2. That means a *group recommendation* and a *supported recommendation* are elicited and one of them is selected randomly at the end of the experiment.

Evaluation of Rounds

After the experiment three of the seven rounds will be randomly selected. These rounds will then be payoff relevant. For this we will draw three cards from a bag that contains seven consecutively numbered cards. Each card can only be drawn once. For the selected round, a six-sided dice will be thrown to determine which group and which recommendation or resolution will be paid out for this group. What happens if the individual recommendation is selected will be explained below the table. The group and the decision will be selected as follows.

Number shown by dice	What decides which proposal will be implemented?
1	Individual recommendation of group 1
2	Group recommendation of group 2
3	Group resolution of group 2
4	Group recommendation of group 3
5	Group resolution of group 3
6	Dice is thrown again.

If the individual recommendation is selected (Dice =1). A second dice who is marked on two sides each with "R" (Right), "L" (Left) and "M" (Middle) is thrown to determine which of the three group member´s (right, left, middle) decision become relevant for the whole group.

Payoff

The Taler received during the experiment will be transferred to Euro and payed out together with the fixed payment of 2.50 Euro after the experiment. In case, also the material payoff will be given together with the monetary payoff at the end of the experiment.

Structure of the experiment

1. You can ask questions about the instructions and the experiment.
2. You will answer question to ensure that you understand the instructions.
3. You will play a test round to get used to the screen.
4. The experiment is starting with the first of seven rounds
   All seven rounds proceed as follows:
   1. You give individual recommendation for group 1
   2. You vote for a group recommendation in group 2 and then decide whether you want support or block the voted group recommendation.
   3. You vote for a group recommendation in group 3 and then decide whether you want support or block the voted group recommendation.
5. The experiment is finished and you are asked to fill out a short questionnaire.
6. The payoff will be determined and anonymously paid:

Thank you for participating!

Translated Instructions: Low Power Treatment

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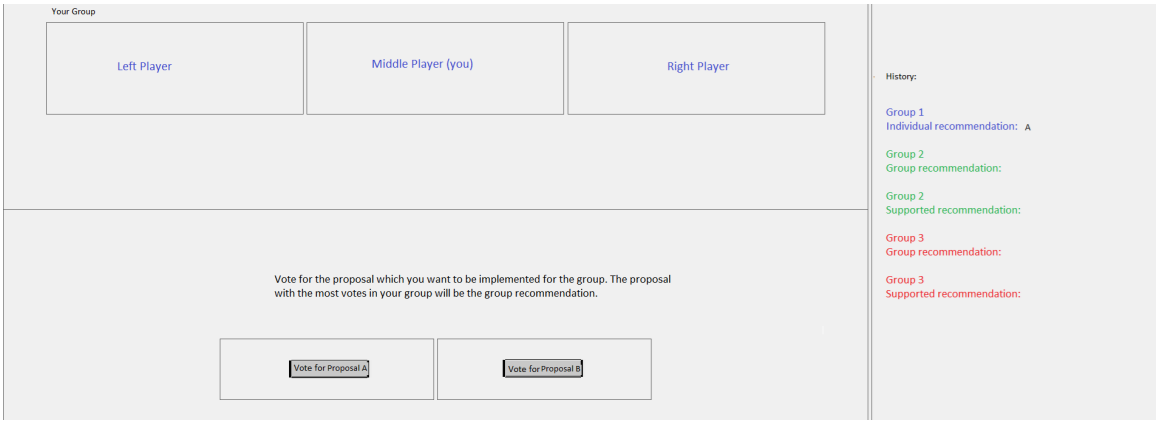

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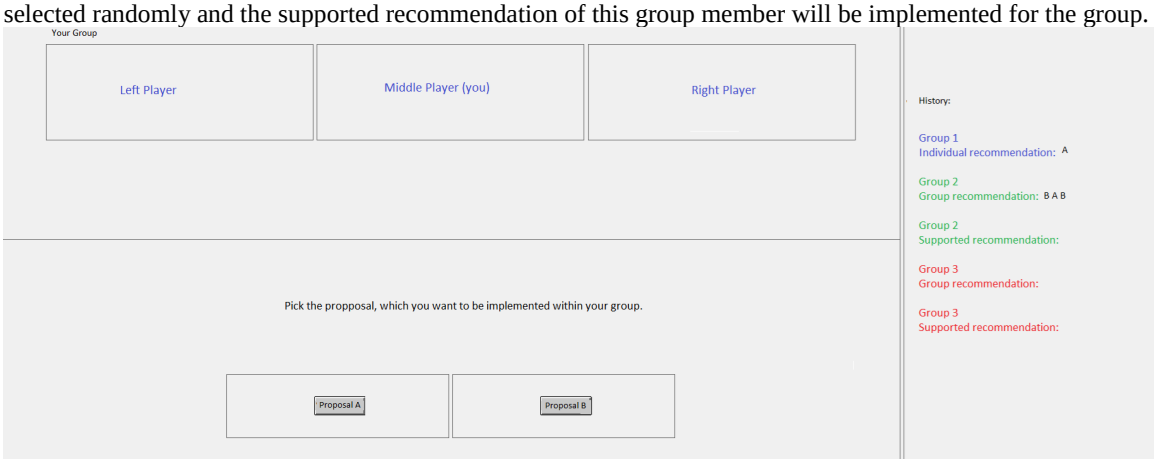

Whether the group recommendation or the group resolution is actually implemented, will be decided at the end of the experiment randomly by throwing a dice. It is equally likely that the group recommendation and the group resolution are selected.

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5. The experiment is finished and you are asked to fill out a short questionnaire.
6. The payoff will be determined and anonymously paid:

Thank you for participating!

Original Instructions in German Language: Low Power Treatment

Anleitung

Willkommen zum Experiment! Die Anleitung ist für alle Teilnehmer gleich. Während des Experiments ist die Kommunikation mit anderen Teilnehmern untersagt. Lassen Sie ihr Handy bis zum Ende des Experimentes ausgeschaltet. Wenn Sie Fragen haben, heben Sie bitte die Hand. Wir kommen dann zu Ihnen und beantworten Ihre Frage. Stellen Sie Ihre Fragen bitte so, dass kein anderer Teilnehmer diese mithören kann.

Für die Teilnahme erhalten Sie in jedem Fall ein festes Teilnahmeentgelt von 2,50€. Dazu erhalten Sie weitere Auszahlungen, die von Ihren Entscheidungen, den Entscheidungen anderer Teilnehmer und dem Zufall abhängen. Alle Zahlungen im Experiment werden in Talern angegeben. Am Ende des Experimentes werden die Taler zum Kurs von 1 Taler = 1 Cent umgerechnet und an Sie ausbezahlt. Ihre Entscheidungen in diesem Experiment sind anonym und werden nur für wissenschaftliche Zwecke ausgewertet.

Im Experiment bilden Sie mit zwei weiteren Teilnehmern in diesem Raum eine Dreier-Gruppe. Jedem Gruppenmitglied wird per Anzeige auf dem Bildschirm eine der folgenden Rollen zugewiesen: Links, Mitte oder Rechts. (Die Rolle stehen nicht in Verbindung zu Ihrem Sitzplatz im Labor.)

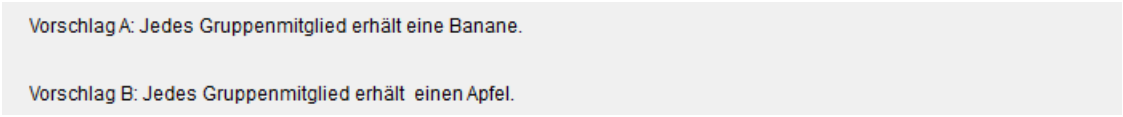
Jede Gruppe trifft eine Wahl zwischen zwei Vorschlägen: „Vorschlag A“ oder Vorschlag B“. Alle Vorschläge haben eine Auswirkung auf jedes Mitglied der Gruppe. Entweder wirkt sich der Vorschlag auf die Auszahlung in Talern aus, oder Sie erhalten am Ende des Experimentes einen Gegenstand, z.B. einen Stift. Hier sehen Sie einige Beispiele für mögliche Vorschläge:

1. Beispiel: “Die Person Links erhält einen Apfel. Die Personen Mitte und Rechts erhalten nichts.“

2. Beispiel: “Jedes Gruppenmitglied erhält 500 Taler.”

3. Beispiel: “Eine virtuelle Münze wird geworfen. Bei Kopf erhält jedes Mitglied der Gruppe eine Banane. Bei Zahl erhält jedes Mitglied einen Apfel.”

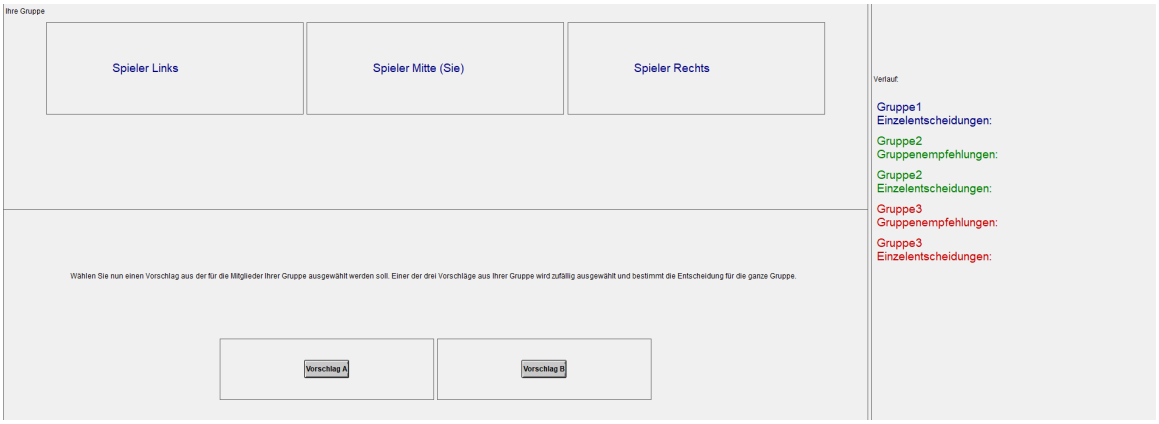
Zwei solche Vorschläge A und B, die so oder ähnlich aussehen, werden Ihnen, wie in dem Bild unterhalb, auf dem Bildschirm angezeigt.



Ablauf

Das Experiment besteht aus 7 Runden. In jeder Runde geht es um zwei neue Vorschläge A und B. Über diese Vorschläge wird innerhalb der Runde in drei völlig verschiedenen Gruppen entschieden. Eine Runde besteht aus drei unterschiedlichen Gruppen. In der ersten Gruppe wird eine Entscheidung getroffen in der zweiten und dritten jeweils zwei Entscheidungen. Insgesamt werden also 35 Entscheidungen getroffen. Wie die Entscheidung über die Vorschläge in den drei Gruppe zustande kommt ist dabei in allen 7 Runden gleich und wird im Folgenden erklärt. Die Gruppen werden jedes Mal neu gebildet.

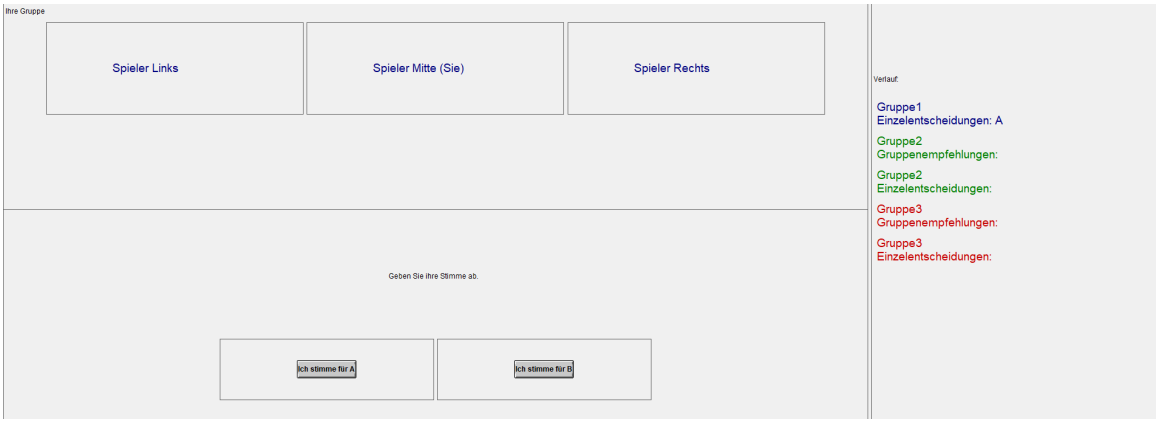
Entscheidung in Gruppe 1:
Jedes Gruppenmitglied wählt einen der beiden Vorschläge als **individuelle Empfehlung** aus, entweder "Vorschlag A" oder "Vorschlag B". Ein Beispiel für den Bildschirmaufbau sehen sie in Bild - Eines der drei Gruppenmitglieder wird zufällig ausgewählt und die individuelle Empfehlung dieses Gruppenmitglieds wird umgesetzt.



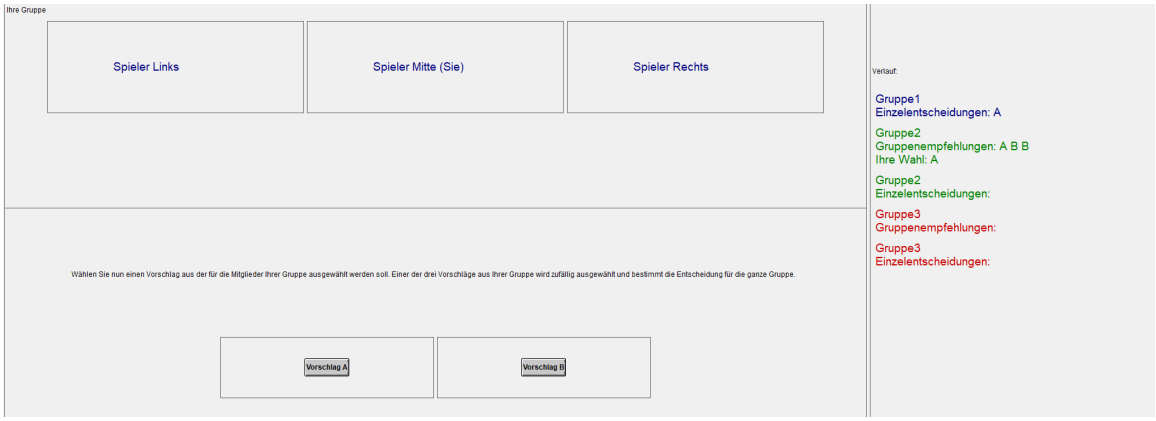
Entscheidung in Gruppe 2:
Sie bilden nun mit zwei neuen Teilnehmern, mit denen Sie bisher nicht zusammengearbeitet haben, eine neue Dreier-Gruppe. Für die Entscheidung in Gruppe 2 werden zwei Empfehlungen eingeholt.

Jedes Gruppenmitglied gibt eine Stimme für einen der beiden Vorschläge ab. Ein Beispiel für den Bildschirmaufbau bei dieser Entscheidung sehen Sie in Bild... Der Vorschlag, der die Stimmenmehrheit erreicht (entweder 2 oder 3 Stimmen) wird zur **Gruppenempfehlung**.

Hinweis: Ihre Stimme ist nur dann entscheidend, wenn die anderen beiden Gruppenmitglieder für unterschiedliche Vorschläge stimmen (einer A und der andere B). Stimmen die anderen beiden Gruppenmitglieder für den gleichen Vorschlag (beide A oder beide B), gewinnt dieser Vorschlag unabhängig davon wofür Sie stimmen.



Jedes Gruppenmitglied wählt danach einen der beiden Vorschläge als **individuelle Empfehlung** aus, entweder "Vorschlag A" oder "Vorschlag B" (siehe unten). Eine der drei Entscheidung wird zufällig ausgewählt und wird zur individuellen Empfehlung.



Ob die Gruppenempfehlung oder eine der individuellen Empfehlungen umgesetzt wird, wird am Ende des Experimentes zufällig durch einen Würfel bestimmt. Dabei ist es gleich wahrscheinlich, dass entweder die Gruppenempfehlung oder die individuelle Empfehlung ausgewählt wird.

Entscheidung in Gruppe 3: Sie bilden mit zwei wiederum anderen Teilnehmern, mit denen Sie bisher nicht zusammengearbeitet haben, eine neue Dreier-Gruppe. Es handelt sich dabei also um Teilnehmer, mit denen Sie weder in Gruppe 1, noch in Gruppe 2 zusammengearbeitet haben. Abgesehen davon verläuft die Entscheidung wie in Gruppe 2. D.h., es wird eine Gruppenempfehlung durch Abstimmung und eine individuelle Empfehlung eingeholt, und eine der Empfehlungen wird am Ende zufällig ausgewählt.

Auswertung der Runden

Nach dem Experiment werden drei der sieben Runden zufällig ausgewählt. Diese drei Runden sind auszahlungsrelevant. Dazu werden aus einem Beutel in dem sich 7 durchnummerierte Karten befinden, durch dreimaliges Ziehen einer Karte die drei Runden bestimmt. Jede Karte kann dabei nur einmal gezogen werden. Für jede der zufällig ausgewählten Runden wird ein 6-seitiger Würfel geworfen, um einerseits zu ermitteln welche Gruppe, und andererseits welche Empfehlung in dieser Gruppe, ausgezahlt wird. Was passiert, wenn die individuelle Empfehlung ausgewählt wird, wird im Abschnitt unter der Tabelle erläutert. Die Gruppe und die Entscheidung werden wie folgt ausgewählt:

Augenzahl auf Würfel	Was bestimmt welcher Vorschlag umgesetzt wird?
1	Individuelle Empfehlung aus Gruppe 1
2	Gruppenempfehlung aus Gruppe 2
3	Individuelle Empfehlung in Gruppe 2
4	Gruppenempfehlung in Gruppe 3
5	Individuelle Empfehlung in Gruppe 3
6	Der Würfel wird erneut geworfen

Wenn eine individuelle Empfehlung ausgewählt wird (bei den Augenzahlen “1”, “3”, oder “5”), wird mit Hilfe eines weiteren Würfels ausgewählt, welches der drei Gruppenmitglieder den Vorschlag bestimmen darf: das linke, mittlere oder rechte. Hierzu wird ein weiterer sechsseitiger Würfel genutzt auf dem zwei Seiten mit “L” (“Links”), zwei Seiten mit “M” (rechts) und zwei Seiten mit „R“ („Rechts“) markiert sind.

Auszahlung

Handelt es sich bei den ausgewählten Vorschlägen um eine monetäre Auszahlung, wird diese in Euro umgerechnet und direkt im Anschluss des Experimentes zusammen mit dem Teilnahmeentgelt von 2,50€ in bar ausgezahlt. Schreibt der Vorschlag eine Auszahlung in Form eines Gegenstandes vor, erhalten Sie auch diesen am Ende des Experimentes.

Weiterer Ablauf des Experiments

1. Sie können Fragen zu dem Experiment zu stellen.
2. Sie werden sich in einer Proberunde mit den Entscheidungen vertraut machen.
3. Sie beantworten Verständnisfragen zum Experiment, um sicherzustellen, dass Sie die Anleitung verstanden haben.
4. Das eigentliche Experiment beginnt dann mit der ersten der sieben Runden.
   Alle Runden laufen wie folgt ab:
   1. Sie geben Ihre individuelle Empfehlung für Gruppe 1 ab.
   2. Sie geben Ihre Stimme für die Empfehlung von Gruppe 2 ab und geben dann ihre individuelle Empfehlung für Gruppe 2 ab.
   3. Sie geben Ihre Stimme für die Empfehlung von Gruppe 3 ab und geben dann ihre individuelle Empfehlung für Gruppe 3 ab.
5. Das Experiment ist beendet und Sie werden gebeten, einen kurzen Fragebogen auszufüllen.
6. Die Auszahlung wird ermittelt und anonym ausbezahlt:

Vielen Dank für Ihre Teilnahme!

Original Instructions in German Language: High Power Treatment

Anleitung

Willkommen zum Experiment! Die Anleitung ist für alle Teilnehmer gleich. Während des Experiments ist die Kommunikation mit anderen Teilnehmern untersagt. Lassen Sie ihr Handy bis zum Ende des Experimentes ausgeschaltet. Wenn Sie Fragen haben, heben Sie bitte die Hand. Wir kommen dann zu Ihnen und beantworten Ihre Frage. Stellen Sie Ihre Fragen bitte so, dass kein anderer Teilnehmer diese mithören kann.

Für die Teilnahme erhalten Sie in jedem Fall ein festes Teilnahmeentgelt von 2,50€. Dazu erhalten Sie weitere Auszahlungen, die von Ihren Entscheidungen, den Entscheidungen anderer Teilnehmer und dem Zufall abhängen. Alle Zahlungen im Experiment werden in Talern angegeben. Am Ende des Experimentes werden die Taler zum Kurs von 1 Taler = 1 Cent umgerechnet und an Sie ausbezahlt. Ihre Entscheidungen in diesem Experiment sind anonym und werden nur für wissenschaftliche Zwecke ausgewertet.

Im Experiment bilden Sie mit zwei weiteren Teilnehmern in diesem Raum eine Dreier-Gruppe. Jedem Gruppenmitglied wird per Anzeige auf dem Bildschirm eine der folgenden Rollen zugewiesen: Links, Mitte oder Rechts. (Die Rolle stehen nicht in Verbindung zu Ihrem Sitzplatz im Labor.)

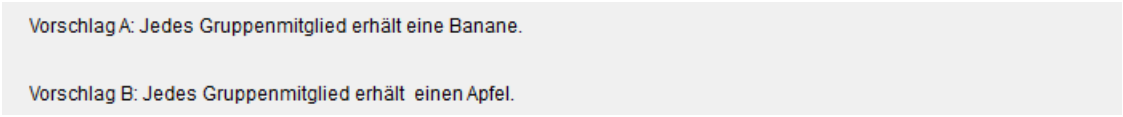
Jede Gruppe trifft eine Wahl zwischen zwei Vorschlägen: „Vorschlag A“ oder Vorschlag B“. Alle Vorschläge haben eine Auswirkung auf jedes Mitglied der Gruppe. Entweder wirkt sich der Vorschlag auf die Auszahlung in Talern aus, oder Sie erhalten am Ende des Experimentes einen Gegenstand, z.B. einen Stift. Hier sehen Sie einige Beispiele für mögliche Vorschläge:

1. Beispiel: “Die Person Links erhält einen Apfel. Die Personen Mitte und Rechts erhalten nichts.“

2. Beispiel: “Jedes Gruppenmitglied erhält 500 Taler.”

3. Beispiel: “Eine virtuelle Münze wird geworfen. Bei Kopf erhält jedes Mitglied der Gruppe eine Banane. Bei Zahl erhält jedes Mitglied einen Apfel.”

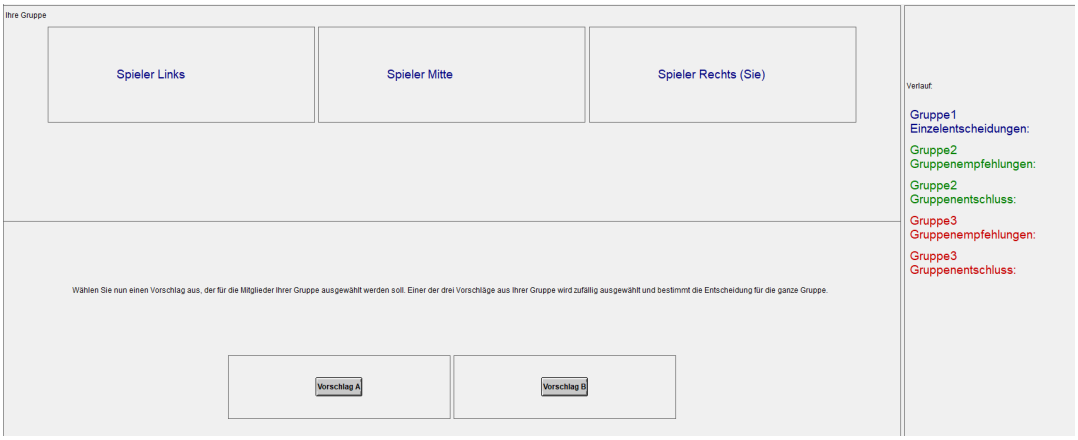
Zwei solche Vorschläge A und B, die so oder ähnlich aussehen, werden Ihnen, wie in dem Bild unterhalb, auf dem Bildschirm angezeigt.



Ablauf

Das Experiment besteht aus 7 Runden. In jeder Runde geht es um zwei neue Vorschläge A und B. Über diese Vorschläge wird innerhalb der Runde in drei völlig verschiedenen Gruppen entschieden. Eine Runde besteht aus drei unterschiedlichen Gruppen. In der ersten Gruppe wird eine Entscheidung getroffen in der zweiten und dritten jeweils zwei Entscheidungen. Insgesamt werden also 35 Entscheidungen getroffen. Wie die Entscheidung über die Vorschläge in den drei Gruppe zustande kommt ist dabei in allen 7 Runden gleich und wird im Folgenden erklärt. Die Gruppen werden jedes Mal neu gebildet.

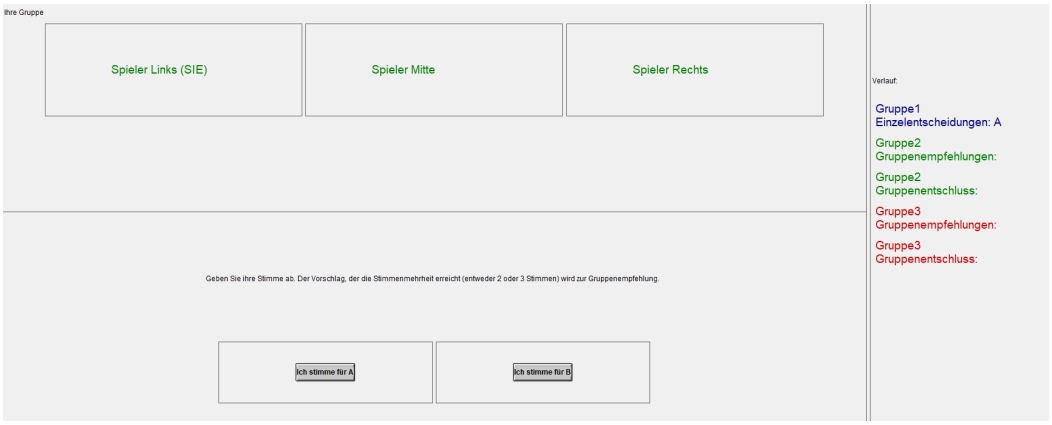
Entscheidung in Gruppe 1:
Jedes Gruppenmitglied wählt einen der beiden Vorschläge als **individuelle Empfehlung** aus, entweder "Vorschlag A" oder "Vorschlag B". Ein Beispiel für den Bildschirmaufbau sehen sie im Bild unten. Eines der drei Gruppenmitglieder wird zufällig ausgewählt und die individuelle Empfehlung dieses Gruppenmitglieds wird umgesetzt.



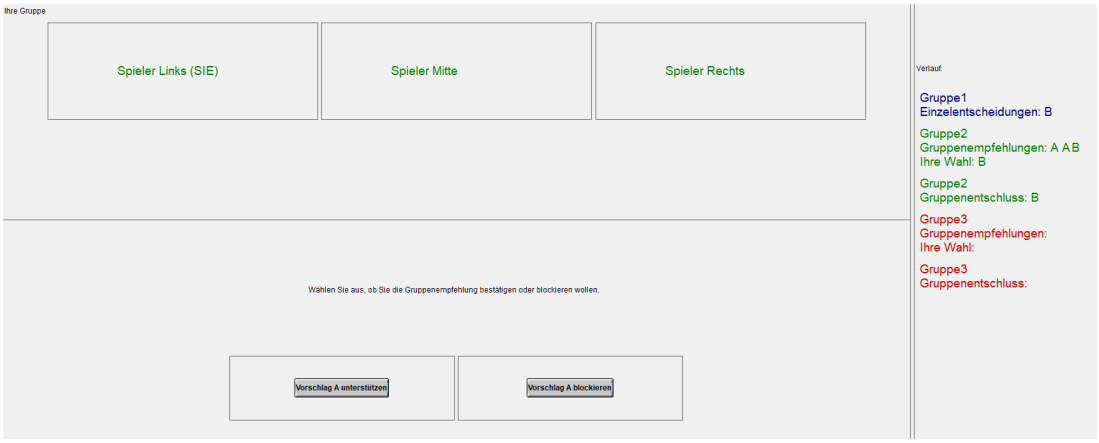
Entscheidung in Gruppe 2:
Sie bilden nun mit zwei neuen Teilnehmern, mit denen Sie bisher nicht zusammengearbeitet haben, eine neue Dreier-Gruppe. Für die Entscheidung in Gruppe 2 werden eine Empfehlung und ein Entschluss eingeholt.

Jedes Gruppenmitglied gibt eine Stimme für einen der beiden Vorschläge ab. Ein Beispiel für den Bildschirmaufbau bei dieser Entscheidung sehen Sie im Bild unten. Der Vorschlag, der die Stimmenmehrheit erreicht (entweder 2 oder 3 Stimmen) wird zur **Gruppenempfehlung**.

Hinweis: Ihre Stimme ist nur dann entscheidend, wenn die anderen beiden Gruppenmitglieder für unterschiedliche Vorschläge stimmen (einer A und der andere B). Stimmen die anderen beiden Gruppenmitglieder für den gleichen Vorschlag (beide A oder beide B), gewinnt dieser Vorschlag unabhängig davon wofür Sie stimmen.



Neben der Gruppenempfehlung gibt es auch noch einen Gruppenentschluss. Dazu muss jedes Gruppenmitglied entscheiden, ob es die Gruppenempfehlung bestätigen oder blockieren möchte. Nur wenn keines der Gruppenmitglieder die Gruppenempfehlung blockiert, dann wird die Gruppenempfehlung auch zum **Gruppenentschluss**. Solange eines der Gruppenmitglieder die Gruppenempfehlung blockiert, wird der Vorschlag zum Gruppenentschluss, den die Gruppe *nicht* gewählt hat. Hat sich die Gruppe also zum Beispiel mehrheitlich für Vorschlag A entschieden, so dass die Gruppenempfehlung Vorschlag A lautet, und blockiert ein Gruppenmitglied den Vorschlag, so ist Vorschlag B der Gruppenentschluss.



Ob die Gruppenempfehlung oder der Gruppenentschluss tatsächlich umgesetzt wird, wird am Ende des Experimentes zufällig mit einem Würfel bestimmt. Dabei ist es gleich wahrscheinlich, dass die Gruppenempfehlung oder der Gruppenentschluss ausgewählt wird.

Entscheidung in Gruppe 3: Sie bilden mit zwei wiederum anderen Teilnehmern, mit denen Sie bisher nicht zusammengearbeitet haben, eine neue Dreier-Gruppe. Es handelt sich dabei also um Teilnehmer, mit denen Sie weder in Gruppe 1, noch in Gruppe 2 zusammengearbeitet haben. Abgesehen davon verläuft die Entscheidung wie in Gruppe 2. D.h., es wird erst eine Gruppenempfehlung durch Abstimmung und danach ein Gruppenentschluss eingeholt.

Auswertung der Runden

Nach dem Experiment werden drei der sieben Runden zufällig ausgewählt. Diese drei Runden sind auszahlungsrelevant. Dazu werden aus einem Beutel in dem sich 7 durchnummerierte Karten befinden, drei Karten gezogen. Die Zahlen auf den Karten bestimmen dann die drei Runden. Für jede der zufällig ausgewählten Runden wird ein 6-seitiger Würfel geworfen, um einerseits zu ermitteln welche Gruppe, und andererseits welche Empfehlung oder welcher Entschluss in dieser Gruppe, ausgezahlt wird. Was passiert, wenn die individuelle Empfehlung ausgewählt wird, wird im Abschnitt unter der Tabelle erläutert. Die Gruppe und die Entscheidung werden wie folgt ausgewählt:

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5	Gruppenentschluss in Gruppe 3
6	Der Würfel wird erneut geworfen

Wenn eine individuelle Empfehlung ausgewählt wird (bei der Augenzahlen "1"), wird mit Hilfe eines weiteren Würfels ausgewählt, welches der drei Gruppenmitglieder den Vorschlag bestimmen darf: das linke, mittlere oder rechte. Hierzu wird ein weiterer sechsseitiger Würfel genutzt auf dem zwei Seiten mit "L" ("Links"), zwei Seiten mit "M" (rechts) und zwei Seiten mit „R" („Rechts") markiert sind.

Auszahlung

Handelt es sich bei den ausgewählten Vorschlägen um eine monetäre Auszahlung, wird diese in Euro umgerechnet und direkt im Anschluss des Experimentes zusammen mit dem Teilnahmeentgelt von 2,50€ in bar ausgezahlt. Schreibt der Vorschlag eine Auszahlung in Form eines Gegenstandes vor, erhalten Sie auch diesen am Ende des Experimentes.

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2. Sie werden sich in einer Proberunde mit den Entscheidungen vertraut machen.
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   Alle Runden laufen wie folgt ab:
   1. Sie geben Ihre individuelle Empfehlung für Gruppe 1 ab.
   2. Sie geben Ihre Stimme für die Empfehlung von Gruppe 2 ab und entscheiden dann, ob sie die Gruppenempfehlung der Gruppe 2 blockieren.
   3. Sie geben Ihre Stimme für die Empfehlung von Gruppe 3 ab und entscheiden dann, ob sie die Gruppenempfehlung der Gruppe 3 blockieren.
5. Das Experiment ist beendet und Sie werden gebeten, einen kurzen Fragebogen auszufüllen.
6. Die Auszahlung wird ermittelt und anonym ausbezahlt:

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