Electoral Rules, Strategic Entry and Polarization

Supplementary material
Experimental instructions

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S1. Instructions given to participants at the beginning of the experiment

S1A. INSTRUCTIONS (endogenous and PR, Treatment 1)

Thank you for agreeing to participate in this research experiment. It should last around 1 hour. The sum of money you will earn during the session will be given privately at the end. From now until the end of the experiment you cannot talk to any other participant. If you have a question, please raise your hand and I will answer your questions privately.

This experiment consists of 5 series of 5 games, so 25 games in total. For each of the series, you will be randomly assigned into a group of 3 participants. You will play with the participants of your group for 5 games, and then the groups will be reshuffled randomly.

In each game, you will be able to gain some points depending on your decision and the decision of the other group participants. At the end of the experiment, the computer will randomly select 1 out of 25 games. The points you gained at this precise game will be converted into money, so that 10 points=0.7£

THE GAME

Each game is a simulation of a friend reunion and the decision of the amount of food that should be prepared. In each group, each of the 3 participants can propose how many food portions should be prepared. Then, 11 friends -played by the computer- vote for one of the proposals and the final food decision is taken.

The friends -played by the computer- have a preference for food portions so that Friend F0 prefers 0 portions, Friend F1 prefers 1 portion, Friend F3 prefers 3 portions, etc.:

Friend	F0	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
Food preference	0	1	2	3	4	5	6	7	8	9	10

As a participant, you also have a personal preference regarding the number of food portions. In each group Participant P0 prefers 0 portions, Participant P5 prefers 5 portions, and Participant P10 prefers 10 portions:

Participant	P0					P5					P10
Food preference	0	1	2	3	4	5	6	7	8	9	10

Your preference is randomly assigned to you by the computer. You keep this preference for each series of 5 games and then you are given a new preference.

PROPOSALS AND VOTES

You can make a proposal about the number of food portions you plan to have at the reunion. This can be any number between 0 and 10 portions. However, to make a food proposal, you must pay a cost of 2 points. So, you can also decide not to make any food proposal.

The proposal is made in two steps. First, you decide whether you want to make a food proposal or not (and pay 2 points if you do). If you chose to make a proposal, you then see on your screen which other participants of your group decided to do so as well. Then, you make your proposal simultaneously with the other proposers, so that you do not know what they are proposing when you make your proposal.

The friends -played by the computer- then vote for one of the food proposals. These votes are automatic and follow a simple logic: friends vote for the food proposal that is the closest to their food preference. In case a friend is equally close from 2 (or 3) proposals, each proposal receives 1/2 (or 1/3) vote. Similarly, if 2 (or 3) proposals are the same, the votes they receive will be divided by 2 (or 3).

For example, imagine that there are 2 food proposals by participants P0 and P5 while participant P10 decided not to make a proposal. If P0 proposed 4 food portions and P5 proposed 5 food portions, P0 gets 5 votes and P5 gets 6 votes as follows:

Food proposal(s) by						***P0***		***P5***				
Food quantity		*0*	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*
Friends		*F0*	*F1*	*F2*	*F3*	*F4*	*F5*	*F6*	*F7*	*F8*	*F9*	*F10*
	Total											
Votes for P0	***5***	*1*	*1*	*1*	*1*	*1*	*0*	*0*	*0*	*0*	*0*	*0*
Votes for P5	***6***	*0*	*0*	*0*	*0*	*0*	*1*	*1*	*1*	*1*	*1*	*1*
Votes for P10	***0***	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*

FINAL FOOD DECISION

The friends' votes determine the number of food portions that will be prepared for the reunion. The final food decision is calculated as follows and food portions are rounded to the closest integer:

$$\text{Final food} = \frac{(\text{votes for P0}) * (\text{food of P0}) + (\text{votes for P5}) * (\text{food of P5}) + (\text{votes for P10}) * (\text{food of P10})}{11}$$

In the above example, there is no P10 because the participant P10 decided not to make a proposal. So, the final number of food portions is:

$$\text{Final food decision} = \frac{(5 \text{ votes}) * (4 \text{ portions}) + (6 \text{ votes}) * (5 \text{ portions})}{11} = 4.54 \approx 5$$

Finally, note that if none of the participants made a proposal, the computer will randomly choose the final food decision.

POINTS

Each of you gets some points depending on:

i) The **distance** between your preferred food quantity and the final food decision.

ii) The number of **votes** you got and the **cost** you paid (if you made a proposal).

i) All participants, get some points depending on how distant is their food preference (0, 5, or 10) from the final number of food portions. For example, if you are participant P0 with a preference for 0 portions and the final food decision is 5 then your distance from the decision is 5. The smaller this distance, the more points you get as follows:

Points from food decision = 12 * [10 – (Distance)]

In the above example:

Participants:	*P0*	*P5*	*P10*
Food preference	*0*	*5*	*10*
Final food	*5*	*5*	*5*
Distance	*5*	*0*	*5*
Points from Food Decision: 12*(10-Distance)	*60*	*120*	*60*

ii) All participants who made a proposal pay the cost of 2 points for making a proposal and get additional points equal to their votes.

For our example where P0 and P5 made a proposal, participants' total points are:

Points for:	*P0*	*P5*	*P10*
From:			
Food Decision, 12*(10-Distance)	*60*	*120*	*60*
Votes	*5*	*6*	*0*
Cost of proposal	*-2*	*-2*	*0*
Total	*63*	*124*	*60*

SUMMARY

(1) You will play 5 series of 5 games. In total 25 games.

(2) In each series of 5 games, you belong to a group of 3 participants, and you are assigned to one of the 3 food preferences (P0, P5, or P10). Your group and preference will remain the same for the 5 games. After these 5 games, groups and preferences are randomly reshuffled.

(3) For each game, you decide to make a food proposal or not. If you make a proposal, it costs you 2 points

(4) If you decided to make a food proposal, you see on your screen which other participants of your group also decided to make a food proposal, but you do not know how many food portions they will propose. You then decide your food proposal (any number from 0 to 10).

(5) The friends played by the computer vote for the food proposal that is the closest from their food preference. Their votes determine the final food decision.

(6) You receive points depending on the distance between your food preference and the final food decision. The closest the decision to your preference the more points you get. If you made a proposal you also receive some points from the votes you got and have to pay the cost of making a proposal. You see the full results on your screen.

(7) After all 25 games, the computer randomly selects 1 game. The points you gained at this precise game will be converted into money so that 10 points=0.7£

S1B. INSTRUCTIONS (endogenous and Plurality, Treatment 2)

Thank you for agreeing to participate in this research experiment. It should last around 1 hour. The sum of money you will earn during the session will be given privately at the end. From now until the end of the experiment you cannot talk to any other participant. If you have a question, please raise your hand and I will answer your questions privately.

This experiment consists of 5 series of 5 games, so 25 games in total. For each of the series, you will be randomly assigned into a group of 3 participants. You will play with the participants of your group for 5 games, and then the groups will be reshuffled randomly.

In each game, you will be able to gain some points depending on your decision and the decision of the other group participants. At the end of the experiment, the computer will randomly select 1 out of 25 games. The points you gained at this precise game will be converted into money, so that 10 points=0.7£

THE GAME

Each game is a simulation of a friend reunion and the decision of the amount of food that should be prepared. In each group, each of the 3 participants can propose how many food portions should be prepared. Then, 11 friends -played by the computer- vote for one of the proposals and the final food decision is taken.

The friends -played by the computer- have a preference for food portions so that Friend F0 prefers 0 portions, Friend F1 prefers 1 portion, Friend F3 prefers 3 portions, etc.:

Friend	F0	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
Food preference	0	1	2	3	4	5	6	7	8	9	10

As a participant, you also have a personal preference regarding the number of food portions. In each group Participant P0 prefers 0 portions, Participant P5 prefers 5 portions, and Participant P10 prefers 10 portions:

Participant	P0					P5					P10
Food preference	0	1	2	3	4	5	6	7	8	9	10

Your preference is randomly assigned to you by the computer. You keep this preference for each series of 5 games and then you are given a new preference.

PROPOSALS AND VOTES

You can make a proposal about the number of food portions you plan to have at the reunion. This can be any number between 0 and 10 portions. However, to make a food proposal, you must pay a cost of 2 points. So, you can also decide not to make any food proposal.

The proposal is made in two steps. First, you decide whether you want to make a food proposal or not (and pay 2 points if you do). If you chose to make a proposal, you then see on your screen which other participants of your group decided to do so as well. Then, you make your proposal simultaneously with the other proposers, so that you do not know what they are proposing when you make your proposal.

The friends -played by the computer- then vote for one of the food proposals. These votes are automatic and follow a simple logic: friends vote for the food proposal that is the closest to their food preference. In case a friend is equally close from 2 (or 3) proposals, each proposal receives 1/2 (or 1/3) vote. Similarly, if 2 (or 3) proposals are the same, the votes they receive will be divided by 2 (or 3).

For example, imagine that there are 2 food proposals by participants P0 and P5 while participant P10 decided not to make a proposal. If P0 proposed 4 food portions and P5 proposed 5 food portions, P0 gets 5 votes and P5 gets 6 votes as follows:

Food proposal(s) by						*P0*	*P5*				
Food quantity		*0*	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*
Friends		*F0*	*F1*	*F2*	*F3*	*F4*	*F5*	*F6*	*F7*	*F8*	*F9*	*F10*
	Total											
Votes for P0	***5***	*1*	*1*	*1*	*1*	*1*	*0*	*0*	*0*	*0*	*0*	*0*
Votes for P5	***6***	*0*	*0*	*0*	*0*	*0*	*1*	*1*	*1*	*1*	*1*	*1*
Votes for P10	***0***	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*

FINAL FOOD DECISION

The friends' votes determine the number of food portions that will be prepared for the reunion. **The final food decision is the proposal that gets most votes.**

In the above example, the final number of food portions is 5 because this the proposal that gets most votes (6 votes).

Note that if there is a tie (two or more proposals obtain the same number of votes), the computer will decide upon the winning food proposal by choosing the less extreme one among the tied proposals, that is the one that is the further away from 0 or 10. In case, the tied food proposals are equally extreme, the computer will randomly choose the winning food proposal among them.

Finally, note that if none of the participants made a proposal, the computer will randomly choose the final food decision.

POINTS

Each of you gets some points depending on:

i) The **distance** between your preferred food quantity and the final food decision.
ii) The number of **votes** you got and the **cost** you paid (if you made a proposal).

i) All participants, get some points depending on how distant is their food preference (0, 5, or 10) from the final number of food portions. For example, if you are participant P0 with a preference for 0 portions and the final food decision is 5 then your distance from the decision is 5. The smaller this distance, the more points you get as follows:

Points from food decision = 12 * [10 – (Distance)]

In the above example:

Participants:	*P0*	*P5*	*P10*
Food preference	*0*	*5*	*10*
Final food	*5*	*5*	*5*
Distance	*5*	*0*	*5*
Points from Food Decision: 12*(10-Distance)	*60*	*120*	*60*

ii) The participant whose proposal is chosen as the final food decision receives 11 points. In case more than one participant proposed the final food decision, each of them gets the 11 points with equal probability.
All participants who made a proposal pay the cost of 2 points for making a proposal.

For our example where P0 and P5 made a proposal and proposal by P5 was chosen as the final food decision, participants' total points are:

Points for:	*P0*	*P5*	*P10*
From:			
Food Decision, 12*(10-Distance)	*60*	*120*	*60*
Votes	*0*	*11*	*0*
Cost of proposal	*-2*	*-2*	*0*
Total	*58*	*129*	*60*

SUMMARY

(1) You will play 5 series of 5 games. In total 25 games.

(2) In each series of 5 games, you belong to a group of 3 participants, and you are assigned to one of the 3 food preferences (P0, P5, or P10). Your group and preference will remain the same for the 5 games. After these 5 games, groups and preferences are randomly reshuffled.

(3) For each game, you decide to make a food proposal or not. If you make a proposal, it costs you 2 points.

(4) If you decided to make a food proposal, you see on your screen which other participants of your group also decided to make a food proposal, but you do not know how many food portions they will propose. You then decide your food proposal (any number from 0 to 10).

(5) The friends played by the computer vote for the food proposal that is the closest from their food preference. Their votes determine the final food decision.

(6) You receive points depending on the distance between your food preference and the final food decision. The closest the decision to your preference the more points you get. If you made a proposal and got most votes, you also receive some points and have to pay the cost of making a proposal. You see the full results on your screen.

(7) After all 25 games, the computer randomly selects 1 game. The points you gained at this precise game will be converted into money so that 10 points=0.7£

S1C. INSTRUCTIONS (3 participants and PR, Treatment 3)

Thank you for agreeing to participate in this research experiment. It should last around 1 hour. The sum of money you will earn during the session will be given privately at the end. From now until the end of the experiment you cannot talk to any other participant. If you have a question, please raise your hand and I will answer your questions privately.

This experiment consists of 5 series of 5 games, so 25 games in total. For each of the series, you will be randomly assigned into a group of 3 participants. You will play with the participants of your group for 5 games, and then the groups will be reshuffled randomly.

In each game, you will be able to gain some points depending on your decision and the decision of the other group participants. At the end of the experiment, the computer will randomly select 1 out of 25 games. The points you gained at this precise game will be converted into money, so that 10 points=0.7£

THE GAME

Each game is a simulation of a friend reunion and the decision of the amount of food that should be prepared. In each group, each of the 3 participants propose how many food portions should be prepared. Then, 11 friends -played by the computer- vote for one of the proposals and the final food decision is taken.

The friends -played by the computer- have a preference for food portions so that Friend F0 prefers 0 portions, Friend F1 prefers 1 portion, Friend F3 prefers 3 portions, etc.:

Friend	F0	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
Food preference	0	1	2	3	4	5	6	7	8	9	10

As a participant, you also have a personal preference regarding the number of food portions. In each group Participant P0 prefers 0 portions, Participant P5 prefers 5 portions, and Participant P10 prefers 10 portions:

Participant	P0					P5					P10
Food preference	0	1	2	3	4	5	6	7	8	9	10

Your preference is randomly assigned to you by the computer. You keep this preference for each series of 5 games and then you are given a new preference.

PROPOSALS AND VOTES

You make a proposal about the number of food portions you plan to have at the reunion. This can be any number between 0 and 10 portions.

You make your proposal simultaneously with the other proposers, so that you do not know what they are proposing when you make your proposal.

The friends -played by the computer- then vote for one of the food proposals. These votes are automatic and follow a simple logic: friends vote for the food proposal that is the closest to their food preference. In case a friend is equally close from 2 (or 3) proposals, each proposal receives 1/2 (or 1/3) vote. Similarly, if 2 (or 3) proposals are the same, the votes they receive will be divided by 2 (or 3).

For example, imagine that P0 proposed 4 food portions, P5 proposed 5 food portions, and P10 proposed 8 food portions. P0 gets 5 votes, P5 gets 2 votes, and P10 gets 4 votes as follows:

Food proposal(s) by						*P0*	*P5*			*P10*		
Food quantity		*0*	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*
Friends		*F0*	*F1*	*F2*	*F3*	*F4*	*F5*	*F6*	*F7*	*F8*	*F9*	*F10*
	Total											
Votes for P0	***5***	*1*	*1*	*1*	*1*	*1*	*0*	*0*	*0*	*0*	*0*	*0*
Votes for P5	***2***	*0*	*0*	*0*	*0*	*0*	*1*	*1*	*0*	*0*	*0*	*0*
Votes for P10	***4***	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*1*	*1*	*1*

FINAL FOOD DECISION

The friends' votes determine the number of food portions that will be prepared for the reunion. The final food decision is calculated as follows and food portions are rounded to the closest integer:

$$\text{Final food} = \frac{(\text{votes for P0}) * (\text{food of P0}) + (\text{votes for P5}) * (\text{food of P5}) + (\text{votes for P10}) * (\text{food of P10})}{11}$$

In the above example, the final number of food portions is:

$$\text{Final food decision} = \frac{(5\text{ votes}) * (4\text{ portions}) + (2\text{ votes}) * (5\text{ portions}) + (4\ votes) * (8\ portions)}{11} = 5.63 \approx 6$$

POINTS

Each of you gets some points depending on:

i) The **distance** between your preferred food quantity and the final food decision.
ii) The number of **votes** you got.

i) All participants, get some points depending on how distant is their food preference (0, 5, or 10) from the final number of food portions. For example, if you are participant P0 with a preference for 0 portions and the final food decision is 6 then your distance from the decision is 6. The smaller this distance, the more points you get as follows:

Points from food decision = 12 * [10 – (Distance)]

In the above example:

Participants:	*P0*	*P5*	*P10*
Food preference	*0*	*5*	*10*
Final food	*6*	*6*	*6*
Distance	*6*	*1*	*4*
Points from Food Decision: 12*(10-Distance)	*48*	*108*	*72*

ii) All participants get additional points equal to their votes.

For our example, participants' total points are:

Points for:	*P0*	*P5*	*P10*
From:			
Food Decision, 12*(10-Distance)	*48*	*108*	*72*
Votes	*5*	*2*	*4*
Total	*53*	*110*	*76*

SUMMARY

(1) You will play 5 series of 5 games. In total 25 games.

(2) In each series of 5 games, you belong to a group of 3 participants, and you are assigned to one of the 3 food preferences (P0, P5, or P10). Your group and preference will remain the same for the 5 games. After these 5 games, groups and preferences are randomly reshuffled.

(3) For each game, you make a food proposal, but you do not know how many food portions other participants will propose.

(4) The friends played by the computer vote for the food proposal that is the closest from their food preference. Their votes determine the final food decision.

(5) You receive points depending on the distance between your food preference and the final food decision. The closest the decision to your preference the more points you get. You also receive some points from the votes you got. You see the full results on your screen.

(6) After all 25 games, the computer randomly selects 1 game. The points you gained at this precise game will be converted into money so that 10 points=0.7£

S1D. INSTRUCTIONS (3 participants and Plurality, Treatment 4)

Thank you for agreeing to participate in this research experiment. It should last around 1 hour. The sum of money you will earn during the session will be given privately at the end. From now until the end of the experiment you cannot talk to any other participant. If you have a question, please raise your hand and I will answer your questions privately.

This experiment consists of 5 series of 5 games, so 25 games in total. For each of the series, you will be randomly assigned into a group of 3 participants. You will play with the participants of your group for 5 games, and then the groups will be reshuffled randomly.

In each game, you will be able to gain some points depending on your decision and the decision of the other group participants. At the end of the experiment, the computer will randomly select 1 out of 25 games. The points you gained at this precise game will be converted into money, so that 10 points=0.7£

THE GAME

Each game is a simulation of a friend reunion and the decision of the amount of food that should be prepared. In each group, each of the 3 participants propose how many food portions should be prepared. Then, 11 friends -played by the computer- vote for one of the proposals and the final food decision is taken.

The friends -played by the computer- have a preference for food portions so that Friend F0 prefers 0 portions, Friend F1 prefers 1 portion, Friend F3 prefers 3 portions, etc.:

Friend	F0	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
Food preference	0	1	2	3	4	5	6	7	8	9	10

As a participant, you also have a personal preference regarding the number of food portions. In each group Participant P0 prefers 0 portions, Participant P5 prefers 5 portions, and Participant P10 prefers 10 portions:

Participant	P0					P5					P10
Food preference	0	1	2	3	4	5	6	7	8	9	10

Your preference is randomly assigned to you by the computer. You keep this preference for each series of 5 games and then you are given a new preference.

PROPOSALS AND VOTES

You make a proposal about the number of food portions you plan to have at the reunion. This can be any number between 0 and 10 portions.

You make your proposal simultaneously with the other proposers, so that you do not know what they are proposing when you make your proposal.

The friends -played by the computer- then vote for one of the food proposals. These votes are automatic and follow a simple logic: friends vote for the food proposal that is the closest to their food preference. In case a friend is equally close from 2 (or 3) proposals, each proposal receives 1/2 (or 1/3) vote. Similarly, if 2 (or 3) proposals are the same, the votes they receive will be divided by 2 (or 3).

For example, imagine that P0 proposed 4 food portions, P5 proposed 5 food portions, and P10 proposed 8 food portions. P0 gets 5 votes, P5 gets 2 votes, and P10 gets 4 votes as follows:

Food proposal(s) by						*P0*	*P5*			*P10*		
Food quantity		*0*	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*
Friends		*F0*	*F1*	*F2*	*F3*	*F4*	*F5*	*F6*	*F7*	*F8*	*F9*	*F10*
	Total											
Votes for P0	***5***	*1*	*1*	*1*	*1*	*1*	*0*	*0*	*0*	*0*	*0*	*0*
Votes for P5	***2***	*0*	*0*	*0*	*0*	*0*	*1*	*1*	*0*	*0*	*0*	*0*
Votes for P10	***4***	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*1*	*1*	*1*

FINAL FOOD DECISION

The friends' votes determine the number of food portions that will be prepared for the reunion. **The final food decision is the proposal that gets most votes.**

In the above example, the final number of food portions is 4 because this the proposal that gets most votes (5 votes).

Note that if there is a tie (two or more proposals obtains the same number of votes), the computer will decide upon the winning food proposal by choosing the less extreme one among the tied proposals, that is the one that is the further away from 0 or 10. In case, the tied food proposals are equally extreme, the computer will randomly choose the winning food proposal among them.

POINTS

Each of you gets some points depending on:

i) The **distance** between your preferred food quantity and the final food decision.

ii) The number of **votes** you got

i) All participants, get some points depending on how distant is their food preference (0, 5, or 10) from the final number of food portions. For example, if you are participant P0 with a preference for 0 portions and the final food decision is 4 then your distance from the decision is 4. The smaller this distance, the more points you get as follows:

Points from food decision = 12 * [10 – (Distance)]

In the above example:

Participants:	*P0*	*P5*	*P10*
Food preference	*0*	*5*	*10*
Final food	*4*	*4*	*4*
Distance	*4*	*1*	*6*
Points from Food Decision: 12*(10-Distance)	*72*	*108*	*48*

ii) The participant whose proposal is chosen as the final food decision receives 11 points. In case more than one participant proposed the final food decision, each of them gets the 11 points with equal probability.

For our example where the proposal by P0 was chosen as the final food decision, participants' total points are:

Points for:	*P0*	*P5*	*P10*
From:			
Food Decision, 12*(10-Distance)	*72*	*108*	*48*
Votes	*11*	*0*	*0*
Total	*83*	*108*	*48*

SUMMARY

(1) You will play 5 series of 5 games. In total 25 games.

(2) In each series of 5 games, you belong to a group of 3 participants, and you are assigned to one of the 3 food preferences (P0, P5, or P10). Your group and preference will remain the same for the 5 games. After these 5 games, groups and preferences are randomly reshuffled.

(3) For each game, you make a food proposal, but you do not know how many food portions other participants will propose.

(4) The friends played by the computer vote for the food proposal that is the closest from their food preference. Their votes determine the final food decision.

(5) You receive points depending on the distance between your food preference and the final food decision. The closest the decision to your preference the more points you get. You also receive some points if your proposal gets the most votes. You see the full results on your screen.

(6) After all 25 games, the computer randomly selects 1 game. The points you gained at this precise game will be converted into money so that 10 points=0.7£

S1E. INSTRUCTIONS (2 participants and PR, Treatment 5)

Thank you for agreeing to participate in this research experiment. It should last around 1 hour. The sum of money you will earn during the session will be given privately at the end. From now until the end of the experiment you cannot talk to any other participant. If you have a question, please raise your hand and I will answer your questions privately.

This experiment consists of 5 series of 5 games, so 25 games in total. For each of the series, you will be randomly assigned into a group of 2 participants. You will play with the participants of your group for 5 games, and then the groups will be reshuffled randomly.

In each game, you will be able to gain some points depending on your decision and the decision of the other group participants. At the end of the experiment, the computer will randomly select 1 out of 25 games. The points you gained at this precise game will be converted into money, so that 10 points=0.7£

THE GAME

Each game is a simulation of a friend reunion and the decision of the amount of food that should be prepared. In each group, each of the 2 participants propose how many food portions should be prepared. Then, 11 friends -played by the computer- vote for one of the proposals and the final food decision is taken.

The friends -played by the computer- have a preference for food portions so that Friend F0 prefers 0 portions, Friend F1 prefers 1 portion, Friend F3 prefers 3 portions, etc.:

Friend	F0	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
Food preference	0	1	2	3	4	5	6	7	8	9	10

As a participant, you also have a personal preference regarding the number of food portions. In each group Participant P0 prefers 0 portions, and Participant P10 prefers 10 portions:

Participant	P0										P10
Food preference	0	1	2	3	4	5	6	7	8	9	10

Your preference is randomly assigned to you by the computer. You keep this preference for each series of 5 games and then you are given a new preference.

PROPOSALS AND VOTES

You make a proposal about the number of food portions you plan to have at the reunion. This can be any number between 0 and 10 portions.

You make your proposal simultaneously with the other proposer, so that you do not know what he/she is proposing when you make your proposal.

The friends -played by the computer- then vote for one of the food proposals. These votes are automatic and follow a simple logic: friends vote for the food proposal that is the closest to their food preference. In case a friend is equally close from 2 proposals, each proposal receives 1/2 vote. Similarly, if 2 proposals are the same, the votes they receive will be divided by 2.

For example, imagine that P0 proposed 4 food portions, and P10 proposed 5 food portions. P0 gets 5 votes, and P10 gets 6 votes as follows:

Food proposal(s) by						*P0*	*P10*					
Food quantity		*0*	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*
Friends		*F0*	*F1*	*F2*	*F3*	*F4*	*F5*	*F6*	*F7*	*F8*	*F9*	*F10*
	Total											
Votes for P0	***5***	*1*	*1*	*1*	*1*	*1*	*0*	*0*	*0*	*0*	*0*	*0*
Votes for P10	***6***	*0*	*0*	*0*	*0*	*0*	*1*	*1*	*1*	*1*	*1*	*1*

FINAL FOOD DECISION

The friends' votes determine the number of food portions that will be prepared for the reunion. The final food decision is calculated as follows and food portions are rounded to the closest integer:

$$\text{Final food} = \frac{(\text{votes for P0}) * (\text{food of P0}) \ + (\text{votes for P10}) * (\text{food of P10})}{11}$$

In the above example, the final number of food portions is:

$$\text{Final food decision} = \frac{(5 \text{ votes}) * (4 \text{ portions}) + (6\ votes) * (5\ portions)}{11} = 4.54 \approx 5$$

POINTS

Each of you gets some points depending on:

i) The **distance** between your preferred food quantity and the final food decision.
ii) The number of **votes** you got.

i) All participants, get some points depending on how distant is their food preference (0 or 10) from the final number of food portions. For example, if you are participant P0 with a preference for 0 portions and the final food decision is 5 then your distance from the decision is 5. The smaller this distance, the more points you get as follows:

Points from food decision = 12 * [10 – (Distance)]

In the above example:

Participants:	*P0*	*P10*
Food preference	*0*	*10*
Final food	*5*	*5*
Distance	*5*	*5*
Points from Food Decision: 12*(10-Distance)	*60*	*60*

ii) All participants get additional points equal to their votes.

For our example, participants' total points are:

Points for:	*P0*	*P10*
From:		
Food Decision, 12*(10-Distance)	*60*	*60*
Votes	*5*	*6*
Total	*65*	*66*

SUMMARY

(1) You will play 5 series of 5 games. In total 25 games.

(2) In each series of 5 games, you belong to a group of 2 participants, and you are assigned to one of the 2 food preferences (P0 or P10). Your group and preference will remain the same for the 5 games. After these 5 games, groups and preferences are randomly reshuffled.

(3) For each game, you make a food proposal, but you do not know how many food portions other participants will propose.

(4) The friends played by the computer vote for the food proposal that is the closest from their food preference. Their votes determine the final food decision.

(5) You receive points depending on the distance between your food preference and the final food decision. The closest the decision to your preference the more points you get. You also receive some points from the votes you got. You see the full results on your screen.

(6) After all 25 games, the computer randomly selects 1 game. The points you gained at this precise game will be converted into money so that 10 points=0.7£

S1F. INSTRUCTIONS (2 participants and Plurality, Treatment 6)

Thank you for agreeing to participate in this research experiment. It should last around 1 hour. The sum of money you will earn during the session will be given privately at the end. From now until the end of the experiment you cannot talk to any other participant. If you have a question, please raise your hand and I will answer your questions privately.

This experiment consists of 5 series of 5 games, so 25 games in total. For each of the series, you will be randomly assigned into a group of 2 participants. You will play with the participants of your group for 5 games, and then the groups will be reshuffled randomly.

In each game, you will be able to gain some points depending on your decision and the decision of the other group participants. At the end of the experiment, the computer will randomly select 1 out of 25 games. The points you gained at this precise game will be converted into money, so that 10 points=0.7£

THE GAME

Each game is a simulation of a friend reunion and the decision of the amount of food that should be prepared. In each group, each of the 2 participants propose how many food portions should be prepared. Then, 11 friends -played by the computer- vote for one of the proposals and the final food decision is taken.

The friends -played by the computer- have a preference for food portions so that Friend F0 prefers 0 portions, Friend F1 prefers 1 portion, Friend F3 prefers 3 portions, etc.:

Friend	F0	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
Food preference	0	1	2	3	4	5	6	7	8	9	10

As a participant, you also have a personal preference regarding the number of food portions. In each group Participant P0 prefers 0 portions, and Participant P10 prefers 10 portions:

Participant	P0										P10
Food preference	0	1	2	3	4	5	6	7	8	9	10

Your preference is randomly assigned to you by the computer. You keep this preference for each series of 5 games and then you are given a new preference.

PROPOSALS AND VOTES

You make a proposal about the number of food portions you plan to have at the reunion. This can be any number between 0 and 10 portions.

You make your proposal simultaneously with the other proposer, so that you do not know what he/she is proposing when you make your proposal.

The friends -played by the computer- then vote for one of the food proposals. These votes are automatic and follow a simple logic: friends vote for the food proposal that is the closest to their food preference. In case a friend is equally close from 2 proposals, each proposal receives 1/2 vote. Similarly, if 2 proposals are the same, the votes they receive will be divided by 2.

For example, imagine that P0 proposed 4 food portions, and P10 proposed 5 food portions. P0 gets 5 votes, and P10 gets 6 votes as follows:

Food proposal(s) by						*P0*	*P10*					
Food quantity		*0*	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*
Friends		*F0*	*F1*	*F2*	*F3*	*F4*	*F5*	*F6*	*F7*	*F8*	*F9*	*F10*
	Total											
Votes for P0	***5***	*1*	*1*	*1*	*1*	*1*	*0*	*0*	*0*	*0*	*0*	*0*
Votes for P10	***6***	*0*	*0*	*0*	*0*	*0*	*1*	*1*	*1*	*1*	*1*	*1*

FINAL FOOD DECISION

The friends' votes determine the number of food portions that will be prepared for the reunion. **The final food decision is the proposal that gets most votes.**

In the above example, the final number of food portions is 5 because this is the proposal that gets most votes (6 votes).

Note that if there is a tie (two or more proposals obtains the same number of votes), the computer will decide upon the winning food proposal by choosing the less extreme one among the tied proposals, that is the one that is the further away from 0 or 10. In case, the tied food proposals are equally extreme, the computer will randomly choose the winning food proposal among them.

POINTS

Each of you gets some points depending on:

i) The **distance** between your preferred food quantity and the final food decision.
ii) The number of **votes** you got.

i) All participants, get some points depending on how distant is their food preference (0 or 10) from the final number of food portions. For example, if you are participant P0 with a preference for 0 portions and the final food decision is 5 then your distance from the decision is 5. The smaller this distance, the more points you get as follows:

Points from food decision = 12 * [10 – (Distance)]

In the above example:

Participants:	*P0*	*P10*
Food preference	*0*	*10*
Final food	*5*	*5*
Distance	*5*	*5*
Points from Food Decision: 12*(10-Distance)	*60*	*60*

ii) The participant whose proposal is chosen as the final food decision receives 11 points. In case more than one participant proposed the final food decision, each of them gets the 11 points with equal probability.
For our example the and proposal by P10 was chosen as the final food decision, participants' total points are:

Points for:	*P0*	*P10*
From:		
Food Decision, 12*(10-Distance)	*60*	*60*
Votes	*0*	*11*
Total	*60*	*71*

SUMMARY

(1) You will play 5 series of 5 games. In total 25 games.

(2) In each series of 5 games, you belong to a group of 2 participants, and you are assigned to one of the 2 food preferences (P0 or P10). Your group and preference will remain the same for the 5 games. After these 5 games, groups and preferences are randomly reshuffled.

(3) For each game, you make a food proposal, but you do not know how many food portions other participants will propose.

(4) The friends played by the computer vote for the food proposal that is the closest from their food preference. Their votes determine the final food decision.

(5) You receive points depending on the distance between your food preference and the final food decision. The closest the decision to your preference the more points you get. You also receive some points if your proposal is the one with most votes. You see the full results on your screen.

(6) After all 25 games, the computer randomly selects 1 game. The points you gained at this precise game will be converted into money so that 10 points=0.7£

S2. Pre-experiment quiz questions

S2A. Question 1 (for T1/T2)

Is the following statement true or false: "If you do not make any food proposal, you cannot receive any points."

True
False

Correct/Incorrect. You can receive points depending on (1) the number of votes you receive from friends if you make a proposal, and (2) the distance between your food preference and the final number of food portions. Making a proposal costs you 2 points. However, even if you do not make a food proposal, you will receive points because of (2).

S2B. Question 2 (for all treatments)

Which of these two can give you more points?

A lot of votes from friends
A short distance between you and the final number of food portions

Correct/Incorrect. The number of points you can receive from the votes of your friends = number of votes [is either 0 (if you lose) or 11 (if you win)]. You can thus receive between 0 and 11 points. The number of points you can receive from the distance between you and the final number of food portions = 12 * [10 – (Distance)]. You can thus receive between 0 and 120 points.

S2C. Question 3 (for T1/T3/T5)

Imagine participants P0 and P10 make the following proposals:

Food proposal(s)		*P0*	*P10*								
Food quantity		*0*	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*
Friends		*F0*	*F1*	*F2*	*F3*	*F4*	*F5*	*F6*	*F7*	*F8*	*F9*	*F10*
	Total											
Votes for P0	***1***	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Votes for P5	***0***	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Votes for P10	***10***	*0*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*

What is the final number of food portions?

0
0.5
1

Correct/Incorrect. Final food = [(1 vote) * (0 portion) + (10 votes) * (1 portion)]/11 = 0.9 ≈ 1

S2D. Question 3 (for T2/T4/T6)

Imagine participants P0 and P10 make the following proposals:

Food proposal(s)		*P0*	*P10*								
Food quantity		*0*	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*
Friends		*F0*	*F1*	*F2*	*F3*	*F4*	*F5*	*F6*	*F7*	*F8*	*F9*	*F10*
	Total											
Votes for P0	***1***	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Votes for P5	***0***	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Votes for P10	***10***	*0*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*

What is the final number of food portions?

0
0.5
1

Correct/Incorrect. Final food = Proposal of the participant with most votes = 1

S2E. Question 4 (for all treatments)

Imagine participants P0 and P10 make the following proposals:

Food proposal(s)		*P0*	*P10*								
Food quantity		*0*	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*
Friends		*F0*	*F1*	*F2*	*F3*	*F4*	*F5*	*F6*	*F7*	*F8*	*F9*	*F10*
	Total											
Votes for P0	***1***	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Votes for P5	***0***	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Votes for P10	***10***	*0*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*

We know that the final food portion is 1. What is the distance between P10 and this final food portion?

0
1
9

Correct/Incorrect.
P10 has a food preference of 10, the distance from final food portion (=1) is then 9. The points P10 gets from the Distance = 12 * [10 – 9] = 12.

S2E. Question 5 (for T1)

Imagine participants P0 and P10 make the following proposals:

Food proposal(s)		*P0*	*P10*								
Food quantity		*0*	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*
Friends		*F0*	*F1*	*F2*	*F3*	*F4*	*F5*	*F6*	*F7*	*F8*	*F9*	*F10*
	Total											
Votes for P0	***1***	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Votes for P5	***0***	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Votes for P10	***10***	*0*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*

We know that P10 gets 12 points because of their distance to the final food portion. How many extra points P10 get because of the votes received and cost of entry?

-2
10 (11)
8 (9)

Correct/Incorrect.
P10 receives 10 votes (+10 points), and pays the cost of entry (-2 points). In total, that makes 8 points. [P10 receives 10 votes, and wins (+11 points), and pays the cost of entry (-2 points). In total, that makes 9 points.]

S2F. Question 5 (for T3/T4/T5/T6)

Imagine participants P0 and P10 make the following proposals:

Food proposal(s)		*P0*	*P10*								
Food quantity		*0*	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*
Friends		*F0*	*F1*	*F2*	*F3*	*F4*	*F5*	*F6*	*F7*	*F8*	*F9*	*F10*
	Total											
Votes for P0	***1***	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Votes for P5	***0***	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Votes for P10	***10***	*0*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*

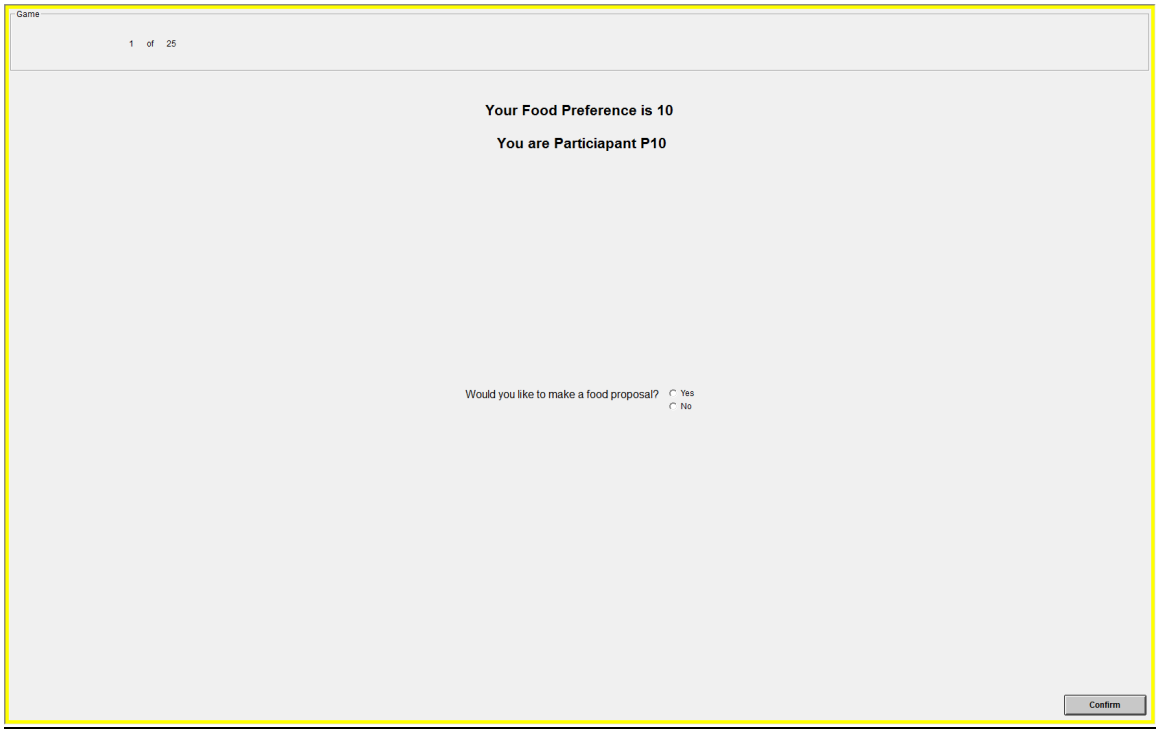
We know that P10 gets 12 points because of their distance to the final food portion. How many extra points P10 get because of the votes received?

-2
10 (11)
8

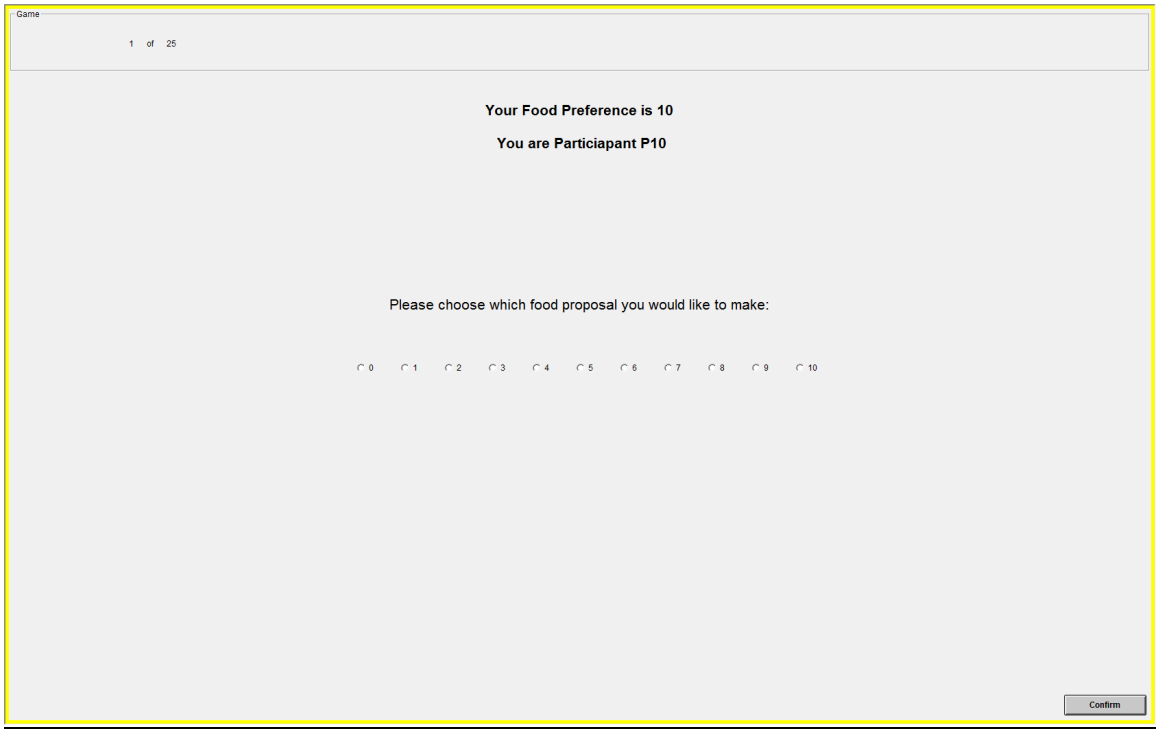
Correct/Incorrect.
P10 receives 10 votes (+10 points) [P10 receives 10 votes, and wins (+11 points)]

S3. Ztree screenshots

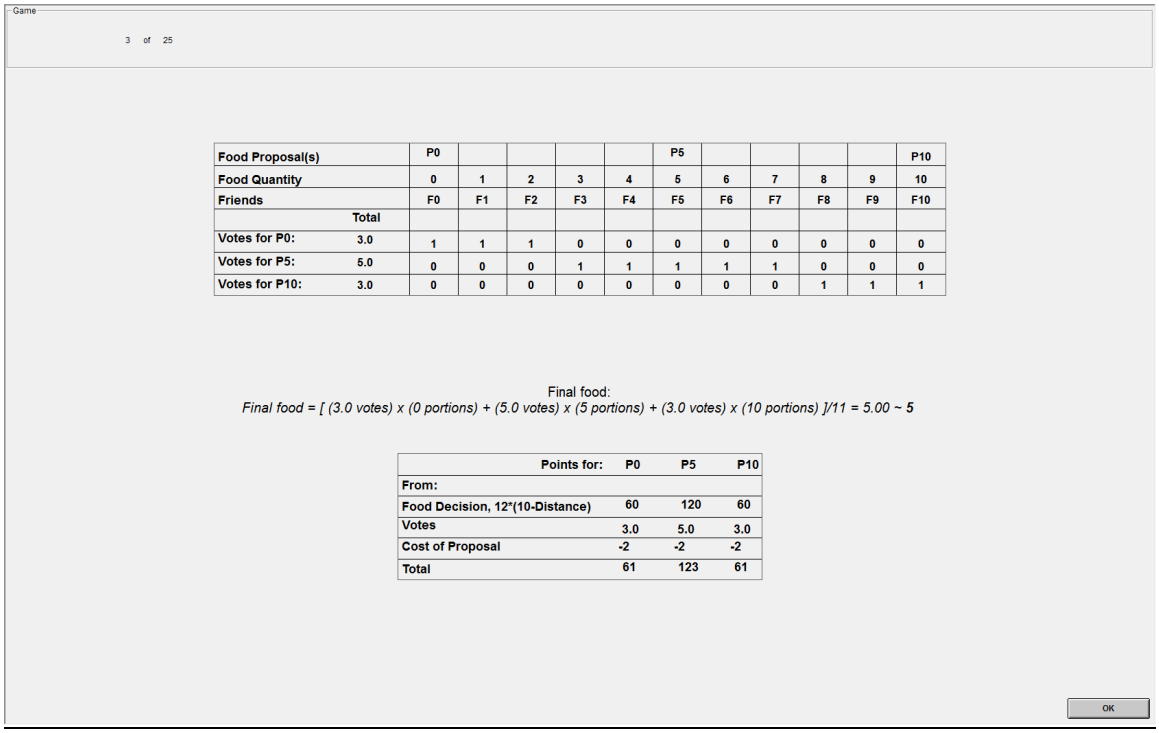
S3A. Shot of decision screen at first stage (for T1/T2)



S3B. Shot of decision screen at second stage (for all treatments)

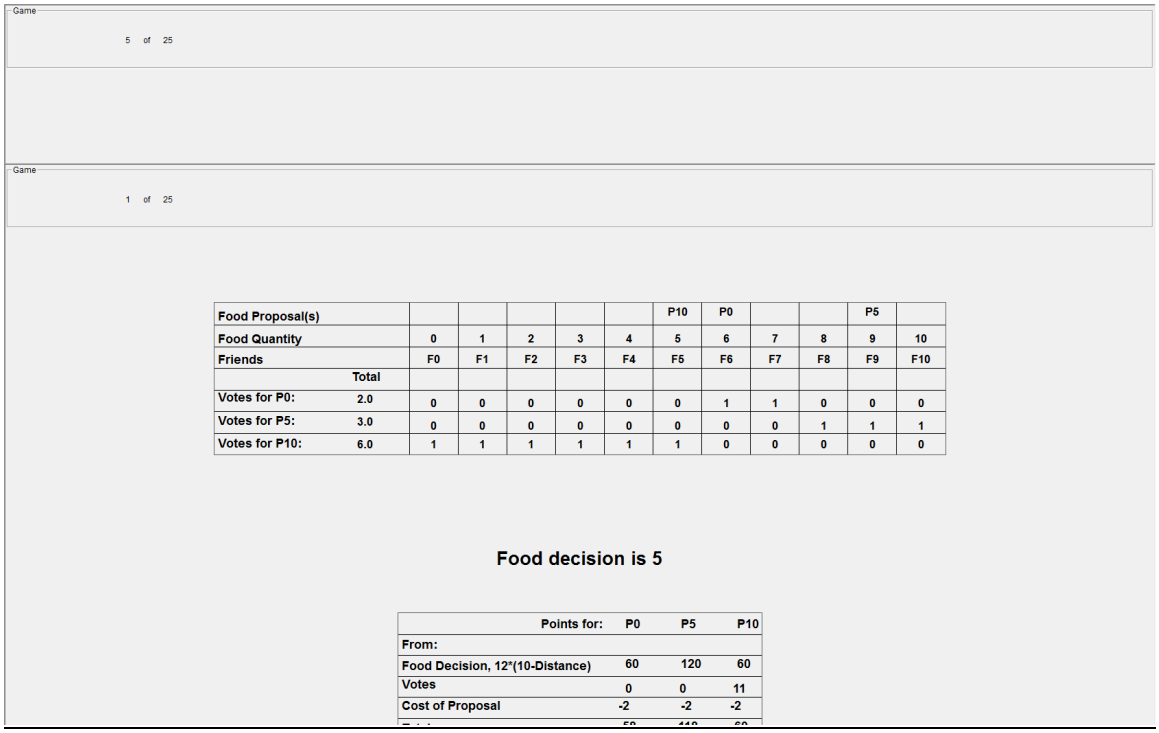


S3C. Shot of post-election feedback (PR, for T1/T3/T5)



Note: This screenshot is from T1. The results screen for T3 and T5, is the same except that there is no line for Cost of Proposal.

S3D. Shot of post-election feedback (plurality, T2/T4/T6)



Food Proposal(s)							P10	P0			P5	
Food Quantity		0	1	2	3	4	5	6	7	8	9	10
Friends		F0	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
	Total											
Votes for P0:	2.0	0	0	0	0	0	0	1	1	0	0	0
Votes for P5:	3.0	0	0	0	0	0	0	0	0	1	1	1
Votes for P10:	6.0	1	1	1	1	1	1	0	0	0	0	0

Food decision is 5

Points for:	P0	P5	P10
From:			
Food Decision, 12*(10-Distance)	60	120	60
Votes	0	0	11
Cost of Proposal	-2	-2	-2

Note: This screenshot is from T2. The results screen for T4 and T6, is the same except that there is no line for Cost of Proposal.