Instructions

This is an experiment in the economics of decision making. Funding for this research has been provided by the Ohio State University. The instructions are simple, and if you follow them carefully and make good decisions you may earn a CONSIDERABLE AMOUNT OF MONEY which will be PAID TO YOU IN CASH at the end of the experiment.

1. In this experiment you will act as voters deciding between different policy proposals in a series of bargaining rounds. In each round you will be in a group of 3 voters. Proposals will be voted up or down (accepted or rejected) by majority rule; i.e., for proposals to pass they must get 2 or more votes.

2. A proposal consists of a location on a line between 0 and 100. Each voter has a different ideal location on the line. One way to think about this is that you are choosing a proposed location of a bus stop on a street in your neighborhood. The numbers 0 to 100 are locations along the street where the bus stop can be placed. Voters each have a different ideal location for the bus stop. In addition, each of them incurs a “walking cost” in terms of how far/hard it is for them to walk to the actual location from their ideal location.

3. There are three types of voters: T1 with an ideal location of 0, T2 with an ideal location of 33, and T3 with an ideal location of 100. Each voter has a payoff of 600 Francs which they would earn if the bus stop was located at their ideal point. The further the actual bus stop is from their ideal point the lower each voter’s payoff. The cost to each voter for deviations from their ideal point is a function of the distance from their ideal point multiplied by their unit walking cost (UWC). This is reflected in the figure below: T1 has an ideal location at 0 with a unit walking (UWC) cost of 1, so that if the location chosen was 10, T1’s total walking cost would be 10 (1*10) which would be subtracted from the 600 associated with T1’s ideal point. Similarly T2 has an ideal location at 33 with a UWC of 3 so that if the location chosen was 43, T2’s total walking cost would be 30 (3*10) which would be subtracted from the 600 associated with T2’s ideal point. And T3 has an ideal location at 100 with a UWC of 6, so that if the location chosen was 90, T3’s total walking cost would be 60 (6*10) which would be subtracted from the 600 associated with his/her ideal point.
To summarize: Payoffs to each of you for any given proposal depend on your ideal point, the distance between the proposed location from your ideal point, and your unit walking costs (UWC) according to the following payoff function:

\[
Payoff = 600 - UWC \times | ideal \, location - proposed \, location |
\]

Don’t worry about trying to calculate this – the computer will do it automatically for you. Note that for T2 it does not matter if the deviations are to the right or the left of their ideal point, the cost is the same.

4. In each round everyone will propose an ideal location with one proposal, selected at random, to be voted on. The proposal, your walking cost, and the walking costs for all other voters will be posted on your computer screens prior to voting.
   If the proposal passes (gets 2 or more votes) – we will move on to the next bargaining round.
   If the proposal is defeated (gets less than 2 votes), there will be a call for new proposals and the process will repeat itself. There is no direct cost to any player when a proposal is rejected. It just means the process will repeat itself until a proposal passes.

5. Player types will be determined randomly at the beginning of the experiment and will remain the same throughout the experiment.

6. At each stage in the bargaining process you will have 30 seconds to make your proposal after which you will be prompted to make a decision. You will also have 60 seconds to vote on the proposal chosen for your group.

7. There are a total of ____ voters in the room. In each round you will be assigned to one of ___ groups of three voters. Assignments to voting groups will vary randomly from round to round. However, in each round and in each group, one player will always be type 1, one will be type 2, and one will be type 3.

8. There will be a total of 16 rounds, one practice round and 15 rounds played for cash.

9. At the conclusion of the experiment, one of the 15 rounds played for cash will be randomly selected by computer, and the money distributed according to the proposal that passed in that round. Thus, in each round, you should treat it as the round that you will be paid off on. Francs will be converted into dollars the rate of 3 cents per franc. All payments will be in CASH. In addition, each of you will receive a $6 participation fee.

Are there any questions?
Example 1. Suppose Subject 3’s proposal is chosen for the group and he proposes a policy of 80. This would yield payoffs of 520 francs \((600 - 1|0 - 80|)\) for Type 1, 459 francs \((600 - 3|33 - 80|)\) for Type 2, and 480 francs \((600 - 6|100 - 80|)\) for Type 3. Now the votes could be *accept, accept, reject* – once again ordered by subject number – in which case the proposal would pass as it has a majority 2 of 3 votes. As such, if this round were paid off on each subject would get the converted dollar amounts from these payoffs.

Alternatively, the votes could be *accept, reject, reject* so the proposal does not receive a majority, and the round would go to the next stage. A new set of policy proposals would be called for, one of which would be selected at random to be voted on and the voting process repeats itself.

As you can see there are many possibilities here. What should you do? If we knew the answer to this question we would not have to conduct the experiment. You should do what you think is best.

We are going to start now – please wait for my instructions before doing anything. Also it’s important at this point not to talk to each other or to play with the computer/open up different browsers as this may crash the system which holds things up for everyone in the room. As you will see there are inevitably delays as we go along as we must wait for all groups to finish before moving to the next round – just think about your strategy for the proceedings at hand or deep philosophical thoughts or about where you would rather be with the money you will earn – just don’t play with the browser.

Also please turn you cell phones off at this point.
Sample of dry run for Policy game: **To be read by the experimenter**  

Policy Exp 10_10/Cash case

A. PUT THE FIRST TRANSPARANCY ON THE PROJECTOR. START THE DRY RUN. We will now conduct a practice bargaining round. This does not count for money. *Please do not do type anything in until we tell you to. This way we can keep everyone on the same page.*

B. This is the first screen you will see. The top part of the screen shows each voter’s ideal location for the “bus stop” along with their Unit Walking Costs. (*E points to this.*) Also you can see what your type is: 1, 2, or 3 (*point to bus stop line on this – note the YOU*).

C. Please ignore the column labeled Cash on your computer screens (*E points to this*). We will not be using this for now. Look down here where it says Location (*E points*). This is where you enter your proposed location for the bus stop. You can choose any number between 0 and 100 including your own preferred location. Numbers entered can be up to 2 decimal places. When you click the Show Payment button (*E points to this*) the proposed location will show up on the 0-100 line at the top of your screen (*E points*). The computer screen will also show the potential impact of your policy prescription on everyone’s payoffs (including your own) under the Location Payoff column which is 600 minus each voter’s walking costs (*E points to this*), with Total Payoffs shown under the right hand most column. *Try a couple of values now for a minute or so.* To change your proposed Location just go back into the Location box – erase the old number and put a new one in and click on the Show Payment button again. (*E waits for abt a minute here.*) OK everyone tried a few options? Any questions?

OK – please pick a location now. To do this after you’ve entered your Location and clicked the Show Payment button – click on the OK button to confirm your choice (*E points to this.*)

[**Note you can change your allocation at any time prior to clicking on the OK box** –]

PUT THE SECOND TRANSPARANCY ON THE PROJECTOR. This is similar to your second screen. Please wait for my instructions before voting. At the top of the screen the location you are voting on is shown on the Location line (*E points to this*) along with your walking cost and whose proposal was chosen. (The exact location is shown next to Location, just above where your payoff is calculated - *E points to this*). Walking costs for the proposed location for each type of voter are shown under the Location Payoff (the negative numbers) with total payoffs on the right hand most side of the screen. (*E points to each spot as he/she goes along*). Your own computer screens will show the Proposed location picked by one member of your three person group.  (The values on these sample screens are just for illustration and not intended to suggest what you should do.) Remember the proposal you will be voting on may not be your proposal. If it is not your proposal it means you were not selected to be the proposer for this round.

You vote on the proposal by clicking Accept or Reject (*E points to this.*)

Now please reject this proposal. (**Remember, this is just a dry run to get you used to seeing the screen layouts.**)  

When we play for cash it is strictly up to you to decide what to do.) Remember you must always click either the reject or accept box for you vote to be recorded.
D. PUT THE THIRD TRANSPARENCY ON THE PROJECTOR. This is what your third screen looks like. At the top of the screen it tells you how many in your group voted for the proposal and whether it was accepted or rejected. Also it shows how each person voted along with their payoffs (E points to this).

Look down near the bottom of this screen – the equation for calculating your payoffs is shown there. This tells you exactly how we are calculating your walking costs. Any questions about this?

PUT FOURTH TRANSPARENCY UP – REPEAT OF THE PROPOSAL SCREEN: Since the proposal was rejected, the whole process starts over again. You will get a new proposal screen to work with just like the old one. (There is no penalty to starting over again.) Again, one of the proposals in your group will be chosen randomly to be voted on. Once again all proposals have an equally likely chance to be voted on.

Please make a new proposed allocation and accept it. (Remember, this is just a dry run to get you used to seeing the screen layouts. When we play for cash it is strictly up to you to decide what to do.)

E. PUT THE 5th TRANSPARANCY ON THE PROJECTOR. Again, the top of the screen tells you how many in your group voted for the proposal and whether it was accepted or rejected. It also shows how each person voted along with their payoffs (E points to this).

Results from the current and previously completed bargaining rounds are reported at the bottom of this screen. Period shows the bargaining round in question followed by your type. Next is shown the location of the “bus stop” for this period. Next is shown the votes of the different player types (Yes or NO; again ignore the Cash categories as they will not be used here), followed by your payoff for this period. This information will be provided for in each period and for all previous periods.

After you have had a chance to absorb these results, you must click CONTINUE to move on to a new bargaining round. Note that a new bargaining round can NOT start until all the groups have finished – so you may see a please wait screen while this happens. This is necessary as the voters assigned to your group change randomly from round to round under the constraint that each group has only one type 1 player, 1 type 2 and 1 type 3.

Remember you are NOT to speak to each other or play with your browsers while the experiment is in progress.

Are there any questions? One question that has been raised in past sessions is “what should I be trying to do in this set-up.” What we can tell you is that the closer the actual location is to your ideal location the more money you will earn. But at the same time in making your proposals, you must get at least one other player to vote for your proposal for it to pass. There are no dictators in this experiment!
OK – we will have two practice rounds after which we will change things a bit and play for cash. Please treat the dry runs seriously as the experience should help you when we start to play for cash.
This Proposal has passed

<table>
<thead>
<tr>
<th>Vote</th>
<th>Cash</th>
<th>Policy Payoff</th>
<th>Total Payoff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject #1: Yes</td>
<td>0.0</td>
<td>599.0</td>
<td>= 599.0</td>
</tr>
<tr>
<td>You: Yes</td>
<td>0.0</td>
<td>504.0</td>
<td>= 504.0</td>
</tr>
<tr>
<td>Subject #3: Yes</td>
<td>0.0</td>
<td>6.0</td>
<td>= 6.0</td>
</tr>
</tbody>
</table>

Location = 1.0
Number of positive votes = 3
Your profit this period is = 504
This Proposal has not passed

<table>
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<tr>
<th>Vote</th>
<th>Cash</th>
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<th>Total Payoff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject #1: Yes</td>
<td>0.0</td>
<td>501.0</td>
<td>501.0</td>
</tr>
<tr>
<td>You: No</td>
<td>0.0</td>
<td>402.0</td>
<td>402.0</td>
</tr>
<tr>
<td>Subject #3: No</td>
<td>0.0</td>
<td>594.0</td>
<td>594.0</td>
</tr>
</tbody>
</table>

Location = 99
Number of positive votes = 1
Please wait for the experiment to continue
Your subject id is: 2

General Information

Your Type: 2
Period: 1
Stage: 1

The proposal got 1 vote and was rejected

**Proposal**

<table>
<thead>
<tr>
<th>Vote</th>
<th>Location Payoff</th>
<th>Cash</th>
<th>Total Payoff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type 1 (0): Yes</td>
<td>600 - 99.0</td>
<td>0.0</td>
<td>= 501.0</td>
</tr>
<tr>
<td>You (33): No</td>
<td>600 - 198.0</td>
<td>0.0</td>
<td>= 402.0</td>
</tr>
<tr>
<td>Type 3 (100): No</td>
<td>600 - 6.0</td>
<td>0.0</td>
<td>= 594.0</td>
</tr>
</tbody>
</table>

Location: 99

**Your payoff**

\[
\text{Total Payoff} = 600 - \text{Unit Walking Cost} \times (\text{ideal location} - \text{proposed location}) + \text{cash}
\]

\[
= 600 - 3.0 \times 33 + 0 = 402.0
\]

Continue
Your subject id is: 2

General Information

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Your</td>
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<td>Type</td>
<td>1</td>
</tr>
<tr>
<td>Period</td>
<td>1</td>
</tr>
<tr>
<td>Stage</td>
<td>1</td>
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</table>

proposed (by T1)

walking cost = -198

Proposal

<table>
<thead>
<tr>
<th>Location Payoff</th>
<th>Cash</th>
<th>Total Payoff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type 1 (0):</td>
<td>600</td>
<td>501.0</td>
</tr>
<tr>
<td>You (33):</td>
<td>600</td>
<td>402.0</td>
</tr>
<tr>
<td>Type 3 (100):</td>
<td>600</td>
<td>594.0</td>
</tr>
</tbody>
</table>

Location 99

Your payoff

600 - Unit Walking Cost x | ideal location - proposed location | + cash | Total Payoff
600 3.0 33 99 0 402.0

Somebody else's proposal has been selected
The proposer's type is 1
What is your vote on the proposal?

Reject  Accept
Your subject id is: 2

General Information

<table>
<thead>
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</thead>
<tbody>
<tr>
<td>Your</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

Proposal

Location Payoff

<table>
<thead>
<tr>
<th>Type 1 (0):</th>
<th>600 -600.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>You (33):</td>
<td>600 -600.0</td>
</tr>
<tr>
<td>Type 3 (100):</td>
<td>600 -600.0</td>
</tr>
</tbody>
</table>

Cash

Total Payoff

<table>
<thead>
<tr>
<th>= -1.0</th>
</tr>
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<tbody>
<tr>
<td>= -1.0</td>
</tr>
<tr>
<td>= -1.0</td>
</tr>
</tbody>
</table>

Amount of Cash Left: 0

Location

Your payoff

<table>
<thead>
<tr>
<th>Unit Walking Cost</th>
<th>x</th>
<th>ideal location</th>
<th>- proposed location</th>
<th>+ cash</th>
<th>Total Payoff</th>
</tr>
</thead>
<tbody>
<tr>
<td>600</td>
<td>3.0</td>
<td>33</td>
<td>-1</td>
<td>-1</td>
<td>= -1.0</td>
</tr>
</tbody>
</table>

Enter your proposal

Show Payment

OK
This Proposal has passed

<table>
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<td>599.0</td>
</tr>
<tr>
<td>You:</td>
<td>Yes</td>
<td>0.0</td>
<td>504.0</td>
<td>504.0</td>
</tr>
<tr>
<td>Subject #3:</td>
<td>Yes</td>
<td>0.0</td>
<td>6.0</td>
<td>6.0</td>
</tr>
</tbody>
</table>

Location = 1

Number of positive votes = 3

Please wait for the experiment to continue
**Crossover Instructions**

OK – we are going to play for money now. In doing so you ideal location as well as your unit walking costs will remain the same. However, in proposing a location, you will have 100 francs at your disposal to allocate to voters (that’s the “cash” column on your computer screens). Your only restriction in allocating this cash is that you cannot allocate more than the 100 francs or less than the 100 francs.

This cash will be added to each player’s location payoff. That is the payoff function is now

\[
\text{Payoff} = 600 - \text{UWC} \times | \text{ideal location} - \text{proposed location} | + \text{cash}
\]

Notice that the cash has the same value for all Types, while the Unit Walking Cost continue to differ between player Types. For example, suppose the proposed location is 10 away from Type 1’s ideal location and Type 1 is allocated 50 francs. The Type 1’s total payoff will be:

Type 1’s payoff = 600 – 1 (10) + 50 = 640.

Similarly, suppose the proposed location is 10 away from Type 2’s ideal location and Type 2 is allocated 50 francs. The Type 2’s total payoff will be:

Type 2’s payoff = 600 – 3 (10) + 50 = 620.

And if the proposed location is 10 away from Type 3’s ideal location and Type 3 is allocated 50 francs. The Type 3’s total payoff will be:

Type 3’s payoff = 600 – 6 (10) + 50 = 590.

As before it will take 2 out of 3 votes for a proposal to pass. If the proposal does not pass we will ask for new proposals and this process will repeat itself until a proposal passes.

In short, the only change to what you have been doing so far is that proposers have 100 francs in cash at their disposal to help influence votes in favor of their proposal.

We will start playing for money right away. However, before making a binding proposal – play around a bit with some proposed allocations to see the impact on player’s payoffs of adding the cash. Remember, all you need to do to see total payoffs for a proposed allocation is to click the Show Payment button.
OK has everyone had a chance try out a couple of allocations? Are there any questions?

We’ll play a total of 15 rounds for money this way.

At the conclusion of the experiment, one of these 15 rounds will be randomly selected by computer, and the money distributed according to the proposal that passed in that round. Thus, in each round, you should treat it as the round that you will be paid off on. Francs will be converted into dollars the rate of 3 cents per franc. All payments will be in CASH. In addition, each of you will receive a $6 participation fee.