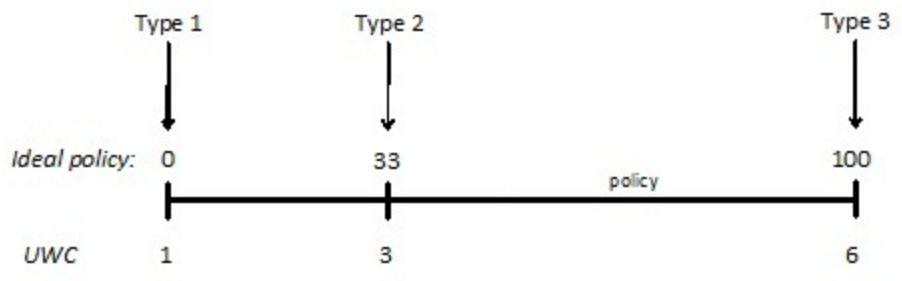
Instructions

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 700 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 700 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 700 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 700 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:

$$Payoff = 700 - UWC\ x\ |\ ideal\ location - proposed\ location\ |$$

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 60 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 by type 2, and one will be type 3.
8. We will have three practice rounds like this. After that we will add one little twist and then start to play for cash. The first practice round will simply walk you through the software.

Are there any questions?

An example might help to clarify the voting and payoff process. The example is not intended to be realistic, just to give you an idea how the process works.

Example 1. Suppose Subject 3's proposal is chosen for the group and he proposes a policy of 80. This would yield payoffs of 620 francs (700 – 1*| 0 – 80 |) for Type 1, 559 francs (700 – 3*| 33 – 80 |) for Type 2, and 580 francs (700 – 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.

Crossover Instructions

OK – we are going to play for money now. In doing so, your ideal location as well as your unit walking cost will remain the same. Now when you propose a location, however, you must also propose payments from each voter to pay for the cost of the bus stop (that is the "construction payment" column on your computer screen). The bus stop costs 200 francs to build. The maximum payment from any single voter is 100, and you must propose total construction payments of 200. Construction payments will be subtracted from each player's payoff. That is, the payoff function is now

$$Payoff = 700 - UWC \times | \text{ideal location} - \text{proposed location} | - \text{construction payment}$$

For example, suppose the proposed location is 10 away from Type 1's ideal location and Type 1's construction payment is 50 francs. Then Type 1's total payoff will be:

Type 1's payoff = 700 – 1 (10) - 50 = 640.

Similarly, suppose the proposed location is 10 away from Type 2's ideal location and Type 2's construction payment is 50 francs. Then Type 2's total payoff will be:

Type 2's payoff = 700 – 3 (10) - 50 = 620.

Finally, suppose the proposed location is 10 away from Type 3's ideal location and Type 3's construction payment is 50 francs. Then Type 3's total payoff will be:

Type 3's payoff = 700 – 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 must also propose construction payments from each voter in order to build the bus stop. These construction payments must sum to 200, with no voter's construction payment greater than 100 ECUs.

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 players' payoffs resulting from the construction payments. 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.

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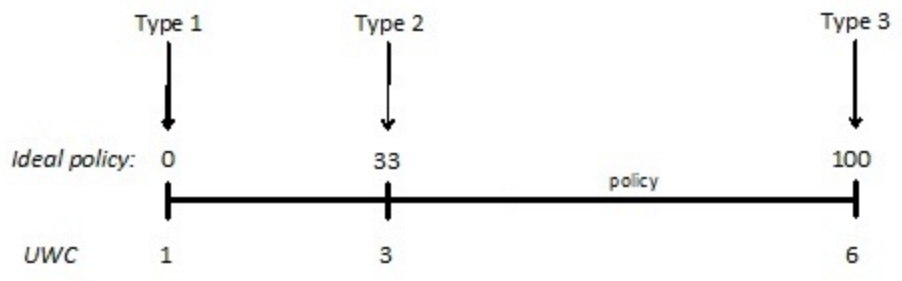
1. In this experiment you will act as voters deciding between different policy proposals in a series of bargaining rounds. In each round you will be in a group of 3 voters. Proposals will be voted up or down (accepted or rejected) by majority rule; i.e., for proposals to pass they must get 2 or more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

$$Payoff = 600 - UWC\ x\ |\ ideal\ location - proposed\ location\ |$$

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. Further any negative payoffs associated with the location chosen will be truncated to zero.

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 by type 2, and one will be type 3.
8. We will have three practice rounds like this. After that we will add one little twist and then start to play for cash. The first practice round will simply walk you through the software.

Are there any questions?

An example might help to clarify the voting and payoff process. The example is not intended to be realistic, just to give you an idea how the process works.

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.

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Also please turn you cell phones off at this point.

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 to 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

$$Payoff = 600 - UWC\ x \mid ideal\ location - proposed\ location \mid + cash$$

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.