2/1/96

To Do:
1. paper and pencils for notes.

Computer Persuasion Experiment Instructions: Penalty For Lying

In the subject processing room:

Need a coin for example.
Need cash.
Check ID, Consent forms.
Pay on -time bonus.
Pay extras.
Enter each subject's name on a computer.

[Say to subjects before they enter the lab...]

We will now direct you to a computer terminal that has your name displayed on the screen. When you reach the terminal, please wait for instructions from us before touching the computer equipment. It is also important that you do not communicate with any other participant at any time during the experiment. Failure to follow these instructions will result in your removal from the experiment. So do not touch the computer equipment or speak to anyone else until we instruct you to do so.

[Pause**]**.

In the Lab

Enter Names
Press "Post Changes."
Open Each Machine.

Introduction

Welcome to the UCSD Political Science Experimental Lab. Today's experiment is part of a study on decision making. At the end of the experiment, we will pay you in cash for your participation. The amount we pay you depends on your decisions, the decisions of others, and chance. While we cannot guarantee that you will earn any specific amount, we can guarantee that if you are careful, make good decisions, and complete the experiment, then you can expect to earn between $20 and $60. Today's experiment will last no longer than 2 hours.

Along the way, you may have questions about the experiment. If you do, please raise your hand and one of *us* will assist you. The experiment will take place over a network that connects all of the computers in this room. You participate in the experiment by using your mouse to select options that will appear on your screen. Does everyone know how to use a mouse?

[If YES] Using your mouse, please press the OK button on your screen.

[If NO**]** You use the mouse to move the white arrow on the screen. You move the arrow by moving the mouse on the fabric pad that is in front of your terminal. To move the arrow to the top of the screen, you move the mouse up on the fabric pad. You can go ahead and try this now. To move the arrow on your screen to the left, you move the mouse to the left. When you get the arrow to the desired location on the screen, pressing the top left button on the mouse allows you to choose whatever option is underneath the arrow. So, for example, to press the OK button on your screen, use the mouse to move the arrow over the OK button, then press the left button on the mouse.

Now we are going to tell you how you can make some money. *You make money by predicting the outcomes of coin tosses*.

Experiment

As you can see on the top of your screen, you are a predictor. Your job, as a predictor, is to predict the outcomes of coin tosses. That is, you predict whether a fair coin will land on heads or tails.

Please direct your attention to the screen. You can see that for every correct prediction you make during the experiment, we pay you $1. If you make an incorrect prediction, then you earn nothing.

To see how the experiment works, please make a practice prediction by using your mouse to choose either Heads or Tails.

[Subjects predict Practice Toss.**]**

As you can see, the computer asks you to confirm your prediction. If you want to keep your current prediction, you can confirm your choice by selecting OK. To change your prediction select Cancel and make another prediction.

[Subjects confirm.**]**

As you can see, if you had predicted heads, then we would pay you $1. If you had predicted Tails, then you would have earned nothing for your prediction.

This experiment consists of 40 coin tosses. Therefore, if you predict every single coin toss correctly, then at the end of the experiment, we will pay you $40. However, if you get every coin toss wrong, you earn nothing.

Note that the outcome of each coin toss is generated randomly. Therefore, no one, *including* us, knows the result of any particular coin toss.

Throughout the experiment, we will vary the conditions under which you make predictions. In some conditions, it will be very easy to make correct predictions. In other conditions, it will be more difficult.

The first two coin tosses should be very easy to predict. This is true because, we are going to show you the result of the coin toss *before* we ask you to make your predictions.

[**READER:** Prompt screens to move to Toss 1.]

[Reader: Visibly look at one of the screens to see the coin toss result.**]**

As you can see on your screen, Toss 1 landed on Tails. Please make and confirm a prediction about the outcome of Toss 1.

[Subjects predict Toss 1.**]**

Now that everyone has made a prediction, you can see the payoff from your first prediction. If you predicted Tails, we will now pay you $1. If you predicted Heads, you now receive nothing for your prediction.

[Reader: Actually pay people, record the location of anyone who misses. Do not make such a record apparent to the subjects. 90 seconds to pay people.]

[**READER:** Prompt screens to move to Toss 2.]

[Reader: look at one of the screens in order to see the coin toss result**]**

As you can see, Toss 2 has landed on [result 2]. Please make your prediction.

[Subjects predict Toss 2.**]**

Now that everyone has made a prediction, you can see the payoff from your second prediction. If you predicted **[**result 2**]**, then we will now pay you $1. If you predicted [not result 2], then you get nothing for your prediction.

[Actually pay people, record the location of anyone who misses. Do not make such a record apparent to the subjects. 90 seconds to pay people.]

[READER: advance screen to move to **"await further instructions."]**

We now ask you to make four more predictions. Unlike before, however, you must make your prediction without being shown the coin toss result. Thus, the only difference between the previous tosses and the next four is that instead of being shown the coin toss result *before your prediction*, you only see a question mark on that part of your screen. To move the experiment along, we will reveal the rest of your earnings and pay you after the final coin toss. Remember that we pay you $1 for every correct prediction that you make, and nothing for every incorrect prediction.

[**READER:** Prompt screens to move to Toss 3.]

You may begin making predictions for Tosses 3, 4, 5, and 6. After you predict Toss 6, please wait for further instructions.

[Subjects predict Tosses 3 through 6.**]**

[Computer screens remain blank for following instructions until refer back to the screen.**]**

Please pay close attention to the following instructions. For the remaining Tosses, we add a simple but important change to the experiment. To earn more money, you must pass a quiz on the new instructions. In addition to the money we pay you for correct predictions, we will also pay you an additional dollar for each quiz question that you answer correctly. You get nothing for every quiz question that you answer incorrectly.

The change in the experiment is that, from now on, the computer will randomly selects one of you to see the outcome of the coin toss and send a report to the other subjects about it. We call that one person the coin toss reporter. The rest of you to continue to be predictors and will not be shown the coin toss result.

For a moment, I would like each of you to imagine that you are the reporter. As the reporter, your job is to send a one word report to the predictors about the result of the Toss. That is, we show you the coin toss result and you tell the predictors that the coin has landed on either "heads" or "tails." Then, the predictors make their predictions without knowing the true coin toss result.

For every participant who correctly predicts the result, you, the reporter, earn $1. For every participant who makes an incorrect prediction, you, the reporter, earn nothing for your prediction.

So, if all 9 predictors make correct predictions you earn $9. If only 2 predictors make correct predictions, you earn $2. If no one makes correct predictions, then you earn nothing.

As the reporter, it is totally up to you to send a true or false report. So, if the coin lands heads, you can tell the predictors that the coin landed on heads or tails. The predictors will never learn the true coin toss result.

Let's go through a quick example. Please focus your attention to the center of the room.

First, I toss the coin. **[**toss the coin.**]**

Then the reporter, who in this case is **[**PERSON**]**, is informed of the coin toss result. **[**show coin toss result to the reporter**]**.

Next, the reporter makes a report by saying that coin landed on either heads or tails. **[**Reporter announces a false report**]**.

The predictors then choose either heads or tails. During the experiment, the predictors will not be shown the coin toss result. For this example, however, we can tell you that the coin actually landed on _____. Thus, the reporter has made a false report.

Are there any questions?
[Answer questions.**]**

[READER: Prompt screens to move on to sample reporter screen.**]**

We will now run through a quick example using the computer terminals. All of your screens should now show a copy of what the reporter's screen will look like. Assume, for a moment, that you are the reporter -- the person whose job it is to send a report about the coin toss result to the predictors. Unlike the predictors, you see the coin toss result on the part of your screen labeled Coin result. You can see this next to arrow number 1. For this example, the coin has landed on Tails.

Next to arrow number 2, we inform you about the number of predictors. In this example, there are nine predictors. To the right of this, we describe both your and the predictors payoffs. Finally, arrow number 3 points at the buttons used to send the report. After sending the report, you will be asked to confirm it. Remember that as the reporter, you make whatever report you like and predictors never learn the true coin toss result.

Are there any questions?
[answer questions**]**

[READER: Prompt screens to move on to sample predictor screen.**]**

Now imagine that you are a predictor. Your job is exactly the same as in the previous trials. The only difference is that now the reporter sends you a report about the coin toss result. You can see on the top center of your screen that arrow number 1 points to this report. Your screen now also provides information about the number of predictors and the reporter's payoffs. As you know and can see next to arrow number 2, the reporter earns $1 every time you make a correct prediction and nothing when you predict incorrectly. We pay you as before -- $1 for a correct prediction and nothing for an incorrect prediction.

We will now give you a short quiz on the instructions. Each question will appear on your screen. You answer by selecting the button next to your choice. After each question, we inform you of the correct answer along with an explanation. Remember that we will pay you $1 for every correct quiz question you answer correctly.

Are there any questions?
[answer questions**]**

[Reader: Prompt screens to move on to quiz.**]**

We are now ready to resume the experiment. The computer has randomly selected one of you to be the reporter for the next three tosses.

The reporter is now seeing the coin toss result and can issue a report whenever he or she is ready. When the computer prompts you, please make a selection. Note that the experiment will continue without interruption until the end of Toss 9.

[**READER:** Prompt screens to move to toss 7.]

[Subjects predict Tosses 7 through 9.**]**

[Computer screens remain blank for following instructions until refer back to the screen.**]**

Please pay close attention to the following instructions. Like before, the instructions will be followed by a quiz where we pay you $1 for every question you answer correctly.

The next set of coin tosses differs from the previous set in one important way. This time the reporter makes more money when the predictors make *incorrect predictions*.

[READER: Prompt screens to move on to sample reporter screen.**]**

That is, the reporter makes $1 for every predictor who gets the coin toss wrong and nothing for every predictor who gets it right. So, for example, if the coin lands on heads, then the reporter makes $1 for every predictor who incorrectly predicts tails and nothing

for every predictor who correctly predicts heads. By contrast, each of the Z predictors continue to earn money as before, earning $1 for every correct prediction they make and nothing for every incorrect prediction.

So, if all Z predictors make incorrect predictions the reporter earns $Z and each of the predictors earns nothing. If only 2 predictors make incorrect predictions, then the reporter earns $2, the two predictors who predicted incorrectly earn nothing and the Z-2 predictors who got it right get $1 each. If all predictors make correct predictions, then the predictors get $1 each and the reporter earns nothing.

[READER: Prompt screens to move on to sample predictor screen.**]**

For predictors, the rules of the game remain the same -- you get $1 for every correct prediction you make. *Remember that the predictors do not observe the coin toss and that reporter can, but does not have to, tell the truth.* Are there any questions?

[answer questions**]**

We will now give you a short quiz on the instructions. Remember, we pay you $1 for every question you answer correctly.

[Reader: Prompt screens to move on to quiz.**]**

We are now ready to resume the experiment. *Remember and as stated on your screen, for the next ten tosses, the reporter makes $1 for every incorrect prediction that a predictor makes, while each predictor earns $1 for every correct prediction that they themselves make.*

The computer has randomly selected one of you to be the reporter for the next ten tosses. The reporter is now seeing the coin toss result and can issue a report whenever he or she is ready. When the computer prompts you, please make a prediction. Note that the experiment will continue without interruption until the end of Toss 19.

[**READER:** Prompt screens to move to toss 10.]

[Subjects predict Tosses 10 through 19.**]**

[Computer screens remain blank for following instructions until refer back to the screen.**]**

Please pay close attention to the following instructions. Like before, the instructions will be followed by a quiz where we pay you $1 for every question you answer correctly.

The next set of coin tosses differs from the previous set in one important way. For the next 10 coin tosses, false reports will cost the reporter $8.10 each, or 90 cents per

predictor. This cost does not affect how much predictors make; they get $1 for every correct prediction they make and nothing for every incorrect prediction.

This cost for making a false report also does not affect how much the reporter makes if the reporter tells the truth, he or she gets $1 for every incorrect prediction a predictor makes and nothing for every correct prediction. However, if the reporter makes a false report, then the cost for making a false report affects his payoff. To see exactly how this affects the reporter's payoffs, please look at your screen.

[READER: Prompt screens to move on to sample reporter screen.**]**

You can see that the reporter's screen is exactly the same as in previous trials except for two things. Next to arrow number 1, you are told that a false statement results in a fine of $.90 per predictor. Also, next to the report buttons, the screen shows the cost of sending each report. You can see this next to arrow number 2. Thus, in this example, you can see the coin has landed on heads. So, next to the report, heads, the column labeled Cost reports that it would cost nothing to send a report of Heads. This is the case because Heads would be a true report. Next to Tails, however, the cost is $.90 per predictor for a total of $8.10, as this report would be false.

What these costs mean is that if the reporter makes a false report and a predictor makes a *correct* prediction, then the reporter loses $.90 and the predictor gets $1.
If the reporter makes a false report and a predictor makes an *incorrect* prediction, then the reporter gets $.10 and the predictor gets nothing.

Furthermore, if all predictors make an incorrect prediction, then the reporter makes $9 if his or her report was true and $.90 if it was false. By contrast, if all predictors make a correct prediction, then the reporter makes nothing if his or her report was true and loses $8.10 if it was false; this is because of the $.90 per predictor cost for a false report.

One important thing to notice is that even with the cost of a false report, the reporter may earn more money from a false report than he or she does from a true report. Of course, it is also possible to earn more money from true reports than false reports--it all depends on what the predictors predict.

Are there any questions?
[answer questions.**]**

[READER: Prompt screens to move on to sample predictor screen.**]**

As before, no predictor can observe the coin toss. The only difference for the predictors is that they now know that the reporter is penalized $.90 per predictor for a false report. As you can see, the magnitude of the cost for making a false report is given at the top of each predictor's screen.

Are there any questions?

[answer questions.**]**

[READER: Prompt screens to move on to quiz.**]**

We will now give you a short quiz on the instructions. As before, we pay you $1 for every correct answer you give.

[**READER:** Prompt screens to move to toss 20.]

We are now ready to resume the experiment. The computer has randomly selected one of you to be the reporter for the next ten tosses. The reporter is now seeing the coin toss result and can issue a report whenever he or she is ready. When the computer prompts you, please make a prediction. Note that the experiment will continue without interruption until the end of Toss 29.

[Subjects predict Tosses 20 through 29.**]**

[Computer screens remain blank for following instructions until refer back to the screen.**]**

Please pay close attention to the following instructions. Like before, the instructions will be followed by a quiz where we pay you $1 for every question you answer correctly.

[READER: Prompt screens to move on to sample reporter screen.**]**

For the next 10 coin tosses, false reports will cost the reporter $9 each, or $1 per predictor. As before, this cost does not affect how much predictors make; they still get $1 for every correct prediction and nothing for every incorrect prediction. This cost for making a false report also does not affect how much the reporter makes if he tells the truth; he or she still gets $1 for every incorrect prediction a predictor makes and nothing for every correct prediction.

However, if the reporter makes a false report, then the cost for making a false report affects his payoff. To see exactly how this affects the reporter's payoffs, please look at your screen. You can see that if the reporter makes a false report and a predictor makes a *correct* prediction, then the reporter loses $1 and the predictor gets $1.
If the reporter makes a false report and a predictor makes an *incorrect* prediction, then the reporter gets nothing and the predictor gets nothing.

Are there any questions?

We will now give you a short quiz on the instructions. Remember, that we pay you $1 for every question that you answer correctly.

[READER: Prompt screens to move on to quiz.**]**

The computer has randomly selected one of you to be the reporter for the *final* ten tosses. The reporter is now seeing the coin toss result and can issue a report whenever he or she is ready. When the computer prompts you, please make a prediction. Note that the experiment will continue without interruption until the end of Toss 39.

[**READER:** Prompt screens to move to toss 30.]

[Subjects predict Tosses 30 through 39.**]**

[READER: stop the predictor at Toss 39].

For the final coin toss, we change the rules on last time. For this coin toss we return to the case where the reporter earns $1 for every predictor who makes a correct prediction and nothing for every reporter who makes an incorrect prediction. So for this final toss, if
if all 9 predictors make correct predictions, then the reporter earns $9 and the predictors earn $1 each. If only 2 predictors make correct predictions, then the reporter earns $2, the two predictors who made correct predictions earn $1 each and the seven reporters who made incorrect predictions earn nothing.

Will the reporter please issue a report and when the computer prompts you, will the predictions please make their final predictions.

[Subjects predict Toss 40.**]**

[Move to Final Screen - with total payoff and requiring a password.]

Conclusion

This concludes the experiment. We will now compute the results and your payoffs. While we are doing this, we would like you to fill out a post experimental questionnaire that we are now handing out. Please respond to each of the questions carefully. In a few moments, we will call each of you individually to collect your questionnaire and to pay you. At that time, you are free to go. Thanks again for your participation.

[Tabulate results and call up each participant individually to collect post experiment questionnaire and pay them. Give each participant a receipt (with their social security number) and business card.**]**