

Can Experimental Measures of Sensitivity to Social Pressure Predict Public Good Contribution? By Daniel John Zizzo and Piers Fleming

Sessions vary according to whether:

- *Order 0 vs Order 1*
- *NP vs P [not punishment vs punishment]*

Experimental Instructions

Introduction

This is an experiment on decision making. Please raise your hand if you have any questions at any point in the experiment.

There are six participants in the experiment. The experiment is divided into **five stages**. In each stage you will be randomly matched with another participant (the **coparticipant**). Decisions are made anonymously, and, as you move from a stage to the next, you will have no information identifying who you are matched with.

The computer determines whether, in the first four stages, you are a participant whose decisions have an impact on your earnings and those of your coparticipant, or whether you are not. In the fifth stage, both you and your coparticipant will be taking decisions affecting your earnings and those of your coparticipant.

During the experiment you and your coparticipants will receive experimental *points*. At the end of the experiment your earnings from each stage of the experiment will be added up by the computer and converted into pounds at the rate of 1 penny for each point.

[Order 0]

Stage 1 [Order 0, MDGI_h, instructions for the dictator]

You have been given an income of 45 points. Your coparticipant has been given an income of 145 points.

You have one decision to make in this stage. This is an **expenditure decision**. Namely, you need to decide whether to **raise** the income of your coparticipant and if so by how much, by up to a maximum of 45 points; for **each point** of your income you spend, you can raise the income of your coparticipant by **3 points**.

The following table shows examples of the kind of decisions you could make:

Amount Spent By You	Your Resulting Income	Your Coparticipant's Resulting Income
0	45	145
3	42	154
6	39	163
9	36	172
12	33	181
15	30	190

The above are just examples: there is no reason why the amount spent by you should be a multiple of 3; you could, for instance, decide to spend 1 or 14 points.

Your coparticipant **cannot** affect your income or his or her income for the stage. He or she will not learn about your decision until the payment screen at the end of the experiment, i.e. until after he or she has taken all his or her experimental decisions. Even then, he or she will not know that it is you who has made the decision.

Stage 1 [Order 0, MDGI_h, instructions for the receiver]

You have been given an income of 145 points. Your coparticipant has been given an income of 45 points.

Your coparticipant has one decision to make in this stage. This is an **expenditure decision**. Namely, he or she needs to decide whether to **raise** your income and if so by how much, by up to a maximum of 45 points; for **each point** of his or her income your coparticipant spends, he or she can raise your income by **3 points**.

The following table shows examples of the kind of decisions he or she could make:

Amount Spent By Your Coparticipant	Your Coparticipant's Resulting Income	Your Resulting Income
0	45	145
3	42	154
6	39	163
9	36	172
12	33	181
15	30	190

The above are just examples: there is no reason why the amount spent by her or him should be a multiple of 3; he or she could, for instance, decide to spend 1 or 14 points.

You will not learn about your coparticipant's decision until the payment screen at the end of the experiment.

On a purely hypothetical basis (note that the answer to this question will **not** be transmitted to your coparticipant, and will have **no** effect on your earnings and those of your coparticipant), how much would you spend were you in his or her shoes? That

is, if, *hypothetically*, you had 45 points and he or she had 145 points, and you had the opportunity to spend points as described above to **raise** the income of your coparticipant, how many points would you spend?

Stage 2 [Order 0, BGI_h, instructions for the dictator]

Your coparticipant for this stage has been randomly chosen. You have been given an income of 45 points. Your coparticipant has been given an income of 145 points.

You have one decision to make in this stage. This is an **expenditure decision**. Namely, you need to decide whether to **reduce** the income of your coparticipant and if so by how much, by up to a maximum of 45 points; for **each point** of your income you spend, you can reduce the income of your coparticipant by **3 points**.

The following table shows examples of the kind of decisions you could make:

Amount Spent By You	Your Resulting Income	Your Coparticipant's Resulting Income
0	45	145
3	42	136
6	39	127
9	36	118
12	33	109
15	30	100

The above are just examples: there is no reason why the amount spent by you should be a multiple of 3; you could, for instance, decide to spend 1 or 14 points.

Your coparticipant **cannot** affect your income or his or her income for the stage. He or she will not learn about your decision until the payment screen at the end of the experiment, i.e. until after he or she has taken all his or her experimental decisions. Even then, he or she will not know that it is you who has made the decision.

Stage 2 [Order 0, BGI_h, instructions for the receiver]

Your coparticipant for this stage has been randomly chosen. You have been given an income of 45 points. Your coparticipant has been given an income of 145 points.

Your coparticipant has one decision to make in this stage. This is an **expenditure decision**. Namely, he or she needs to decide whether to **reduce** your income and if so by how much, by up to a maximum of 45 points; for **each point** of his or her income your coparticipant spends, he or she can reduce your income by **3 points**.

The following table shows examples of the kind of decisions he or she could make:

Amount Spent By Your Coparticipant	Your Coparticipant's Resulting Income	Your Resulting Income
0	45	145
3	42	136
6	39	127
9	36	118
12	33	109
15	30	100

The above are just examples: there is no reason why the amount spent by her or him should be a multiple of 3; he or she could, for instance, decide to spend 1 or 14 points.

You will not learn about your coparticipant's decision until the payment screen at the end of the experiment.

On a purely hypothetical basis (note that the answer to this question will **not** be transmitted to your coparticipant, and will have **no** effect on your earnings and those of your coparticipant), how much would you spend were you in his or her shoes? That is, if, *hypothetically*, you had 45 points and he or she had 145 points, and you had the opportunity to spend points as described above to **reduce** the income of your coparticipant, how many points would you spend?

Stage 3 [Order 0, MDGh_1, instructions for the dictator]

Your coparticipant for this stage has been randomly chosen. You have been given an income of 145 points. Your coparticipant has been given an income of 45 points.

You have one decision to make in this stage. This is an **expenditure decision**. Namely, you need to decide whether to **raise** the income of your coparticipant and if so by how much, by up to a maximum of 45 points; for **each point** of your income you spend, you can raise the income of your coparticipant by **3 points**.

The following table shows examples of the kind of decisions you could make:

Amount Spent By You	Your Resulting Income	Your Coparticipant's Resulting Income
0	145	45
3	142	54
6	139	63
9	136	72
12	133	81
15	130	90

The above are just examples: there is no reason why the amount spent by you should be a multiple of 3; you could, for instance, decide to spend 1 or 14 points.

Your coparticipant **cannot** affect your income or his or her income for the stage. He or she will not learn about your decision until the payment screen at the end of the experiment, i.e. until after he or she has taken all his or her experimental decisions. Even then, he or she will not know that it is you who has made the decision.

Stage 3 [Order 0, MDGh_1, instructions for the receiver]

Your coparticipant for this stage has been randomly chosen. You have been given an income of 45 points. Your coparticipant has been given an income of 145 points.

Your coparticipant has one decision to make in this stage. This is an **expenditure decision**. Namely, he or she needs to decide whether to **raise** your income and if so by how much, by up to a maximum of 45 points; for **each point** of his or her income your coparticipant spends, he or she can raise your income by **3 points**.

The following table shows examples of the kind of decisions he or she could make:

Amount Spent By Your Coparticipant	Your Coparticipant's Resulting Income	Your Resulting Income
0	145	45
3	142	54
6	139	63
9	136	72
12	133	81
15	130	90

The above are just examples: there is no reason why the amount spent by her or him should be a multiple of 3; he or she could, for instance, decide to spend 1 or 14 points.

You will not learn about your coparticipant's decision until the payment screen at the end of the experiment.

On a purely hypothetical basis (note that the answer to this question will **not** be transmitted to your coparticipant, and will have **no** effect on your earnings and those of your coparticipant), how much would you spend were you in his or her shoes? That is, if, *hypothetically*, you had 145 points and he or she had 45 points, and you had the opportunity to spend points as described above to **raise** the income of your coparticipant, how many points would you spend?

Stage 4 [Order 0, BGh_1, instructions for the dictator]

Your coparticipant for this stage has been randomly chosen. You have been given an income of 145 points. Your coparticipant has been given an income of 45 points.

You have one decision to make in this stage. This is an **expenditure decision**. Namely, you need to decide whether to **reduce** the income of your coparticipant and

if so by how much, by up to a maximum of 45 points; for **each point** of your income you spend, you can reduce the income of your coparticipant by **3 points**.

The following table shows examples of the kind of decisions you could make:

Amount Spent By You	Your Resulting Income	Your Coparticipant's Resulting Income
0	145	45
3	142	36
6	139	27
9	136	18
12	133	9
15	130	0

The above are just examples: there is no reason why the amount spent by you should be a multiple of 3; you could, for instance, decide to spend 1 or 14 points.

Your coparticipant **cannot** affect your income or his or her income for the stage. He or she will not learn about your decision until the payment screen at the end of the experiment, i.e. until after he or she has taken all his or her experimental decisions. Even then, he or she will not know that it is you who has made the decision.

Stage 4 [Order 0, BGh_1, instructions for the receiver]

Your coparticipant for this stage has been randomly chosen. You have been given an income of 145 points. Your coparticipant has been given an income of 45 points.

Your coparticipant has one decision to make in this stage. This is an **expenditure decision**. Namely, he or she needs to decide whether to **reduce** your income and if so by how much, by up to a maximum of 45 points; for **each point** of his or her income your coparticipant spends, he or she can reduce your income by **3 points**.

The following table shows examples of the kind of decisions he or she could make:

Amount Spent By Your Coparticipant	Your Coparticipant's Resulting Income	Your Resulting Income
0	145	45
3	142	36
6	139	27
9	136	18
12	133	9
15	130	0

The above are just examples: there is no reason why the amount spent by her or him should be a multiple of 3; he or she could, for instance, decide to spend 1 or 14 points.

You will not learn about your coparticipant's decision until the payment screen at the end of the experiment.

On a purely hypothetical basis (note that the answer to this question will **not** be transmitted to your coparticipant, and will have **no** effect on your earnings and those of your coparticipant), how much would you spend were you in his or her shoes? That is, if, *hypothetically*, you had 145 points and he or she had 45 points, and you had the opportunity to spend points as described above to **reduce** the income of your coparticipant, how many points would you spend?

Order 1:

Same instructions as above but with two changes relative to Order 0: (a) Stages 3 and 4 of Order 0 become Stages 1 and 2 of Order 1; Stages 1 and 2 of Order 0 become Stages 3 and 4 of Order 1; (b) corresponding small changes in text related to re-matching.

Stage 5 [common for Order 0 and Order 1]

Your coparticipant for this stage has been randomly chosen. Stage 5 consists of 10 rounds of the same task.

Each round you and your coparticipant are given 100 points each. Your decision is whether to invest any amount from 0 to 100 points in a Common Fund. It is entirely up to you whether to invest or not, and you keep for yourself any amount which you choose not to invest. For each point that you and your coparticipant invest, you both receive 0.7 points for the total amount invested. In general, you will receive:

$$\text{Payment} = 100 - \text{Your Investment} + 0.7 (\text{Total Investment in Common Fund})$$

Example: *If you invested 10 points and your co-participant invested 90 points (these numbers are purely illustrative), the total amount invested is 100 points and the return to each of you is 70% of this, i.e. 70 points. For this round, therefore, you will have $100 - 10 + 70 = 130$ points and your co-participant will have $100 - 90 + 70 = 80$ points as the final earnings for the round.*

[*Treatment NP only:*

After both you and your coparticipant have made your decisions, you will be told how much each of you invested and how much each of you earned. You can then move on to the next round.]

[*Treatment P only:*

After both you and your coparticipant have made your decisions, you will be told how much each of you invested and how much each of you earned. You have the opportunity to register your **approval** or **disapproval** of your coparticipant's investment decision by distributing **disapproval units**. You can award a large number of units if you disapprove of his or her decision (10 units for the most disapproval, 0 units for the least disapproval). Disapproval points – whether awarded or received – do not affect your earnings for the round. After being informed of how many

disapproval points you yourself have received from your coparticipant, you can then move on to the next round.]

Your final payment for the stage is equal to the sum of your earnings from each of the 10 rounds.