

APPENDIX A: INSTRUCTION SCRIPT FOR THE SOCIAL DILEMMA EXPERIMENT

What follows is the text of the script spoken by Burks to each group of subjects. Subjects also saw an abbreviated version of these instructions on their computer screens, while they were listening to the instructions. The table mentioned in this text is in Appendix B.

ACTIVITY ONE: TWO-PERSON SENDING DECISION.

This activity does not take very long to do, but it is the most complicated thing to explain that we will do all day. So please bear with me as I give you the details.

You are going to make the decisions in this task ONCE. Some things you do today are going to be repeated, but the decisions in this task are not among the things we will repeat.

The BASICS OF THIS ACTIVITY ARE VERY SIMPLE, and so let me start there.

In this activity there are two different roles, Person 1 and Person 2. When we figure out your payoff you will be either a Person 1, or a Person 2, but not both. Each Person 1 will be matched with a Person 2 here in this room, but neither of you will ever know which specific other driver trainee you have been matched with.

Whether you are a Person 1 or a Person 2, the basics are the same. You will have a new amount of five dollars put in your account at the beginning of this activity by us. You have to decide whether to keep this five dollars, or to send it to the other person you are paired with. If you KEEP the money, it is yours at the end of the activity. If you SEND the money, we will double it, so that the person you send it to gets twice what you sent. Likewise, the person you are matched with will be making a SIMILAR decision about their five dollars. If they keep it, then it is theirs at the end of the activity, but if they send it to you, you will get twice what they sent.

So, that is THE BASIC OUTLINE. NEXT WE WILL LOOK AT THE DETAILS.

If you are a Person 1 your decision is simple. You have to decide whether to send your five dollars to Person 2, or to keep it. If you keep it, it is yours at the end of the activity, but if you send it to Person 2, we will *double* it, so that Person 2 actually gets \$10.

Now, Person 2 also gets to decide about sending money to Person 1. But there are a couple of special features to Person 2's decision.

The first special feature is that Person 2 doesn't just have a yes-no choice about sending the five dollars. Instead, Person 2 can send any exact dollar amount to Person 1. So Person 2 can send: \$0, \$1, \$2, \$3, \$4, or \$5. Just like before, however, whatever Person 2 keeps is theirs at the end of the activity, and whatever Person 2 sends will be *doubled* by the researchers.

Example: if Person 2 keeps \$4 and sends \$1 to Person 1, Person 1 will actually receive \$2,
Example: if Person 2 keeps \$2 and sends \$3 to Person 1, Person 1 will actually receive \$6.

The second special feature is that Person 2 gets to decide what to do under two different cases. The first case is how much they want to respond if Person 1 has not sent them money. This choice will be on the LEFT side of the Person 2 choice screen. The second case is how much they want to respond if Person 1 has sent them money. This choice will be on the RIGHT side of

the Person 2 choice screen. In both cases the rules are the same: Person 2 can choose how many dollars to keep and how many to send, and whatever is sent is doubled.

TABLE OF PAYOFFS IS HANDED OUT. (table is provided following end of script text)

PLEASE DO NOT WRITE ON THIS SHEET, AS WE WILL RE-USE IT.

Look at payoff handout sheet.

Let's look at the top table. As you can see from looking at the first column (from Line 1 to Line 6), the top table is for the case in which Person 1 decides to send Person 2 \$0. If you look at the second column of the top table (from Line 1 to Line 6), you can see all of the possible choices Person 2 has about how to respond. Finally, in each line, if you follow the arrow to the right, you see two more columns that show what the two people, Person 1 and Person 2, make in earnings. So, Lines 1 through 6 show each response Person 2 can make to the decision of Person 1 to send \$0, and the payoffs each of them receive.

Example: look at Line 1. From the first two columns, this is the situation in which Person 1 sends \$0, and Person 2 responds by also sending back \$0. Following the arrow to the right, you can see that Person 1 makes \$5, because he keeps \$5, and gets \$0 from Person 2, and Person 2 also makes \$5, because he keeps all of his initial \$5, and also receives nothing from Person 1.

Example: look at Line 4. From the first two columns, this is the situation in which Person 1 sends \$0, and Person 2 responds by sending back \$3. Following the arrow to the right, you can see that Person 1 makes \$11, because he keeps \$5, and also gets \$3 doubled to \$6 from Person 2. But Person 2 makes \$2, because he sent \$3 of his initial \$5, but received nothing back.

Example: look at Line 6. From the first two columns, this is the situation in which Person 1 sends \$0, and Person 2 responds by sending back \$5. Following the arrow to the right, you can see that Person 1 makes \$15, because he keeps \$5, and also gets \$5 doubled to \$10 from Person 2. But Person 2 makes \$0, because he sent all of his initial \$5, but received nothing back.

Now let's look at the bottom table. This repeats the same pattern as the top table, except that, as you can see from looking at the first column (from Line 7 to Line 12), it is for the case in which Person 1 sends \$5 to Person 2. If you look at the second column of the bottom table (from Line 7 to Line 12), you can see all of the possible choices Person 2 has about how to respond. Finally, in each line, if you follow the arrow to the right, you see two more columns that show what the two people, Person 1 and Person 2, make in earnings. So, Lines 7 through 12 show each response Person 2 can make to the decision of Person 1 to send \$5, and the payoffs each of them receive.

Example: look at Line 7. From the first two columns, this is the situation in which Person 1 sends \$5, and Person 2 responds by sending back \$0. Following the arrow to the right, you can see that Person 1 makes \$0, because he sent all his initial \$5, and gets \$0 back from Person 2, but Person 2 makes \$15, because he keeps all of his initial \$5, and also gets \$5 doubled to \$10 from Person 1.

Example: look at Line 9. From the first two columns, this is the situation in which Person 1 sends \$5, and Person 2 responds by sending back \$2. Following the arrow to the right, you can see that Person 1 makes \$4, because he sent all of his initial \$5, and gets \$2 doubled to \$4 back

from Person 2. And Person 2 makes \$13, because he kept \$3 of his initial \$5, also gets \$5 doubled to \$10 from Person 1

Example: look at Line 12. From the first two columns, this is the situation in which Person 1 sends \$5, and Person 2 responds by sending back \$5. Following the arrow to the right, you can see that Person 1 makes \$10, because he sent all his \$5, and gets back \$5 doubled to \$10 from Person 2. And Person 2 also makes \$10, because he sent back all of his initial \$5, also got \$5 doubled to \$10 from Person 1.

Any questions now?

OK, now for the next to last special feature. This is very important. We are going to randomly assign the roles of Person 1 and Person 2 at the end of the activity, not at the beginning. So, we are going to ask everyone to make a decision first as a Person 1, and then second, a decision as a Person 2.

Let me repeat that: you will first make a decision IN CASE YOU ARE A Person 1, whether you will send \$5 or not. Then, on a new screen, you will also make a two-decision IN CASE YOU ARE A Person 2: how much to send back if you got \$0 (LEFT SIDE of the screen), and how much to send back if you got \$5 (doubled to \$10) (RIGHT SIDE of the screen).

So the way the payoffs will work is that first you will be matched by the computer with someone else here in the room. For example, #11 over here might be matched with #23 over there. Of course, let me remind you that we will never tell you with whom you were matched. Since everyone made both a Person 1 choice and then a Person 2 choice, once you have been matched, the computer will in effect flip a coin—it will randomly make one of you Person 1 and the other Person 2. Then it will look at your choices and those of the person you were matched with, and calculate your payoffs.

Finally, here is the last special feature. Before each decision screen there is another question. We are not only going to ask you what you want to do, I'd like to know what you think everyone else here today will do. So, we will also ask you to guess how others will handle the decisions you are about to make.

So for instance, right before the Person 1 screen asks you whether you will send \$5 to Person 2 or not, we will also ask you to guess what percent of the people here in the room will send \$5 as Person 1. We will pay you \$1 extra if your guess is close (+/- 5%) to what people actually do.

And, when you make your decision as Person 2, you will have to tell us how much you want to send to Person 1 both when Person 1 sent \$0 to you, and also when Person 1 sent \$5 to you. Right before you make this decision, we will also ask you the average amount in dollars you think people in this room will send in each of these cases. We will pay you \$1 extra for each guess that is close (+/- \$.25) to what people actually choose.

So, to recap, you will have FOUR different screens of choices. FIRST, your best guess about the % of those here today who will send \$5 as Person 1. SECOND, your own decision in case the computer makes you a Person 1 for the payoffs. THIRD, your best guess about how much people here will send as Person 2, for the case when they got nothing (LEFT SIDE of the screen), and again for the case in which they received \$5 (RIGHT SIDE of the screen). FOURTH, your own choice in case the computer makes you a Person 2 for the payoffs, of how much to send back to

Person 1 when Person 1 sent you \$0 (LEFT SIDE of the screen), and when Person 1 sent you \$5 (RIGHT SIDE of the screen).

Any questions now?

At the end of the activity, the computer will show you what your earnings are in total, including both from your guesses about others and from your choices as Person 1 or Person 2.

OK, let's look at the instructions on the first computer screen. When you are happy you understand them, please click "continue" or "OK" in the lower right-hand corner of the screen. That will take you to a waiting screen, and when everyone is there, we will move to the first of two practice question screens, to make sure you understand how the payoff table works.

Practice Screen 1: Person 1 sends \$0, and Person 2 responds by sending back \$1.
Line 2 (Person 1 gets \$7, Person 2 gets \$4)

Practice Screen 2: Person 1 sends \$5, and Person 2 responds by sending back \$3. Line 10
(Person 1 gets \$6, and Person 2 gets \$12)

APPENDIX B: TABLE OF PD GAME PAYOFFS GIVEN TO SUBJECTS

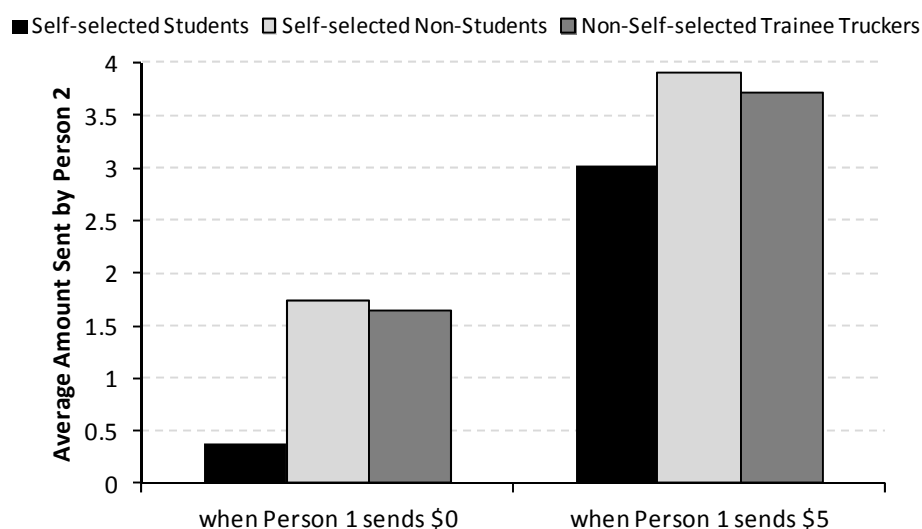
	Person 1 Sends	Person 2 Sends		Person 1 Makes	Person 2 Makes
Line 1	\$0	\$0	→	\$5	\$5
Line 2	\$0	\$1	→	\$7	\$4
Line 3	\$0	\$2	→	\$9	\$3
Line 4	\$0	\$3	→	\$11	\$2
Line 5	\$0	\$4	→	\$13	\$1
Line 6	\$0	\$5	→	\$15	\$0
	Person 1 Sends	Person 2 Sends		Person 1 Makes	Person 2 Makes
Line 7	\$5	\$0	→	\$0	\$15
Line 8	\$5	\$1	→	\$2	\$14
Line 9	\$5	\$2	→	\$4	\$13
Line 10	\$5	\$3	→	\$6	\$12
Line 11	\$5	\$4	→	\$8	\$11
Line 12	\$5	\$5	→	\$10	\$10

APPENDIX C – ADDITIONAL STATISTICAL ANALYSIS

In this Appendix, we address our research questions following an alternative approach to analyze the data: instead of using the amounts transferred by Persons 2 to assign subjects to categories, as we did in Section 3 of the paper, we directly compare the amounts transferred across subject pools. The results of this alternative data analysis largely corroborate the results discussed in Section 3.

Figure C.1 below shows the average amount sent by subjects in the role of Person 2, disaggregated by subject pool. The Figure distinguishes between amounts that were transferred when Person 1 had sent \$0 and when Person 1 had sent \$5.

Figure C.1 – Average Amount Sent by Person 2, by Subject Pool



The amounts sent by the two non-student subject pools are, on average, similar: Self-selected Non-Students transferred an average of \$1.75 to Person 1 when Person 1 had sent \$0, and \$3.91 when Person 1 had sent \$5. Non-Self-selected Trainee Truckers transferred respectively \$1.64 and \$3.71 in these two situations. Using two-sided Wilcoxon rank sum tests, we do not find statistically significant differences in the amounts sent by Self-selected Non-Students and Non-Self-selected Trainee Truckers in either situation ($z = 0.926$, $p = 0.354$ for the situation where Person 1 sends \$0; $z = 0.892$, $p = 0.373$ for the situation where Person 1 sends \$5).

Figure C.1 also shows that Self-selected Students on average transfer lower amounts than Self-selected Non-Students, both when Person 1 sends \$0 (\$0.38 vs. \$1.75) and when Person 1 sends \$5 (\$3.02 vs. \$3.91). Using two-sided Wilcoxon rank sum tests, we reject the hypothesis that amounts transferred by Self-selected Students are the same as those of Self-selected Non-Students ($z = 5.858$, $p = 0.000$ when Person 1 sends \$0; $z = 3.052$, $p = 0.002$ when Person 1 sends \$5).

We further examine the differences in amounts sent across subject pools using two separate Tobit regressions (one for the situation where Person 1 sends \$0 and one for the situation where Person 1 sends \$5). In a first model, we just regress the amount sent in the role of Person 2 against dummy variables for the different subject pools. In a second model, we also use the set of control regressors used in Table 3 in Section 3 of the paper. Table C.1. reports the results of the regressions, which confirm our main findings: 1) whether participants did or did not self-select into the experiment does not affect the amount they transferred, 2) students transfer lower amounts than non-students.

Table C.1: Tobit Regressions

	<i>When Person 1 sends \$0</i>		<i>When Person 1 sends \$5</i>	
	<i>Ia</i>	<i>Ia</i>	<i>Ib</i>	<i>Ib</i>
Self-Selected Students	-5.930*** (.000)	-3.629*** (.002)	-3.343*** (.002)	-2.335* (.060)
Non-Self-Selected Trainee Truckers	-0.428 (.529)	-0.681 (.388)	-0.793 (.324)	0.003 (.997)
Age	-	0.094*** (.000)	-	0.014 (.546)
Age ² / 100	-	-0.098 (.533)	-	-0.064 (.704)
Gender (1 if Female)	-	0.045 (.938)	-	-0.766 (.217)
Non – White or Hispanic	-	0.447 (.378)	-	-0.749 (.132)
Number of Siblings	-	0.213* (.096)	-	0.017 (.894)
Number of Siblings ² / 100	-	1.854 (.607)	-	-2.653 (.493)
Years of Education Completed	-	0.507*** (.000)	-	0.324** (.017)
Years of Education Completed ² / 100	-	3.379 (.274)	-	3.194 (.356)
Marital Status (1 if Single/etc.)	-	0.004 (.992)	-	-0.600 (.194)
Income Category				
\$10,000-\$20,000	-	0.545 (.400)	-	1.248* (.083)
\$20,000-\$30,000	-	0.820 (.187)	-	-0.362 (.582)
\$30,000-\$40,000	-	0.791 (.278)	-	0.420 (.564)
\$40,000-\$50,000	-	0.918 (.260)	-	2.180*** (.008)
\$50,000-\$60,000	-	1.102 (.198)	-	0.056 (.954)
\$60,000-\$70,000	-	1.135 (.224)	-	0.739 (.463)
\$70,000+	-	0.011 (.990)	-	0.599 (.496)
<i>N.</i>	1206	1206	1206	1206
<i>Pseudo R</i> ²	0.004	0.029	0.004	0.012

Tobit regressions with robust standard errors. Dependent variable is amount sent by subjects in the role of Person 2. The reference subject type which is: Self-Selected Non-Student, Male, Married, Adult, White (Non-Hispanic), Income category \$0-\$10,000. Continuous variables are centered at their mean (means are: 36.2 for Age, 13.2 for Years of Education Completed, and 2.8 for Number of Siblings), and quadratic terms are computed for the mean-centered variables. P-values are reported in parentheses. A constant is included in all models, but omitted from the Table output. Significance levels: * 10% ; ** 5%; *** 1%.