

Supplementary Materials  
for  
**Trust and Trustworthiness in the Villain’s Dilemma:  
Collaborative Dishonesty with Conflicting Incentives?**

September 27th 2024

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## 1. SUPPLEMENTARY TEXT

### 1.1. TRANSLATED INSTRUCTIONS

Instructions translated from Italian. Notes that were not part of the original instructions, such as those indicating treatment differences, are [in square brackets and *in italics*].

#### **General instructions**

*[At the beginning of the experiment, students receive only the general instructions and those of Phase1.]*

Welcome to this experiment.

Please read the following instructions carefully. All participants are reading the same instructions and taking part in this experiment for the first time.

During this experiment you and the other participants will be asked to make some decisions. Your decisions and those of the other participants will determine your earnings for the experiment, which will be calculated as explained shortly.

Your final profit for the experiment will be privately paid to you by the experimenters immediately at the end of the experiment.

This experiment is completely computerized. From this moment on, and for the whole duration of the experiment, any communication between the participants is prohibited, as is the use of mobile phones. Those who violate these rules will be excluded from the experiment without receiving any payment. If you have any doubts about the experiment, raise your hand and one of the experimenters will immediately come to answer your question privately.

The experiment consists of 3 phases. For each of them you will get an independent payment, as will be explained below. Your overall earnings for the experiment will be equal to the sum of the earnings obtained in the first, second and third phase, plus a showup fee of 5 Euros.

Once the experiment is finished, you will need to fill out a short questionnaire whose information is strictly confidential and will be used anonymously and for research purposes only.

Enjoy!

### **Phase 1**

Phase 1 of the experiment consists of 10 rounds in which you will make individual and independent decisions even if you are part of a group of participants.

At the beginning of this Phase, the computer will group the participants in your session into groups of 6 individuals; the composition of these groups will remain the same for the entire duration of the experiment.

Each participant in your group will be randomly assigned an identification symbol (e.g. triangle, square, etc.) by the computer.

This identification symbol will remain the same for each of you for the duration of the experiment and will be shown at the top left of your computer screen. For example, if in the first phase of the experiment you will be assigned the circle symbol, the circle will remain your identification symbol in all the subsequent phases of the experiment.

In each of the 10 rounds of Phase 1 you will have to throw, materially and only once in each round, the dice that you will find in your cubicle next to the mouse and write a number corresponding to the result obtained from each roll in the appropriate box indicated on your screen. The result you report will determine your gains for this Phase of the experiment.

Note that computer will only record the result of each roll you report.

### **ACTUAL EARNINGS FOR PHASE 1**

Your earnings for Phase 1 of the experiment will be determined as follows: at the end of the experiment the computer will randomly select one of the 10 rounds for payment and you will earn in Euros the value you reported for the die roll made in that round.

### **Phase 2**

*[The program is paused and participants receive the instructions for Phase 2.]*

Phase 2 of the experiment consists of a single round in which you will make individual and independent decisions even if you are part of a couple.

Note: your earnings for this Phase will depend not only on your choice, but also on the choice of your partner for this Phase.

At the beginning of Phase 2, the computer will anonymously and randomly pair you with another participant in your group.

After that, the computer will randomly assign you with probability  $\frac{1}{2}$  the role of SENDER or RECEIVER and will assign the opposite role to your partner (respectively RECEIVER if you have been drawn SENDER and SENDER if you have been drawn RECEIVER).

As mentioned above, each pair will interact for only one round.

In Phase 2, the computer will first present to both participants of each pair two different payoff tables (Table A and Table B) in which the payoffs for both participants depend on the action chosen by the RECEIVER. In particular, (s)he can choose between ACTION U and ACTION D.

Subsequently, the computer will randomly select with probability equal to  $\frac{1}{2}$  the Table that will actually be implemented for payment and will communicate the result of the drawing only to the SENDER participant.

The RECEIVER will not be informed about the result of the draw, i.e. which of the two tables was randomly drawn by the computer. In particular, after having presented the drawn payoff table on the screen of the SENDER, the computer will ask him or her to choose which possible drawn result, Table (A or B), he wants to communicate to the RECEIVER.

Note that only the SENDER knows the actual result of the draw.

Once the SENDER has communicated to the RECEIVER which of the two payoff tables has been drawn (A or B), the RECEIVER will have to decide which Action to take (ACTION U or ACTION D).

Once the RECEIVER has made this decision, the computer will inform both pair members the payoff Table that was selected, the Action chosen by the RECEIVER and the respective earnings for this Phase.

## ACTUAL EARNINGS FOR PHASE 2

Your earnings for Phase 2 will depend on the role in which you were drawn (SENDER or RECEIVER), your choice in that role and the choice of the other member of your pair. In particular, if you have been drawn as a SENDER, your choice takes the form of the decision to communicate to the RECEIVER which of the two payoff tables has been drawn for payment; if you have been selected as a RECEIVER, your choice consists in deciding which action to take on the basis of the payoff table that the SENDER has communicated to you.

Your actual earning for this Phase is therefore the result of the interaction of the two decisions taken individually and independently by each of you.

## **Phase 3**

*[The program is paused and participants receive the instructions for Phase 3.]*

Phase 3 of the experiment consists of 30 rounds in which you will have to make some decisions, including choosing whether you want or not to be matched with another participants in your group.

At the beginning of each round, the computer will ask you to rank the other group members, which will be identified by their symbol, on the basis of your preferences to be matched with that specific group member. For each of them, you will be asked to state your preference, where 1 indicates the most preferred member, 2 the second-most preferred and so on. If two or more participants are indifferent to you, you can assign the same order number to each of them; if instead there are one or more participants with whom you do not want to be matched with, you can leave blank the box next to their identification symbol.

Note that you will have to indicate this order of preference even if you do not want to play in pair for that round.

Next, the computer will ask you to decide if you actually want to be paired with another participant in your group or not. If you decide not to partner with anyone, you will receive a fixed earning of 2 Euros. If you decide to be paired with another participant in your group, your earnings will depend on the choices of both, as explained below.

[*Dyadic no ID*] Based on your preferences and those of the other participants who decided to be in pairs, the computer will assign you a partner without communicating his identity (i.e. symbol). You will, however, be informed of the number this participant reported in the previous round, in case (s)he played in pairs. If no value is reported, it means that this participant did not make a paired decision in the previous round, either because he didn't want to make decisions as a couple or because it was not possible to form one, given his preferences.

[*Dyadic ID*] Based on your preferences and those of the other participants who decided to be in pairs, the computer will assign you a partner and will communicate to you his identity (i.e. symbol). You will also be informed of the number this participant reported in the previous round, in case (s)he played in pairs. If no value is reported, it means that this participant did not make a paired decision in the previous round, either because he didn't want to make decisions as a couple or because it was not possible to form one, given his preferences.

[*Public*] Based on your preferences and those of the other participants who decided to be in pairs, the computer will assign you a partner and will communicate to you his identity (i.e. symbol).

Specifically, in each round the computer will randomly select one of the participants in your group who has decided to play in couple and will pair him with the person he has indicated as a favorite, only if the latter has also expressed an intention to be matched with him or her, otherwise the computer will move onto second preferred and so on until the first pair is formed. Subsequently, the computer will select another participant, still not matched but willing to be, and will try to pair him or her with the same method, and so on away until all possible pairs are formed.

In the event that, based on the preferences expressed by the participants, you are left without a partner despite having expressed the will to form a pair, you will still earn 2 Euros for that round.

Once the pair is formed, the computer will randomly select, with probability  $\frac{1}{2}$ , the pair member who will first roll the die, independently on the other member, and report the result of the roll in the

designated box on the screen. The other member of the pair will have to wait for the number reported by his partner before rolling the die and input the corresponding result in the designated box on the screen.

### GAINS FOR PHASE 3

Your gains in each round of Phase 3 is calculated as follows.

- If you have decided not to be a couple or it was not possible to form one, you will gain 2 Euros;
- If you have been in a pair:
  - if you and your partner reported **the same number**, the gain is equal to that number for the both of you;
  - if you reported a different number and the two numbers **differ by one unit**, the pair member who reported the lower number will gain the sum of the two number (that (s)he and the partner reported), while the member who reported the higher number will gain zero;
  - if you reported a different number and the two numbers **differ by more than one unit**, both members of the pair earn zero.

At the end of each round the computer will show your gains for that round.

*[Public]* Before moving on to the next round, you will be informed of the dice roll values reported by each of the participants in your group in the round that just ended. The participants for whom no value is reported, are those who did not make a paired decision, either because they have decided not to be in pairs or because it was not possible to form one for them.

### ACTUAL EARNINGS FOR PHASE 3

Your actual earnings for Phase 3 of the experiment will be determined as follows: at the end of the Phase, the computer will randomly select one of the 30 rounds for payment and you will earn in Euros the gains you realized in that round.

## 1.2. SCREENSHOTS

Introduction (symbol communication and general instructions) and Phase 1


**GRUPPI E SIMBOLO**

Il computer ha creato gruppi casuali di sei giocatori.

La composizione del gruppo rimarrà la stessa per tutta la durata dell'esperimento.

A ciascun giocatore è stato assegnato casualmente un simbolo per poterlo identificare all'interno del gruppo.

Il simbolo che ti è stato assegnato rimarrà lo stesso per tutta la durata dell'esperimento ed è il seguente:



AVANTI >>





## FASE 1 - LANCIO DEL DADO

1

Lancia il dado ed inserisci il valore nella casella seguente.

Il tuo guadagno in questo round sarà pari al valore riportato.

Valore

AVANTI >>



## FASE 2 - COPPIE E RUOLI

Il computer ti ha accoppiato casualmente con un altro partecipante all'esperimento.

Il computer ti ha assegnato casualmente il ruolo seguente:

**MITTENTE**

L'altro partecipante che è in coppia con te avrà il ruolo di RICEVENTE.

Il guadagno finale di questa fase dipenderà dalle scelte di entrambi i partecipanti.

AVANTI >>



## FASE 2 - TAVOLE PAYOFF

Osserva attentamente le due tavole di payoff proposte dal computer.

Il computer ne sorteggerà casualmente una delle due.

Tu, in quanto MITTENTE, sarai informato del risultato dell'estrazione.

TABELLA A	MITTENTE	RICEVENTE
AZIONE U	2	1
AZIONE D	1	2

TABELLA B	MITTENTE	RICEVENTE
AZIONE U	1	2
AZIONE D	2	1

AVANTI >>



## FASE 2 - ESTRAZIONE TAVOLA

Il computer ha estratto casualmente la tavola dei payoff seguente:

TABELLA A	MITTENTE	RICEVENTE
AZIONE U	2	1
AZIONE D	1	2

Decidi quale tavola vuoi comunicare al tuo compagno come risultato dell'estrazione del computer:

TAVOLA A

TAVOLA B



## FASE 2 - COPPIE E RUOLI

Il computer ti ha accoppiato casualmente con un altro partecipante all'esperimento.

Il computer ti ha assegnato casualmente il ruolo seguente:

**RICEVENTE**

L'altro partecipante che è in coppia con te avrà il ruolo di MITTENTE.

Il guadagno finale di questa fase dipenderà dalle scelte di entrambi i partecipanti.

AVANTI >>



## FASE 2 - TAVOLE PAYOFF

Osserva attentamente le due tavole di payoff proposte dal computer.

Il computer ne sorteggerà casualmente una delle due.

Tu, in quanto RICEVENTE, non sarai informato del risultato dell'estrazione.

TABELLA A	MITTENTE	RICEVENTE
AZIONE U	2	1
AZIONE D	1	2

TABELLA B	MITTENTE	RICEVENTE
AZIONE U	1	2
AZIONE D	2	1

AVANTI >>



## FASE 2 - AZIONE

Il tuo compagno ti comunica che il computer ha estratto casualmente la tavola dei payoff seguente:

TABELLA A	MITTENTE	RICEVENTE
AZIONE U	2	1
AZIONE D	1	2

Decidi quale azione vuoi intraprendere sulla base del risultato comunicato dal tuo compagno:

Phase 2: feedback (identical for Sender and Receiver)



## FASE 2 - GUADAGNO

Data la tabella estratta dal computer e la scelta fatta dal RICEVENTE, il risultato finale è il seguente:

TABELLA A	MITTENTE	RICEVENTE
AZIONE U	2	1
AZIONE D	1	2




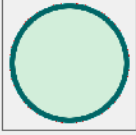
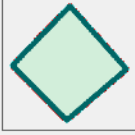

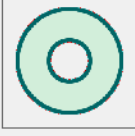
Il tuo guadagno per questa fase è quindi:

**1.00**

AVANTI >>



Phase 3: ranking of group members and decision to opt in

	<b>FASE 3 - PREFERENZE</b>	<b>1</b>	
<p>Ti chiediamo ora di esprimere una preferenza per uno o più partecipanti con i quali desideri stare in coppia indicando accanto al simbolo corrispondente il numero d'ordine per la preferenza stessa.</p> <p>Se con un determinato partecipante non desideri stare in coppia, lascia in bianco la casella.</p>			
	<input type="text"/>		<input type="text"/>
	<input type="text"/>		<input type="text"/>
			<input type="text"/>
			<input type="button" value="AVANTI &gt;&gt;"/>



### FASE 3 - SCELTA INIZIALE

1

Ti ricordiamo che il computer ha creato gruppi casuali di sei giocatori rappresentati dai simboli seguenti:



Il simbolo che ti è stato assegnato è il seguente:



Decidi ora se in questo round vuoi stare in coppia o meno con un altro partecipante del tuo gruppo

SI

NO

Phase 3: no match and match (in *Dyadic no ID* treatment)



**FASE 3 - INFORMAZIONI COPPIA**

**1**

Il computer non ha trovato un partecipante disponibile per formare la coppia.

Il tuo guadagno in questo round sarà fisso e pari a 2.00 EURO.

AVANTI >>



### FASE 3 - INFORMAZIONI COPPIA

2


Il computer ha trovato un partecipante disponibile per formare la coppia.

Controlla ora il valore riportato dal tuo compagno nel round precedente.

5

AVANTI >>

Phase 3: collaborative task (first and second mover)

	<b>FASE 3 - LANCIO DEL DADO</b>	<b>1</b>
<p>Lancia il dado ed inserisci il valore nella casella seguente.</p> <p>Il tuo guadagno in questo round sarà pari a:</p> <ul style="list-style-type: none"><li>- il numero riportato se entrambi avrete riportato lo stesso numero;</li><li>- la somma dei due numeri riportati per colui che ha riportato il più piccolo e 0 per l'altro se i due numeri riportati differiranno di 1;</li><li>- 0 per entrambi se i due numeri riportati differiranno di più di 1.</li></ul>		
<p>Valore <input data-bbox="668 768 788 801" type="text"/></p>		
<p><b>AVANTI &gt;&gt;</b></p>		



### FASE 3 - LANCIO DEL DADO

1

Il tuo compagno ha lanciato il dado ed ha riportato il valore seguente:

6

Lancia il dado ed inserisci il valore nella casella seguente.


Il tuo guadagno in questo round sarà pari a:

- il numero riportato se entrambi avrete riportato lo stesso numero;
- la somma dei due numeri riportati per colui che ha riportato il più piccolo e 0 per l'altro se i due numeri riportati differiranno di 1;
- 0 per entrambi se i due numeri riportati differiranno di più di 1.

Valore

AVANTI >>

Phase 3: end of round feedback with payoff (all treatments) and *Public* treatment

	<b>FASE 3 - GUADAGNO</b>	<b>1</b>
<p>Il tuo guadagno per questo round è pari a:</p> <div data-bbox="555 443 831 562" style="border: 1px solid black; padding: 10px; text-align: center;"><b>11.00</b></div> <div data-bbox="1038 1196 1214 1240" style="text-align: right;"><input type="button" value="AVANTI &gt;&gt;"/></div>		



### FASE 3 - ROUND PRECEDENTE

2

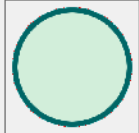
Controlla ora i valori del lancio del dado riportati dai partecipanti del tuo gruppo nel round precedente.



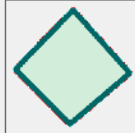
6



6



5



--



--

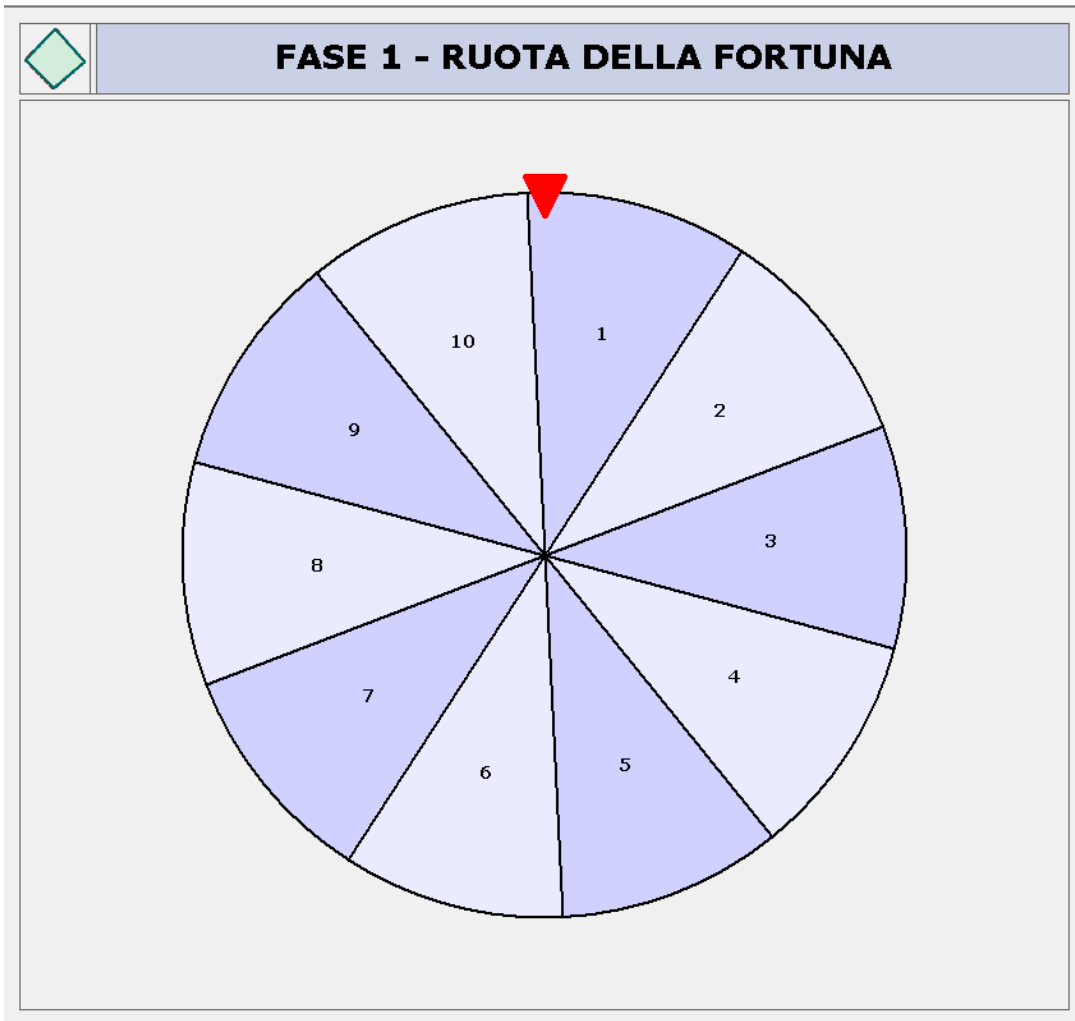


6

AVANTI >>



Final feedback: round selection and final payment (without showup fee)





## GUADAGNO FINALE

Il tuo guadagno finale è dato da:

**4.00**

Profitto FASE 1

+

**2.00**

Profitto FASE 2

+

**6.00**

Profitto FASE 3

=

**12.00**

TERMINA ESPERIMENTO

### 1.3. MOTIVATIONS FOR ELSE DECISIONS

The least likely explanation, in our view, is revenge. This is because revenge would require that a player who was previously betrayed by a SM choose to be matched with that player again and hope that this time they are the SM in the new interaction (and not the FM in which case they can be undercut again). Or, it would require that the betrayer choose the player that they previously betrayed. Neither of these seem particularly likely to us.

For the others explanations there are hints in the data. One hint is that Else decreases over round: going from 30% in round 1 to 11.6% in round 30 (Table A10). This could imply learning—consistent with the mistakes explanation, but, it could also imply that SM become less honest over time (they may be fed up from receiving low earnings from honest reporting), or that a signal of cooperativeness is less important as the experiment draws to a close, or, even that that costly punishment is successful in increasing FM die-rolls

Another hint is that Else is greater when the FM reports a lower number (Table A9). When the FM reports 1, 31.1% of the interactions end in Else, when 2 then 24.8% end in Else, when 3 16.8% end in Else, when 4 then 13.4%, when 5 12.4%, and when 6 6.9% end in Else. This pattern, of fewer Else, at higher numbers would be consistent with the signaling cooperativeness idea and the costly punishment idea. While it would not be consistent with mistakes: there are exactly as many possibilities for Else when a FM reports 6 (the numbers 1, 2, 3, and 4 by the SM) as when a FM reports 2 (the numbers 3, 4, 5, and 6 by the SM), yet Else is much greater in the latter than former. For the same reason, this pattern is also not consistent with honest SMs.

Overall then, the only explanations consistent with both patterns in the data, and plausible from a design perspective, are signaling and costly punishment.

## 2. SUPPLEMENTARY TABLES

**Table A1: Summary statistics of the variables used in the regression analyses**

Variable	Obs	Mean	Std. Dev.	Min	Max
<i>Dependent variables</i>					
Decision to opt in	11340	0.865	0.342	0	1
Undercut	3509	0.421	0.494	0	1
<i>Independent variables</i>					
Experienced (lab)	11340	0.175	0.380	0	1
Mean Dice Stage 1	11340	4.123	0.750	2.5	6
Risk loving	11340	0.138	0.344	0	1
Risk neutral	11340	0.331	0.470	0	1
Risk averse	11340	0.532	0.499	0	1
Lied in Stage 2	5670	0.370	0.483	0	1
Trusted in Stage 2	5670	0.661	0.473	0	1
Age	11340	21.987	2.559	18	36
Female	11340	0.450	0.497	0	1
Extraversion	11340	6.529	1.705	2	10
Agreeableness	11340	5.881	1.543	2	10
Conscientiousness	11340	7.336	1.587	3	10
Neuroticism	11340	6.000	2.032	2	10
Openness	11340	4.825	1.793	2	10
Cognitive Refl. Score	11340	1.272	1.158	0	3

**Table A2: Summary statistics of the variables used in the regression analyses according to treatment**

Variable	Public				Dyadic ID				Dyadic no ID			
	Mean	Std. Dev.	Min	Max	Mean	Std. Dev.	Min	Max	Mean	Std. Dev.	Min	Max
<i>Dependent variables</i>												
Decision to opt in	0.937	0.243	0	1	0.819	0.385	0	1	0.840	0.367	0	1
Undercut	0.332	0.471	0	1	0.465	0.499	0	1	0.502	0.500	0	1
<i>Independent variables</i>												
Experienced (lab)	0.357	0.479	0	1	0.114	0.317	0	1	0.050	0.218	0	1
Mean Dice Stage 1	4.491	0.785	3.2	6	3.948	0.646	2.6	6	3.928	0.673	2.5	6
Risk loving	0.111	0.314	0	1	0.152	0.359	0	1	0.150	0.357	0	1
Risk neutral	0.310	0.462	0	1	0.341	0.474	0	1	0.342	0.474	0	1
Risk averse	0.579	0.494	0	1	0.508	0.500	0	1	0.508	0.500	0	1
Lied in Stage 2	0.460	0.499	0	1	0.348	0.477	0	1	0.300	0.458	0	1
Trusted in Stage 2	0.540	0.499	0	1	0.712	0.453	0	1	0.733	0.442	0	1
Age	23.024	2.689	19	35	21.492	2.197	18	30	21.442	2.456	18	36
Female	0.389	0.488	0	1	0.485	0.500	0	1	0.475	0.499	0	1
Extraversion	6.381	1.704	3	10	6.492	1.555	2	10	6.725	1.839	3	10
Agreeableness	5.849	1.497	2	10	5.947	1.463	2	10	5.842	1.669	2	9
Conscientiousness	7.230	1.459	5	10	7.379	1.645	4	10	7.400	1.645	3	10
Neuroticism	5.976	1.942	2	10	6.182	2.056	2	10	5.825	2.081	2	10
Openness	4.667	1.564	2	9	4.879	1.867	2	9	4.933	1.918	2	10
Cognitive Refl. Score	1.389	1.148	0	3	1.000	1.101	0	3	1.450	1.175	0	3

**Table A3: Robustness check for the analysis of opting into collaboration (Table 4), with most dishonest groups of treatment *Public* removed**

	Model 1	Model 2	Model 3	Model 4	Model 5
Period	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)
<i>Ref. Cat: Dyadic ID</i>					
Public	0.142*** (0.019)	0.103*** (0.030)	0.174*** (0.031)	0.136*** (0.019)	0.135*** (0.020)
Dyadic no ID	0.023 (0.027)	0.020 (0.034)	0.033 (0.040)	0.023 (0.027)	0.024 (0.026)
Experienced (Lab)	0.009 (0.041)	-0.017 (0.054)	0.016 (0.078)	-0.005 (0.045)	-0.006 (0.044)
Mean Dice Stage 1		0.041* (0.022)	0.000 (0.024)	0.022 (0.016)	0.021 (0.015)
<i>Ref. Cat: risk seeking</i>					
Risk neutral		0.030 (0.044)	-0.029 (0.050)	-0.001 (0.033)	0.017 (0.038)
Risk averse		0.021 (0.038)	-0.019 (0.047)	0.002 (0.029)	0.011 (0.034)
Lied in Stage 2		0.039 (0.025)			
Trusted in Stage 2			-0.031 (0.039)		
Age				0.001 (0.005)	0.001 (0.005)
Female				-0.001 (0.022)	0.014 (0.024)
Extraversion					-0.003 (0.005)
Agreeableness					0.016** (0.007)
Conscientiousness					-0.013* (0.008)
Neuroticism					-0.003 (0.005)
Openness					-0.013** (0.006)
Cognitive Reflection Score					0.005 (0.011)
N	9900	4950	4950	9900	9900

*Notes:* Average marginal effects; analysis of Table 3 performed on a restricted sample, removing the most dishonest groups from the Public treatment (all groups in Public with a frequency of reporting 6 in Stage 1 higher than the maximal frequency of the groups in the other two treatments were removed, leading to 13 groups left on a total of 21). \*\*\*, \*\*, and \* indicate significance at the 1, 5, and 10 percent critical level.

**Table A4: Robustness check for the analysis of opting into collaboration (Table 4), with only pre-COVID sessions included**

	Model 1	Model 2	Model 3	Model 4	Model 5
Period	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)	-0.001 (0.001)
<i>Ref. Cat: Dyadic ID</i>					
Public	0.128*** (0.022)	0.080** (0.031)	0.169*** (0.037)	0.122*** (0.023)	0.122*** (0.025)
Experienced (Lab)	0.04 (0.037)	0.02 (0.047)	0.049 (0.067)	0.04 (0.044)	0.039 (0.040)
Mean Dice Stage 1		-0.003 (0.025)	0.038 (0.035)	0.013 (0.019)	0.011 (0.019)
<i>Ref. Cat: risk seeking</i>					
Risk neutral		0.038 (0.050)	-0.110** (0.045)	-0.027 (0.035)	-0.024 (0.035)
Risk averse		0 (0.044)	-0.076** (0.037)	-0.032 (0.028)	-0.037 (0.028)
Lied in Stage 2		0.012 (0.032)			
Trusted in Stage 2			0.008 (0.041)		
Age				-0.001 (0.006)	-0.001 (0.006)
Female				-0.01 (0.025)	-0.009 (0.026)
Extraversion					0.016* (0.009)
Agreeableness					0.008 (0.008)
Conscientiousness					-0.005 (0.009)
Neuroticism					0.005 (0.006)
Openness					-0.01 (0.007)
Cognitive Reflection Score					0.006 (0.013)
N	6300	3150	3150	6300	6300

*Notes:* Average marginal effects from random effects probit models with random intercepts at the individual level and standard errors clustered at the group level (reported in parentheses). \*\*\*, \*\*, and \* indicate significance at the 1, 5, and 10 percent critical level. Subjects were classified as experienced if they had participated in more than 5 prior experiments. Contains 10 sessions: 5 Public and 5 Dyadic ID.

**Table A5: Robustness check for the analysis of undercutting (Table 5), with most dishonest groups of treatment *Public* removed**

	Model 1	Model 2	Model 3	Model 4	Model 5
Period	0.002 (0.001)	0.002 (0.002)	0.002 (0.002)	0.002 (0.001)	0.002 (0.001)
<i>Ref. Cat: Dyadic ID</i>					
Public	-0.102*** (0.033)	-0.138*** (0.047)	-0.097** (0.040)	-0.125*** (0.034)	-0.115*** (0.034)
Dyadic no ID	0.037 (0.032)	0.041 (0.044)	0.034 (0.042)	0.033 (0.032)	0.039 (0.035)
Experienced (Lab)	-0.055 (0.037)	-0.006 (0.052)	-0.197*** (0.071)	-0.096** (0.040)	-0.088** (0.040)
Mean Dice Stage 1		0.091*** (0.031)	0.060** (0.028)	0.069*** (0.022)	0.067*** (0.022)
<i>Ref. Cat: risk seeking</i>					
Risk neutral		-0.059 (0.059)	0.031 (0.047)	-0.000 (0.039)	0.000 (0.040)
Risk averse		-0.029 (0.062)	0.035 (0.051)	0.009 (0.042)	0.013 (0.043)
Lied in Stage 2		0.012 (0.038)			
Trusted in Stage 2			0.045 (0.039)		
Age				0.003 (0.006)	0.002 (0.005)
Female				-0.002 (0.025)	-0.004 (0.030)
Extraversion					-0.011* (0.007)
Agreeableness					-0.007 (0.011)
Conscientiousness					-0.006 (0.009)
Neuroticism					-0.016** (0.007)
Openness					0.009 (0.007)
Cognitive Reflection Score					-0.022 (0.015)
N	2997	1552	1445	2997	2997

*Notes:* Average marginal effects; analysis of Table 4 performed on a restricted sample, removing the most dishonest groups from the Public treatment (all groups in Public with a frequency of reporting 6 in Stage 1 higher than the maximal frequency of the groups in the other two treatments were removed, leading to 13 groups left on a total of 21). \*\*\*, \*\*, and \* indicate significance at the 1, 5, and 10 percent critical level.



**Table A6: Robustness check for the analysis of undercutting (Table 5), with only pre-COVID sessions included**

	Model 1	Model 2	Model 3	Model 4	Model 5
Period	0 (-0.001)	-0.002 (-0.002)	0.002 (-0.002)	0 (-0.001)	0 (-0.001)
<i>Ref. Cat: Dyadic ID</i>					
Public	-0.146*** (-0.033)	-0.154*** (-0.052)	-0.162*** (-0.045)	-0.185*** (-0.039)	-0.174*** (-0.039)
Experienced (Lab)	0.001 (-0.042)	0.041 (-0.076)	-0.089 (-0.068)	-0.044 (-0.043)	-0.017 (-0.04)
Mean Dice Stage 1		0.034 (-0.042)	0.041 (-0.044)	0.036 (-0.029)	0.029 (-0.026)
<i>Ref. Cat: risk seeking</i>					
Risk neutral		0.041 (-0.078)	0.04 (-0.057)	0.06 (-0.045)	0.043 (-0.047)
Risk averse		-0.006 (-0.077)	0.029 (-0.059)	0.029 (-0.051)	0.025 (-0.049)
Lied in Stage 2		0.048 (-0.054)			
Trusted in Stage 2			0.067 (-0.051)		
Age				0.015** (-0.007)	0.012* (-0.007)
Female				0 (-0.031)	0.003 (-0.031)
Extraversion					-0.016* (-0.009)
Agreeableness					-0.022** (-0.01)
Conscientiousness					0.01 (-0.012)
Neuroticism					-0.020** (-0.01)
Openness					0.013 (-0.009)
Cognitive Reflection Score					-0.034* (-0.018)
N	2026	1024	1002	2026	2026

*Notes:* Average marginal effects from random effects probit models with random intercepts at the individual level and standard errors clustered at the group level (reported in parentheses). \*\*\*, \*\*, and \* indicate significance at the 1, 5, and 10 percent critical level. Subjects were classified as experienced if they had participated in more than 5 prior experiments. Contains 10 sessions: 5 Public and 5 Dyadic ID.

**Table A7. Regression analysis on reporting behaviour in Stage 1**

	Reported 1	Reported 2	Reported 3	Reported 4	Reported 5	Reported 6
Period	0.007 (0.010)	0.001 (0.009)	-0.005 (0.009)	0.006 (0.008)	-0.022*** (0.008)	0.015* (0.008)
<i>Ref. Cat: Dyadic ID</i>						
Public	-0.214*** (0.083)	-0.283*** (0.073)	-0.145** (0.069)	-0.025 (0.062)	-0.036 (0.059)	0.415*** (0.084)
Dyadic no ID	0.078 (0.072)	-0.056 (0.066)	-0.091 (0.064)	0.011 (0.060)	0.000 (0.058)	0.041 (0.083)
Experienced (lab)	-0.367*** (0.106)	-0.254*** (0.090)	-0.135* (0.082)	-0.103 (0.073)	0.021 (0.068)	0.408*** (0.095)
<i>Ref. Cat: risk seeking</i>						
Risk neutral	0.135 (0.102)	0.136 (0.090)	0.081 (0.088)	-0.092 (0.079)	-0.046 (0.076)	-0.095 (0.107)
Risk averse	0.113 (0.098)	0.056 (0.086)	0.100 (0.084)	-0.035 (0.074)	-0.050 (0.072)	-0.094 (0.102)
Age	0.014 (0.013)	0.017 (0.012)	-0.007 (0.012)	0.016 (0.010)	0.017* (0.010)	-0.041*** (0.014)
Female	-0.008 (0.068)	-0.027 (0.060)	0.109* (0.058)	0.037 (0.053)	0.050 (0.051)	-0.134* (0.072)
Extraversion	-0.013 (0.018)	-0.004 (0.016)	0.007 (0.016)	-0.007 (0.014)	-0.004 (0.014)	0.011 (0.019)
Agreeableness	0.015 (0.020)	-0.016 (0.018)	0.001 (0.017)	0.009 (0.016)	0.008 (0.015)	-0.015 (0.021)
Conscientiousness	0.024 (0.021)	0.017 (0.018)	-0.013 (0.018)	0.012 (0.016)	0.016 (0.016)	-0.037* (0.022)
Neuroticism	0.025 (0.016)	0.000 (0.015)	0.007 (0.014)	-0.005 (0.013)	-0.009 (0.012)	-0.005 (0.018)
Openness	-0.019 (0.017)	-0.014 (0.015)	0.008 (0.015)	0.026** (0.013)	0.004 (0.013)	-0.016 (0.018)
CognitiveScore	0.045 (0.029)	0.013 (0.026)	0.024 (0.025)	-0.006 (0.023)	0.000 (0.022)	-0.037 (0.031)
N	3780	3780	3780	3780	3780	3780

*Note:* coefficients from random effects probit regressions run on dummy variables for each reported value in Stage 1. Results are qualitatively similar to multinomial probit regression with standard errors clustered at the individual level. \*\*\*, \*\*, and \* indicate significance at the 1, 5, and 10 percent critical level. Subjects were classified as experienced if they had participated in more than 5 prior experiments.

**Table A8. Regression analysis on reporting behaviour in Stage 3**

	Reported 1	Reported 2	Reported 3	Reported 4	Reported 5	Reported 6
Period	0.005 (0.004)	-0.011*** (0.003)	-0.010*** (0.003)	-0.006** (0.003)	-0.003 (0.003)	0.016*** (0.004)
<i>Ref. Cat: Dyadic ID</i>						
Public	-0.383*** (0.114)	-0.394*** (0.099)	-0.317*** (0.058)	-0.224*** (0.071)	0.050 (0.077)	0.756*** (0.129)
Dyadic no ID	-0.012 (0.110)	0.143** (0.065)	0.082 (0.057)	-0.014 (0.074)	-0.080 (0.077)	-0.074 (0.138)
Experienced (lab)	-0.194** (0.084)	-0.196** (0.089)	-0.084 (0.077)	-0.072 (0.080)	0.009 (0.047)	0.308*** (0.116)
Mean Dice Stage 1	0.076* (0.045)	-0.010 (0.034)	-0.082** (0.035)	-0.099*** (0.037)	-0.100*** (0.034)	0.095 (0.059)
<i>Ref. Cat: risk seeking</i>						
Risk neutral	0.035 (0.083)	-0.105 (0.087)	0.012 (0.075)	0.063 (0.066)	0.113 (0.094)	-0.140 (0.116)
Risk averse	0.081 (0.077)	0.029 (0.078)	0.034 (0.069)	0.130* (0.072)	0.145** (0.069)	-0.293*** (0.108)
Age	0.005 (0.014)	0.019* (0.010)	0.019** (0.009)	0.002 (0.010)	0.006 (0.009)	-0.030 (0.020)
Female	0.127** (0.062)	-0.008 (0.054)	-0.057 (0.039)	0.036 (0.041)	-0.004 (0.052)	-0.063 (0.068)
Extraversion	-0.001 (0.015)	-0.002 (0.011)	-0.005 (0.011)	-0.008 (0.015)	-0.012 (0.013)	0.006 (0.020)
Agreeableness	-0.032* (0.017)	0.012 (0.018)	-0.020 (0.016)	-0.007 (0.016)	0.028** (0.014)	0.015 (0.030)
Conscientiousness	-0.028 (0.019)	0.021 (0.015)	0.027 (0.017)	-0.008 (0.017)	-0.002 (0.017)	-0.002 (0.027)
Neuroticism	-0.035** (0.015)	0.021* (0.012)	0.015 (0.013)	0.005 (0.013)	0.002 (0.015)	0.008 (0.020)
Openness	-0.008 (0.017)	0.010 (0.013)	0.019 (0.012)	0.001 (0.012)	-0.001 (0.013)	-0.003 (0.021)
CognitiveScore	-0.004 (0.023)	-0.010 (0.023)	-0.007 (0.021)	0.010 (0.023)	0.015 (0.019)	-0.011 (0.042)
N	8300	8300	8300	8300	8300	8300

*Note:* coefficients from random effects probit regressions run on dummy variables for each reported value in Stage 3. Results are qualitatively similar to multinomial probit regression with standard errors clustered at the group level. \*\*\*, \*\*, and \* indicate significance at the 1, 5, and 10 percent critical level. Subjects were classified as experienced if they had participated in more than 5 prior experiments.

**Table A9. Frequency of second movers not matching nor undercutting by first movers' choice**

FM report	Frequency
1	0.311
2	0.248
3	0.168
4	0.134
5	0.124
6	0.069
Total	0.154

**Table A10. Frequency of second movers not matching nor undercutting by round**

Round	Frequency	Round	Frequency
1	0.300	16	0.135
2	0.237	17	0.127
3	0.230	18	0.118
4	0.225	19	0.180
5	0.159	20	0.123
6	0.203	21	0.125
7	0.197	22	0.157
8	0.124	23	0.104
9	0.168	24	0.129
10	0.186	25	0.140
11	0.142	26	0.120
12	0.119	27	0.123
13	0.088	28	0.119
14	0.155	29	0.090
15	0.161	30	0.116
Total			0.154

**Table A11. Frequency of undercutting by round with between-treatment differences**

Undercutting	Public (1)		Dyadic ID (2)		Dyadic no ID (3)		t-test	t-test	t-test
	N	Mean	N	Mean	N	Mean	(1)-(2)	(1)-(3)	(2)-(3)
Round 1	21	0.460	22	0.356	20	0.392	0.104	0.069	-0.036
Round 2	21	0.492	22	0.303	20	0.242	0.189*	0.250**	0.061
Round 3	21	0.389	22	0.364	19	0.325	0.025	0.064	0.039
Round 4	21	0.294	22	0.394	20	0.300	-0.100	-0.006	0.094
Round 5	21	0.254	22	0.455	20	0.375	-0.201**	-0.121	0.080
Round 6	21	0.262	22	0.280	20	0.383	-0.018	-0.121	-0.103
Round 7	21	0.325	22	0.326	20	0.292	-0.000	0.034	0.034
Round 8	21	0.302	22	0.500	19	0.289	-0.198*	0.012	0.211**
Round 9	21	0.310	22	0.280	20	0.275	0.029	0.035	0.005
Round 10	21	0.230	22	0.402	20	0.300	-0.171*	-0.070	0.102
Round 11	21	0.286	22	0.477	20	0.333	-0.192*	-0.048	0.144
Round 12	21	0.302	22	0.341	20	0.367	-0.039	-0.065	-0.026
Round 13	21	0.286	22	0.371	20	0.417	-0.085	-0.131	-0.045
Round 14	21	0.317	22	0.417	20	0.308	-0.099	0.009	0.108
Round 15	21	0.246	21	0.373	20	0.308	-0.127	-0.062	0.065
Round 16	21	0.246	22	0.250	20	0.525	-0.004	-0.279**	-0.275**
Round 17	21	0.206	22	0.462	19	0.360	-0.256**	-0.153	0.102
Round 18	21	0.357	22	0.303	20	0.400	0.054	-0.043	-0.097
Round 19	21	0.206	22	0.394	20	0.350	-0.188*	-0.144	0.044
Round 20	21	0.357	22	0.318	19	0.430	0.039	-0.073	-0.112
Round 21	21	0.246	22	0.288	19	0.535	-0.042	-0.289**	-0.247**
Round 22	21	0.198	22	0.470	19	0.289	-0.271**	-0.091	0.180
Round 23	21	0.270	22	0.348	20	0.392	-0.079	-0.122	-0.043
Round 24	21	0.294	22	0.394	19	0.439	-0.100	-0.145	-0.045
Round 25	21	0.183	22	0.515	20	0.425	-0.333***	-0.242**	0.090
Round 26	21	0.310	22	0.348	20	0.350	-0.039	-0.040	-0.002
Round 27	21	0.373	21	0.563	20	0.467	-0.190*	-0.094	0.097
Round 28	21	0.270	21	0.579	20	0.392	-0.310***	-0.122	0.188
Round 29	21	0.429	22	0.455	20	0.450	-0.026	-0.021	0.005
Round 30	21	0.460	22	0.500	20	0.625	-0.040	-0.165	-0.125

Note: N identifies the number of independent groups. T-tests on between-treatment differences are run on group-level averages to preserve the independence of observations. \*\*\*, \*\*, and \* indicate significance at the 1, 5, and 10 percent critical level.

**Table A12. Differences in frequency of reporting six in Stage 3 (collaborative) Vs 1 (individual) for First Movers**

Variable	Public (1)		Dyadic ID (2)		Dyadic no ID (3)		t-test	t-test	t-test
	N	Mean	N	Mean	N	Mean	(1)-(2)	(1)-(3)	(2)-(3)
	[n]	[SD]	[n]	[SD]	[n]	[SD]	[d]	[d]	[d]
Collab-ind	126	0.135	129	0.030	118	-0.024	0.105**	0.159***	0.054
	[21]	[0.032]	[22]	[0.023]	[20]	[0.025]	[0.719]	[0.943]	[0.400]

Note: The dependent variable is the difference in the frequency of reporting six in the collaborative task for First Movers (Stage 3) and in the individual task (Stage 1) for the same subject. N identifies the number of subjects and n the number of (independent) groups. t-tests on between-treatment differences are run on group-level averages (thus with n observations) to preserve the independence of observations. d indicates Cohen's d. \*\*\*, \*\*, and \* indicate significance at the 1, 5, and 10 percent critical level.

**Table A13. Regression analysis with Stage 1 and Stage 2 lying interacted with treatments**

	Opting to collaborate				Undercutting			
<i>Ref. Cat: Dyadic ID</i>								
Public	1.635** (0.813)	3.489*** -1.185	0.788** (0.325)	0.697** (0.326)	-0.481 (0.567)	0.915 (0.865)	-0.341** (0.166)	-0.402** (0.171)
Dyadic no ID	0.413 (0.803)	0.128 -1.497	-0.177 (0.272)	-0.188 (0.270)	-0.305 (0.602)	-0.225 (0.891)	0.18 (0.143)	0.169 (0.141)
Public # Mean Dice Stage 1	-0.143 (0.195)	-0.640** (0.280)			0.023 (0.142)	-0.295 (0.195)		
Dyadic no ID # Mean Dice Stage 1	-0.072 (0.206)	-0.018 (0.385)			0.107 (0.152)	0.098 (0.221)		
Public # Lied in Stage 2			0.078 (0.458)	0.033 (0.461)			0.082 (0.273)	0.061 (0.257)
Dyadic no ID # Lied in Stage 2			0.593 (0.433)	0.682 (0.424)			-0.138 (0.238)	-0.074 (0.218)
Mean Dice Stage 1	0.219 (0.145)	0.428* (0.221)		0.23 (0.151)	0.128 (0.102)	0.295** (0.120)		0.190** (0.087)
Lied in Stage 2		0.155 (0.195)	-0.042 (0.282)	-0.093 (0.286)		0.047 (0.099)	0.066 (0.202)	0.035 (0.184)
Period	-0.007* (0.004)	-0.006 (0.005)	-0.007 (0.005)	-0.007 (0.005)	0.004 (0.004)	0.002 (0.005)	0.002 (0.005)	0.002 (0.005)
Experienced (Lab*)	0.03 (0.273)	-0.049 (0.314)	-0.01 (0.304)	-0.091 (0.311)	-0.234** (0.111)	-0.062 (0.165)	-0.008 (0.163)	-0.08 (0.163)
<i>Ref. Cat: risk seeking</i>								
Risk neutral	0.002 (0.241)	0.106 (0.315)	0.073 (0.330)	0.106 (0.329)	0.082 (0.120)	0.126 (0.198)	0.131 (0.191)	0.146 (0.193)
Risk averse	0.004 (0.216)	0.076 (0.279)	0.107 (0.285)	0.109 (0.283)	0.135 (0.124)	0.188 (0.187)	0.218 (0.182)	0.218 (0.185)
Age	0.004 (0.034)	-0.013 (0.040)	-0.012 (0.041)	-0.005 (0.041)	0.013 (0.015)	0.021 (0.023)	0.021 (0.023)	0.025 (0.023)
Female	0.156 (0.161)	0.065 (0.216)	0.092 (0.225)	0.126 (0.227)	0.023 (0.080)	0.014 (0.096)	0.002 (0.098)	0.028 (0.095)
Extraversion	0.024 (0.039)	0.023 (0.049)	0.004 (0.050)	0.006 (0.049)	-0.036* (0.020)	-0.058* (0.030)	-0.065** (0.030)	-0.065** (0.030)
Agreeableness	0.096** (0.043)	0.110* (0.064)	0.116* (0.065)	0.120* (0.063)	-0.022 (0.028)	-0.059* (0.035)	-0.063* (0.035)	-0.056 (0.035)
Conscientiousness	-0.067 (0.050)	-0.049 (0.063)	-0.043 (0.064)	-0.042 (0.063)	0.001 (0.028)	-0.043 (0.039)	-0.049 (0.033)	-0.049 (0.034)
Neuroticism	-0.015 (0.037)	0.021 (0.058)	0.015 (0.059)	0.024 (0.057)	-0.034 (0.021)	-0.083*** (0.028)	-0.091*** (0.030)	-0.085*** (0.029)
Openness	-0.116***	0.007	0.009	0.017	0.022	0.052*	0.04	0.050*

	(0.040)	(0.053)	(0.053)	(0.052)	(0.019)	(0.028)	(0.028)	(0.029)
CognitiveScore	0.052	0.164*	0.199**	0.224**	-0.055	-0.084	-0.083	-0.062
	(0.068)	(0.088)	(0.089)	(0.089)	(0.043)	(0.054)	(0.052)	(0.052)
N	11340	5670	5670	5670	3509	1803	1803	1803

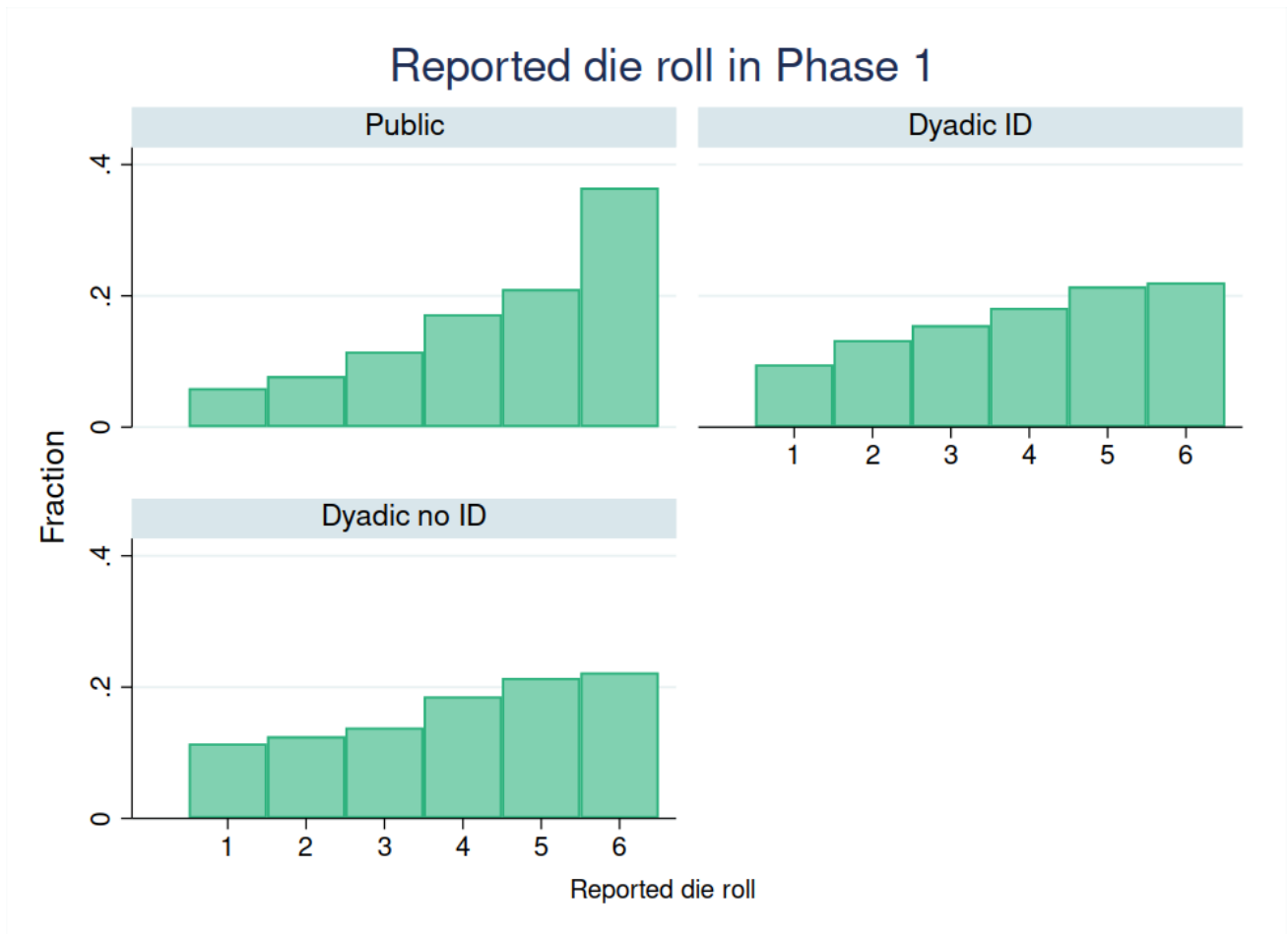
Notes: analyses of Tables 3 and 4, specification 5, with lying in Stages 1 and 2 interacted with treatments. Coefficients from random effects probit models with random intercepts at the individual level and standard errors clustered at the group level (reported in parentheses). \*\*\*, \*\*, and \* indicate significance at the 1, 5, and 10 percent critical level.

### 3. SUPPLEMENTARY FIGURES

Figure A1. Individual die rolling task (Stage 1)

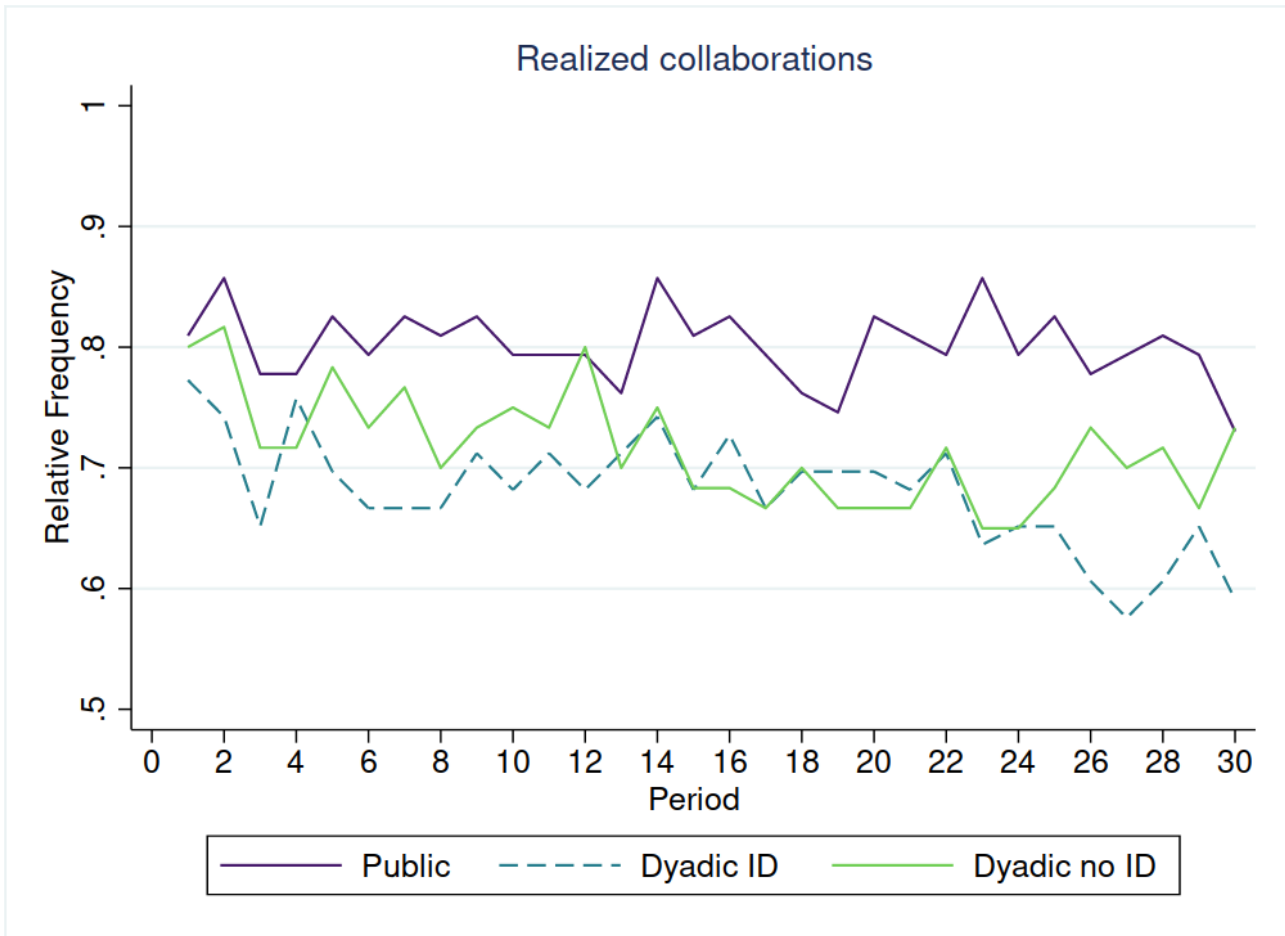


Figure A2. Individual die rolling task (Stage 1) by treatment





**Figure A3. Frequency of realized collaborations by treatment**



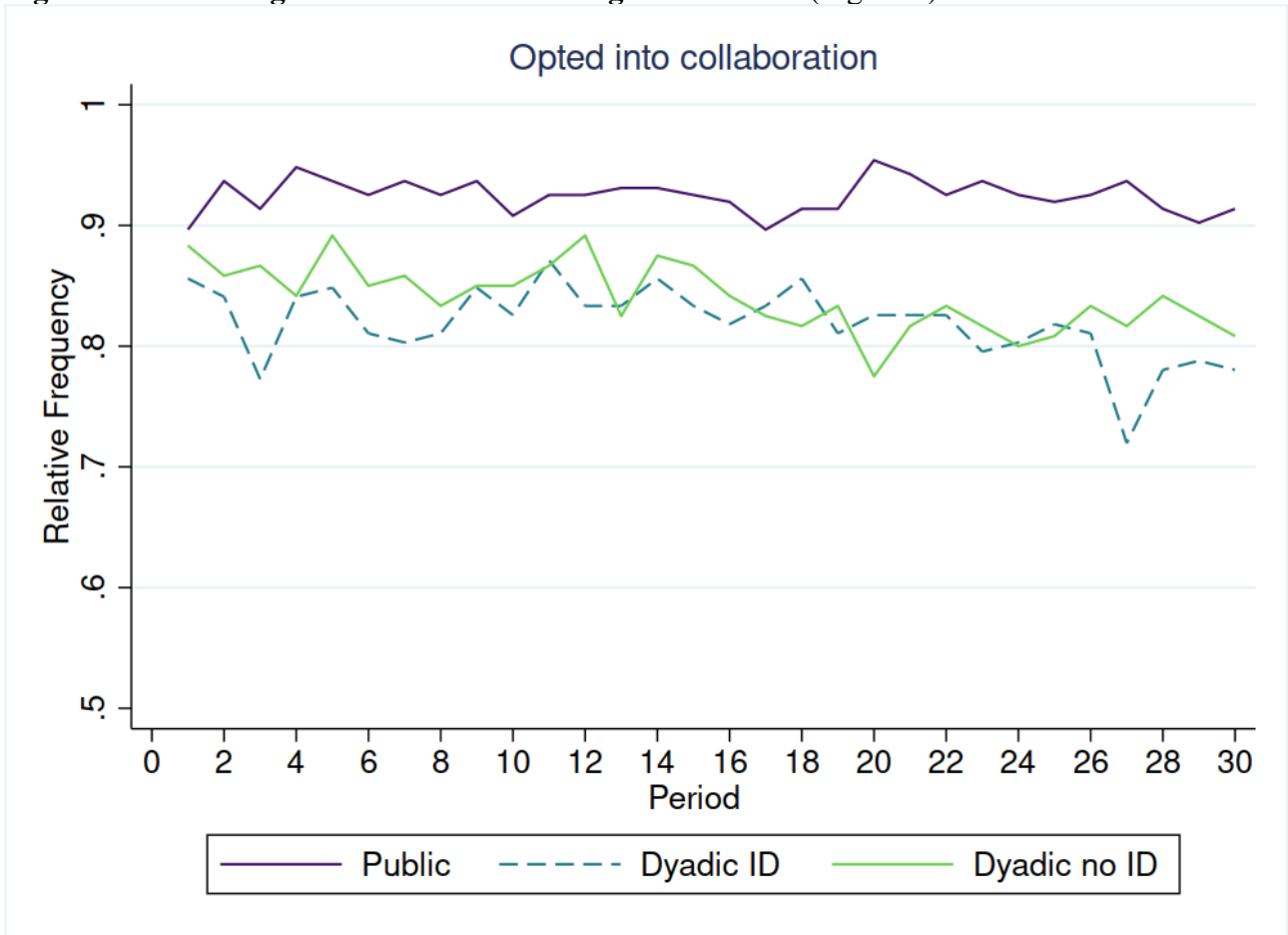
**4. ANALYSIS WITH ADDITIONAL COVID SESSIONS**

**Table A14. Frequencies of opting in and of actually realized collaboration (Table 2)**

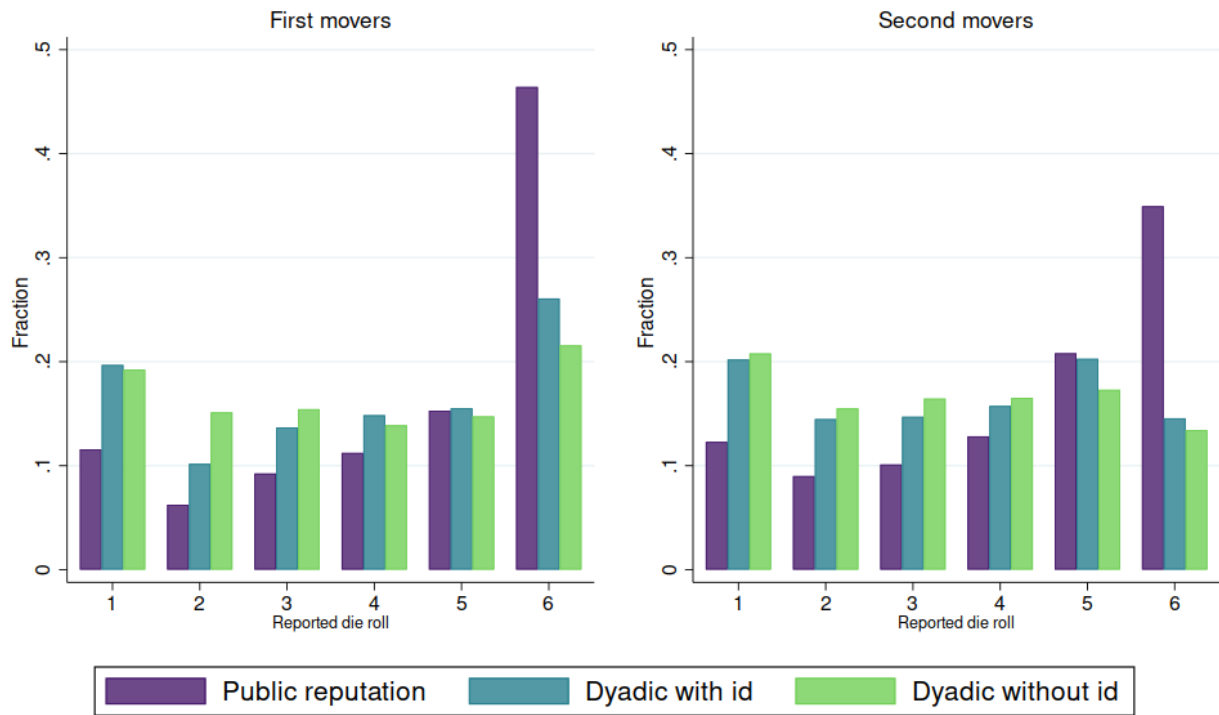
Variable	Public (1)		Dyadic ID (2)		Dyadic no ID (3)		t-test	t-test	t-test
	N [n]	Mean [SD]	N [n]	Mean [SD]	N [n]	Mean [SD]	(1)-(2) [d]	(1)-(3) [d]	(2)-(3) [d]
Opt in	5220 [29]	0.925 [0.264]	3960 [22]	0.819 [0.385]	3600 [20]	0.840 [0.367]	0.106*** [1.417]	0.085*** [0.929]	-0.021 [-0.218]
Realized	5220 [29]	0.792 [0.406]	3960 [22]	0.680 [0.467]	3600 [20]	0.716 [0.451]	0.112*** [1.234]	0.075** [0.690]	-0.036 [-0.348]

*Note:* *N* identifies the total number of observations and *n* the number of (independent) groups. t-tests on between-treatment differences are run on group-level averages (thus with *n* observations) to preserve the independence of observations. *d* indicates Cohen’s *d*. \*\*\*, \*\*, and \* indicate significance at the 1, 5, and 10 percent critical level.

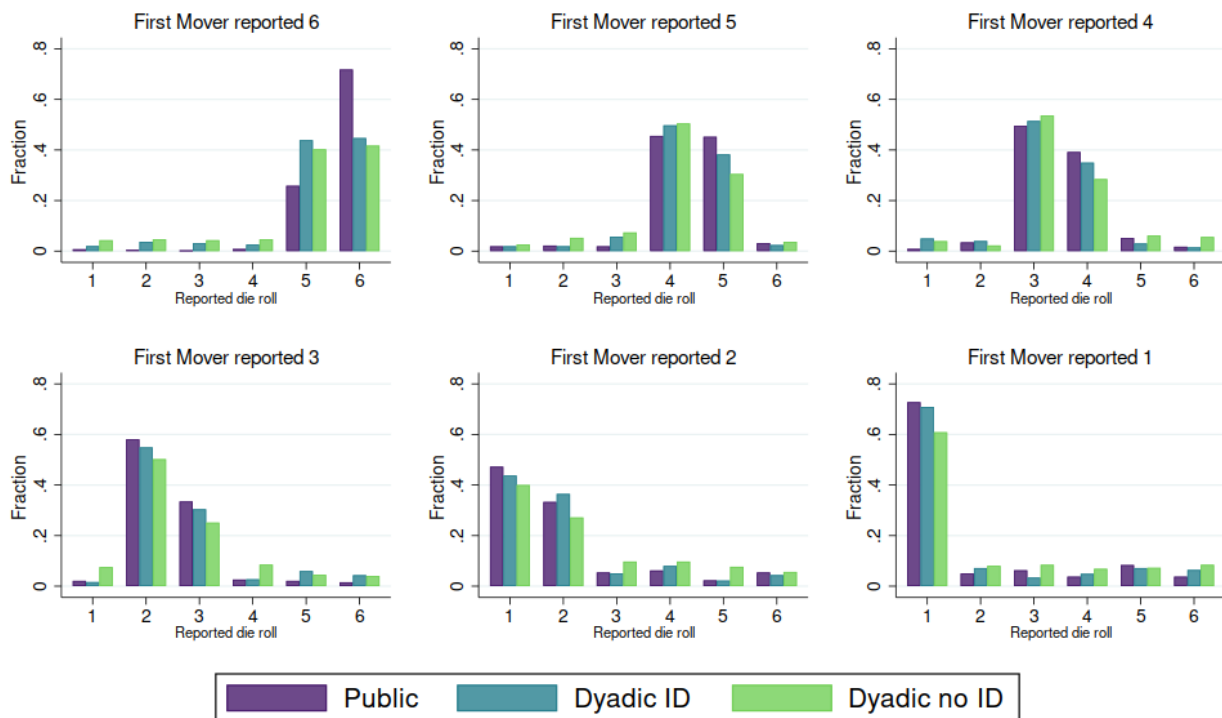
Figure A4. Choosing to collaborate according to treatment (Figure 2)



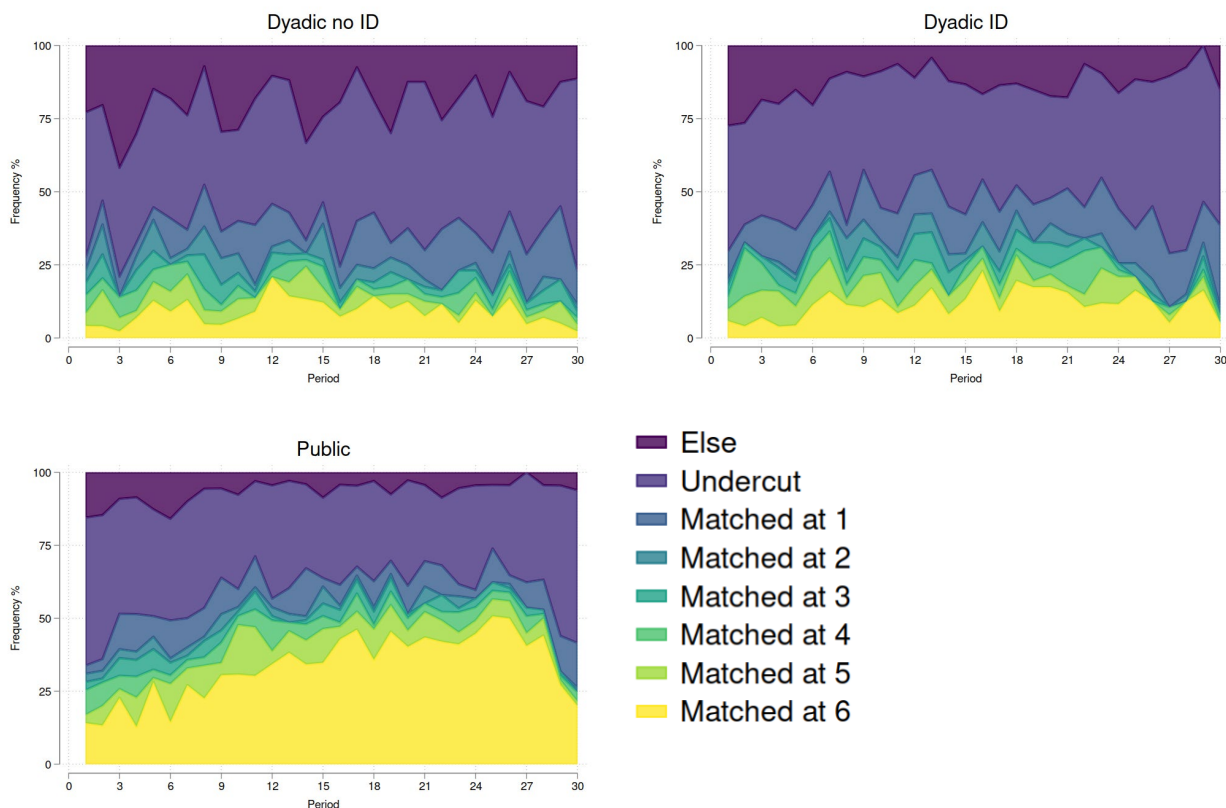
**Figure A5. Reported die roll for first (left panel) and second (right panel) mover by treatment (Figure 3)**



**Figure A6. Distribution of second movers' choice (reported die roll when entering the villain's dilemma) conditional on first movers' choice (Figure 4)**



**Figure A7. Outcomes in the villain’s dilemma according to treatment (Figure 5)**



**Table A15. Frequency of reporting six by treatment, role, and round in the Stage 3 (Table 3)**

<i>First Movers</i>					
	Stage 1	Stage 3, round 1	Stage 3, all	St1-St3r1	St1-St3
Public	0.308	0.239	0.474	0.069	-0.166***
Dyadic ID	0.194	0.137	0.245	0.057	-0.051
Dyadic no ID	0.223	0.125	0.242	0.098*	-0.019
<i>Second Movers</i>					
	Stage 1	Stage 3, round 1	Stage 3, all	St1-St3r1	St1-St3
Public	0.373	0.225	0.343	0.148**	0.030
Dyadic ID	0.253	0.137	0.166	0.116***	0.087***
Dyadic no ID	0.217	0.063	0.128	0.154***	0.089***

Notes: frequencies of players’ reporting 6, by treatment and by stage. First and second mover roles refer to the player’s role in the first round of Stage 3. Between-stage comparisons (last two columns) are tested via paired *t* tests run on individual-level frequencies of reporting 6. \*\*\*, \*\*, and \* indicate significance at the 1, 5, and 10 percent critical level.

**Table A16. Opting to collaborate in the villain’s dilemma (Table 4)**

	Model 1	Model 2	Model 3	Model 4	Model 5
Period	-0.001* (0.000)	-0.001 (0.001)	-0.001* (0.001)	-0.001* (0.000)	-0.001** (0.000)
<i>Ref. Cat: Dyadic ID</i>					
Public	0.122*** (0.019)	0.065** (0.029)	0.160*** (0.029)	0.113*** (0.019)	0.106*** (0.019)
Dyadic no ID	0.024 (0.027)	0.017 (0.035)	0.031 (0.039)	0.023 (0.026)	0.019 (0.025)
Experienced (Lab)	0.030 (0.030)	0.005 (0.039)	0.029 (0.052)	0.013 (0.033)	0.005 (0.035)
Mean Dice Stage 1		0.042** (0.019)	0.015 (0.018)	0.032** (0.012)	0.033*** (0.012)
Lied in Stage 2		0.014 (0.023)			
Trusted in Stage 2			-0.042 (0.028)		
<i>Ref. Cat: risk seeking</i>					
Risk neutral		0.040 (0.040)	-0.034 (0.039)	0.002 (0.027)	0.015 (0.029)
Risk averse		0.027 (0.035)	-0.015 (0.036)	0.007 (0.024)	0.018 (0.027)
Age				0.000 (0.004)	0.000 (0.004)
Female				0.001 (0.019)	0.015 (0.020)
Extraversion					0.001 (0.005)
Agreeableness					0.010* (0.005)
Conscientiousness					-0.009 (0.006)
Neuroticism					-0.002 (0.004)
Openness					-0.013*** (0.005)
Cognitive Reflection Score					0.011 (0.009)
N	12780	6390	6390	12780	12780

Notes: Average marginal effects from random effects probit models with random intercepts at the individual level and standard errors clustered at the group level (reported in parentheses). \*\*\*, \*\*, and \* indicate significance at the 1, 5, and 10 percent critical level. Subjects were classified as experienced if they had participated in more than 5 prior experiments.

<b>Table A17. Undercutting instead of matching in the villain's dilemma (Table 5)</b>					
	Model 1	Model 2	Model 3	Model 4	Model 5
Period	0.001 (0.001)	0.000 (0.002)	0.002 (0.001)	0.001 (0.001)	0.001 (0.001)
<i>Ref. Cat:</i> <i>Dyadic ID</i>					
Public	-0.072** (0.031)	-0.084* (0.048)	-0.086** (0.037)	-0.098*** (0.034)	-0.092*** (0.032)
Dyadic no ID	0.036 (0.031)	0.032 (0.045)	0.038 (0.042)	0.033 (0.032)	0.045 (0.034)
Experienced (Lab)	-0.085** (0.035)	-0.059 (0.050)	-0.175*** (0.054)	-0.120*** (0.035)	-0.108*** (0.035)
Mean Dice Stage 1		0.049 (0.030)	0.046* (0.025)	0.043** (0.020)	0.044** (0.020)
Lied in Stage 2		-0.001 (0.036)			
Trusted in Stage 2			0.053 (0.034)		
<i>Ref. Cat: risk seeking</i>					
Risk neutral		-0.023 (0.063)	0.034 (0.042)	0.014 (0.039)	0.001 (0.041)
Risk averse		0.005 (0.066)	0.076* (0.044)	0.048 (0.041)	0.044 (0.042)
Age				0.007 (0.005)	0.006 (0.005)
Female				0.017 (0.022)	0.005 (0.023)
Extraversion					-0.013** (0.006)
Agreeableness					-0.003 (0.009)
Conscientiousness					0.004 (0.009)
Neuroticism					-0.009 (0.007)
Openness					0.004 (0.006)

Cognitive Reflection Score					-0.026*	(0.013)
N	3967	2027	1940	3967	3967	

*Notes:* Average marginal effects from random effects probit models with random intercepts at the individual level and standard errors clustered at the group level (reported in parentheses). \*\*\*, \*\*, and \* indicate significance at the 1, 5, and 10 percent critical level. Subjects were classified as experienced if they had participated in more than 5 prior experiments.

## 5. ETHICS

# CESARE

Centro di Economia Sperimentale a Roma Est

### Codice etico (Ethical Statement)

We report in this document the ethical standards required for experiments carried out at, and under the auspices of, the **Centro di Economia Sperimentale della Luiss Guido Carli (CESARE)** of Rome. Any experimentalists carrying out experiments at CESARE will be required to sign their agreement with this form and give a copy to the Director of the Centre. If an experimentalist does not feel able to sign their agreement with this form, perhaps because he or she is doing experiments of a different type, then he or she will have to seek special permission.

### General Principles

Experiments carried out at CESARE LAB should obey the following rules.

#### 1. The purpose of any experiment

Experiments should be carried out for scientific reasons, usually for testing economic theories under controlled laboratory conditions. The ultimate objective is publication of articles in scientific journals.

#### 2. The experimentalist in charge

For any experiment, the person responsible for the experiment should be explicitly named to the Director of CESARE (who should give his or her approval to the experiment), and should sign his or her agreement. He or she will be held responsible for any breach of these rules.

#### 3. Voluntary participation

Subjects in experiments should be participating voluntarily and under no compunction to participate. Subjects will be invited to participate in an experiment through an e-mail sent by the ORSEE system (see below) to people who have voluntarily registered on the database. All registrants have the right, and know that they have the right, to decline any invitation to any experiment. When subjects attend an experiment and are paid, the receipt form that they will be asked to sign will also include a statement that they participated voluntarily. People on the ORSEE register are recruited by e-mail shots. After participation in any experiment, subjects will be asked to sign a form which certifies that they participated voluntarily, and is a receipt for any payment that they received.

#### 4. The tasks involved

The tasks that subjects will be asked to do will not require any physically stressing manual effort and will not impose any physical or mental pain or suffering on the subjects. Usually experiments involve subjects sitting at a computer terminal and responding to problems of an economic nature, though some experiments will require subjects to answer to a non-computerised questionnaire, by filling in some form. There will be no attempt to physically measure subjects' physical or mental state; no medical intervention of any type will be used.

#### 5. The duration of the experiment

In the invitation to the experiment subjects will be told of the expected duration of the experiment, usually under two hours.

#### 6. Payment

Subjects will be told exactly how they will be rewarded for participation in the experiment. Normally the payment will be in money, paid at the end of the experimental session. Often there will be a show-up fee which participants will be paid irrespective of their performance. In addition there will usually be an additional payment which depends upon the subjects' performance in the experiment, the performance of



other participants in the experimental session, and often on a random factor. Any random factor will be explained to the subjects, and any random device will be explained honestly; there will be no manipulation of any random device (other than seeding a random number generator) and no subject's payment will be manipulated downwards in a fraudulent or deceptive manner by any experimentalist. If a subject wishes to leave the experiment before the session is completed he or she will be allowed to do so, and their payment will be the show-up fee told to them at the beginning of the experiment. Subjects will be asked to sign an **CESARE** receipt (see hereafter) for any payment that they receive and these receipts will be the responsibility of the experimentalist in charge of the experiment. These receipts will not be linked in any way to the data from the experiment and will not be used in any publications in any way that could identify individual subjects.

#### **7. Confidentiality**

While subjects will be recruited using the **ORSEE** (Online System for the Recruitment of Subjects in Experimental Economics) system from a database of potential participants (which identifies participants and their contact details), and while data from experiments (including the subjects' performance in an experiment for which they volunteered, and possibly their responses to questionnaires) will be recorded in databases, the two databases (that of **ORSEE** and that from the experiment) will never be married together. Only data from the experiments (and not that from **ORSEE**) will be published. This guarantees that published data will be anonymous and that no individual can be identified from published results. Confidentiality will thus be ensured.

#### **8. Lack of deception**

All subjects will be given clear and written instructions describing what they are being asked to do in the experiment. While they will not be told the purpose of the experiment (in a scientific sense) there will be no deception of the subjects. If any subject has any question concerning the experiment, except those relating to the scientific purpose of the experiment, they will be given an honest answer. If any subject wishes to leave at any point in the experiment, they will be free to do so, and they will be given the show-up fee detailed in the call for the experiment; they will usually not be entitled to any further payment if they have not completed the experiment, irrespective of the time that they have spent in the laboratory.

#### **9. Complaints**

Subjects who feel that they have been unfairly treated in any experiment will be referred to the Director of **CESARE** who will investigate the complaint. Members of **CESARE** will fully cooperate in any such investigation.

#### **10. Ejection from the experiment**

The experimentalist reserves the right to exclude or reject any subject from the experiment if the subject does not respect the rules of the experiment. This is usually only the case when a subject is disruptive or communicates with other subjects (or people outside the laboratory) when the rules say clearly that they should not. Under these circumstances, the show-up fee may not be payable.

#### **11. Additional information given to the subjects**

Occasionally subjects ask additional information – usually about the purpose of the experiment – that experimentalists are reluctant to give until the end of all the sessions relating to a particular experiment. This is to prevent early subjects changing the behaviour of later subjects, which may defeat the point of the experiment. Experimentalists reserve the right not to give such information until the end of the experimental sessions, and to give information that is only relevant to what subjects need to know in order to complete their experimental session. However, it is expected that when the data has been analysed and the results of the experiment written up, the resulting article(s) and data will be put in the public domain and made available to all.

#### **12. Data from the experiment**



Most journals now require that any data used in a published paper are put in the public domain and are made available to all. Data from CESARE experiments will respect this rule, but the data will be made publically available in such a way that anonymity is preserved.

13. CESARE will make an annual report at the end of each academic year to the Prorettore alla Ricerca which will set out the number of experiments and participants, their topics as well as highlighting any issues and problems which have arisen.



### Certification

The form on this page should be completed and signed by any experimentalist responsible for running experiments in the CESARE laboratory. A copy should then be given to the Director of CESARE.

"I the undersigned certify that the experiments that I will run in the CESARE laboratory and under the auspices of CESARE, will be carried out in full conformity with the ethical statement above, and I will be personally responsible that they will be so."

Descriptor of the set of experiments being run..... ANG-FLOWSKI - MARRAZZI  
Name of person responsible for running the experiments..... TRUST AND JUSTICE IN COLLABORATIVE DISHONESTY  
E-mail address..... EMARRAZZI@UNISS.IT  
Period over which the experiments will be run..... 2018 - 2022  
Signature of person responsible for running the experiments..... [Handwritten Signature]  
Signature of Director of CESARE..... [Handwritten Signature]  
Date..... 18 Dec 2018

[Handwritten Signature] 