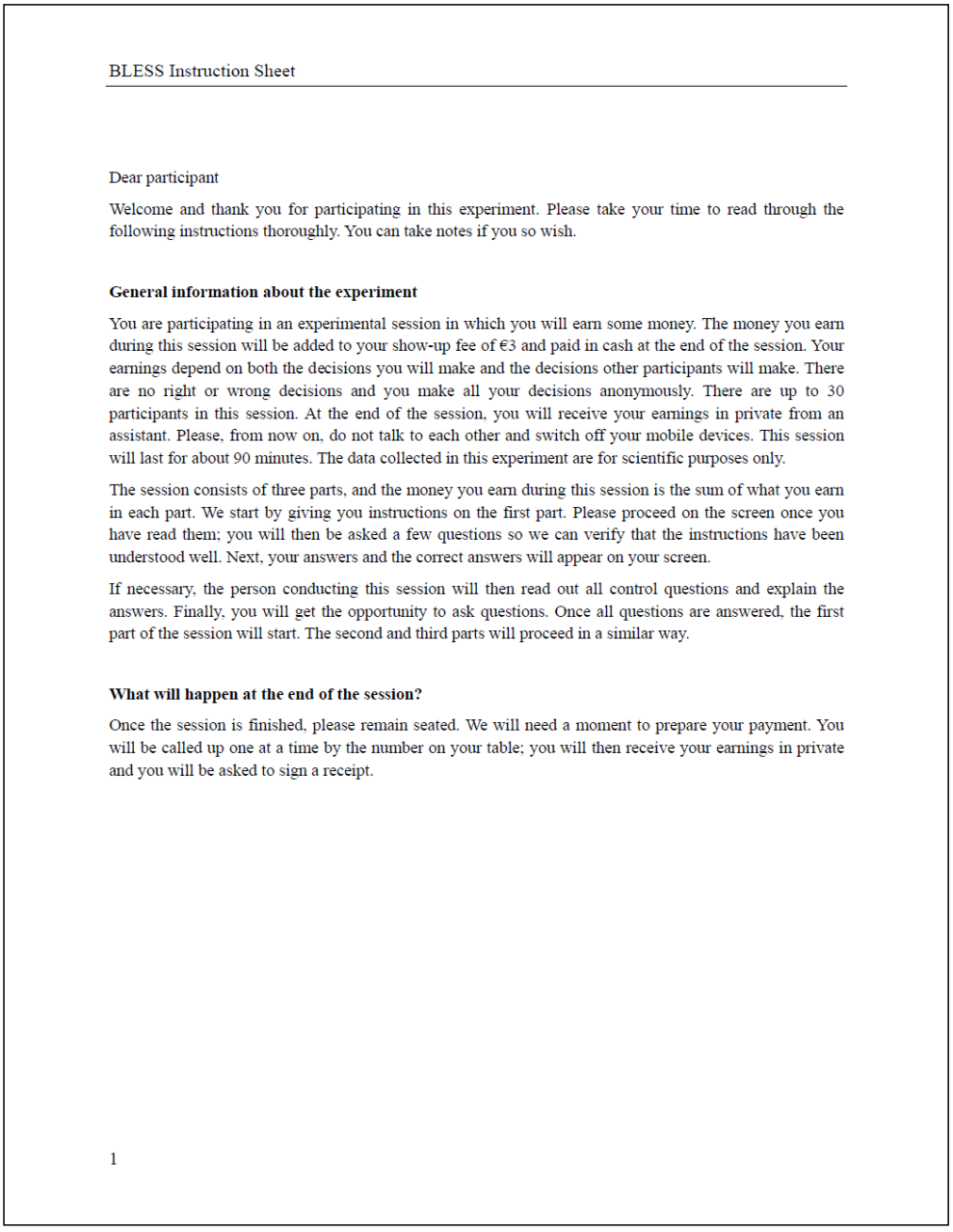
sociological science

Supplement to:

Gambetta, Diego, and Wojtek Przepiorka. 2019. "Sharing Compromising Information as a Cooperative Strategy." Sociological Science 6: 352-379.

Experimental instructions



BLESS Instruction Sheet

Dear participant

Welcome and thank you for participating in this experiment. Please take your time to read through the following instructions thoroughly. You can take notes if you so wish.

General information about the experiment

You are participating in an experimental session in which you will earn some money. The money you earn during this session will be added to your show-up fee of €3 and paid in cash at the end of the session. Your earnings depend on both the decisions you will make and the decisions other participants will make. There are no right or wrong decisions and you make all your decisions anonymously. There are up to 30 participants in this session. At the end of the session, you will receive your earnings in private from an assistant. Please, from now on, do not talk to each other and switch off your mobile devices. This session will last for about 90 minutes. The data collected in this experiment are for scientific purposes only.

The session consists of three parts, and the money you earn during this session is the sum of what you earn in each part. We start by giving you instructions on the first part. Please proceed on the screen once you have read them; you will then be asked a few questions so we can verify that the instructions have been understood well. Next, your answers and the correct answers will appear on your screen.

If necessary, the person conducting this session will then read out all control questions and explain the answers. Finally, you will get the opportunity to ask questions. Once all questions are answered, the first part of the session will start. The second and third parts will proceed in a similar way.

What will happen at the end of the session?

Once the session is finished, please remain seated. We will need a moment to prepare your payment. You will be called up one at a time by the number on your table; you will then receive your earnings in private and you will be asked to sign a receipt.

1

Figure S1: Instructions page 1: Introduction.

BLESS Instruction Sheet

Instructions (Part 1)

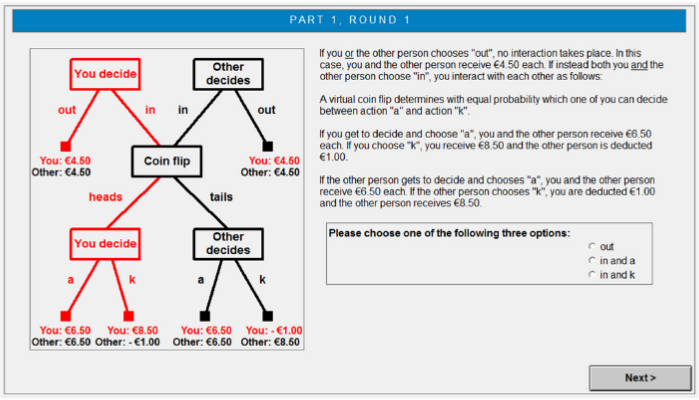
Part 1 of the experiment will last for no less than 7 rounds and no more than 10 rounds. You will not be informed in advance of how many rounds this part will last exactly. In every round, you will be endowed with €1.50 and randomly paired with another participant. In every round, you and the other participant will be asked independently whether or not you want to interact with each other by choosing "in" or "out" on your decision screen (see left part of Figure 1). If only either of both chooses "out", no interaction takes place. In this case, you and the other participant receive €4.50 each.

If instead both of you choose "in", your payoffs will be determined by a virtual coin toss. If the coin turns *heads*, your choice of action determines your and the other participant's payoffs. If the coin turns *tails*, the other participant's choice of action determines both your payoffs.

– *Heads*: If you choose "a", you and the other participant receive €6.50 each; if instead you choose "k", you receive €8.50 and the other participant is deducted €1.
– *Tails*: If the other participant chooses "a", you and the other participant receive €6.50 each; if instead the other participant chooses "k", you are deducted €1 and the other participant receives €8.50.

Since the outcome of the interaction will be determined only after you and the other person made their decisions, you are asked to choose one of the following three options on your decision screen (see right part of Figure 1): "out", "in and a", or "in and k". The other participant is given the same choice. At the end of the round, you will be informed of the outcome of your interaction with the other participant. Before the next round, you will be randomly paired with a new participant.

Figure 1: Decision screen



Your Part 1 earnings will be calculated as follows: At the end of the session, one round will be chosen randomly, and your earnings will be your endowment of €1.50 plus your payoff in that round.

Now proceed on the screen and answer the control questions. You may use these instructions to answer the questions.

2

Figure S2: Instructions page 2: T0 (VG only).

BLESS Instruction Sheet

Instructions (Part 2)

The second part is carried out based on the same interaction as the first part (Figure 1). And same as the first part, the second part will last for no less than 7 rounds and no more than 10 rounds, and you will not be informed in advance of how many rounds exactly. And also in this case, you will be endowed with €1.50 and randomly paired with another participant in each round.

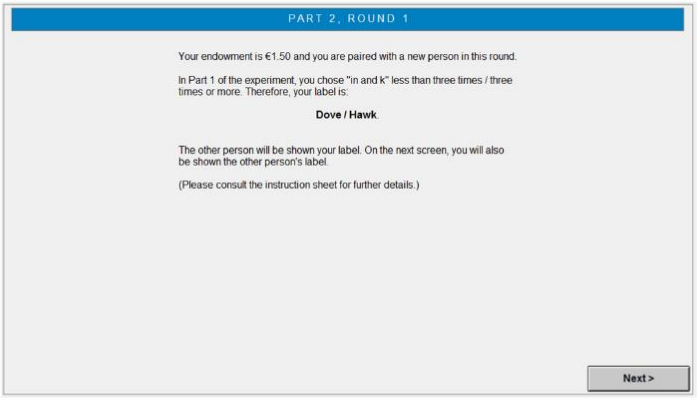
However, there are two differences between the first and the second part:

First, in the second part you will be assigned a label based on the decisions you made in Part 1. You will keep this label until the end of the experiment:

- if, in Part 1, you chose "in and k" twice, once or never, your label is "dove";
- if, in Part 1, you chose "in and k" three times or more (up to eight times), your label is "hawk".

Second, in each round, before you and the other person decide whether or not to interact, you and the other participant will be informed of each other's labels. In other words, you will learn whether the other participant is a dove or a hawk, and the other participant will learn whether you are a dove or a hawk (see Figure 2).

Figure 2: Information screen



Your Part 2 earnings will be calculated as follows: At the end of the session, one round will be chosen randomly, and your earnings will be your endowment of €1.50 plus your payoff in that round.

Now proceed on the screen and answer the control questions. You may use these instructions to answer the questions.

3

Figure S3: Instructions page 3: T1 (VG with automatic label revelation and without penalty).

BLESS Instruction Sheet

Instructions (Part 3)

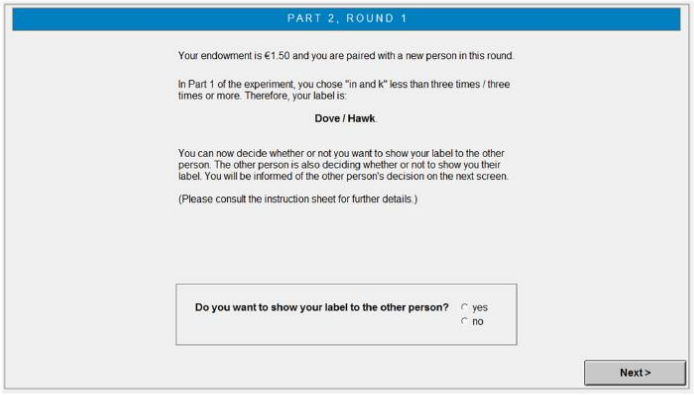
The third part is carried out in the same way as the second part with one difference:

In each round, before you decide whether or not to interact, you and the other participant can decide whether or not to reveal your labels and let the other know whether you are a dove or a hawk (see Figure 3).

We now explain in detail how *revealing the label* works:

Your choice to reveal or not to reveal your label will be transmitted to the other participant before the other participant decides whether to interact with you: the other person will know whether you are a hawk, a dove or prefer not to reveal your label. Of course, you will know this information about the other participant too. Note that any revelation will remain a 'secret' shared only with the other participant in the current round. Moreover, any revelation is inconsequential, if no interaction takes place.

Figure 3: Revelation decision screen

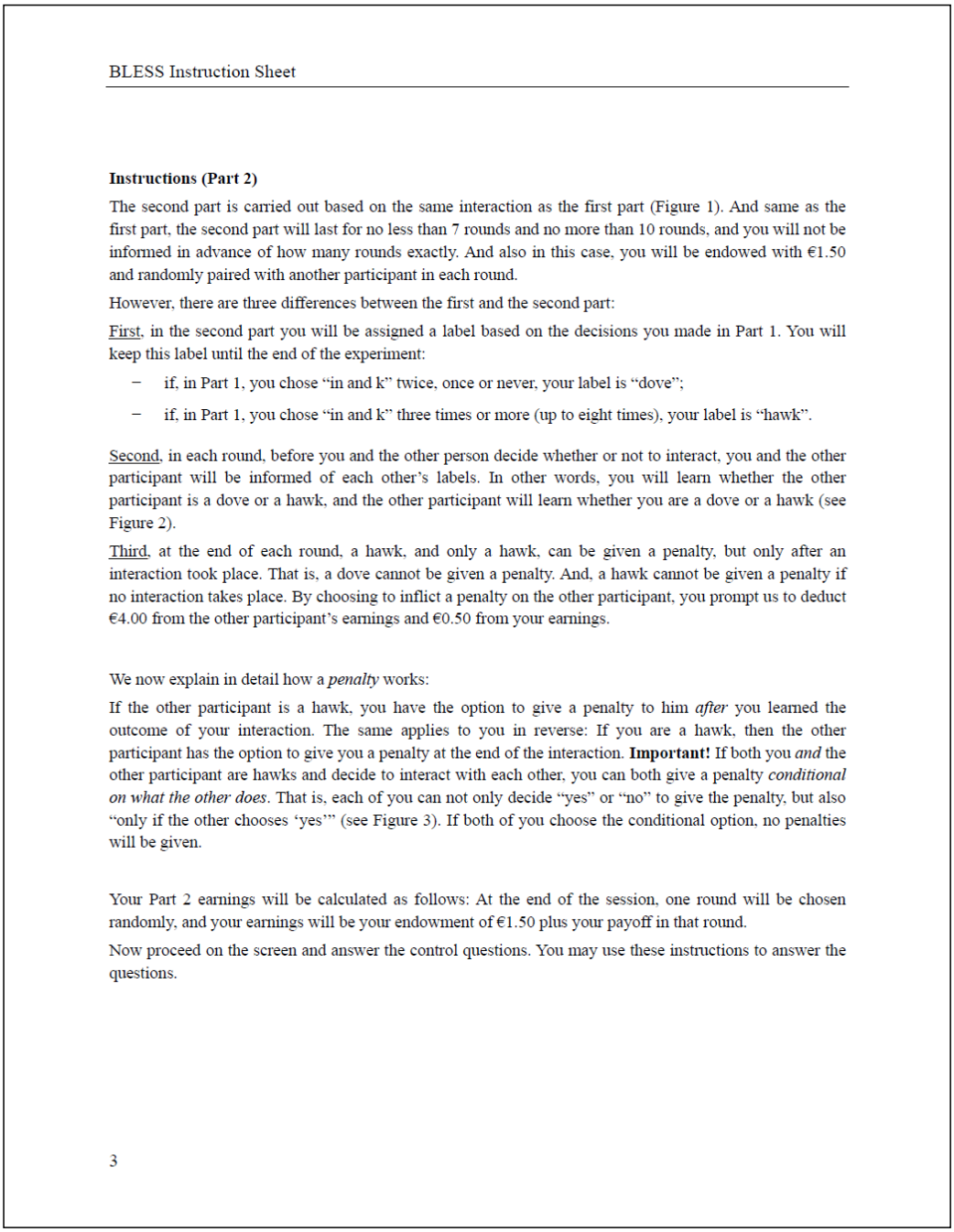


Your Part 3 earnings will be calculated as follows: At the end of the session, one round will be chosen randomly, and your earnings will be your endowment of €1.50 plus your payoff in that round.

Now proceed on the screen and answer the control questions.

4

Figure S4: Instructions page 4: T2 (VG with label revelation by choice and without penalty).



BLESS Instruction Sheet

Instructions (Part 2)

The second part is carried out based on the same interaction as the first part (Figure 1). And same as the first part, the second part will last for no less than 7 rounds and no more than 10 rounds, and you will not be informed in advance of how many rounds exactly. And also in this case, you will be endowed with €1.50 and randomly paired with another participant in each round.

However, there are three differences between the first and the second part:

First, in the second part you will be assigned a label based on the decisions you made in Part 1. You will keep this label until the end of the experiment:

- if, in Part 1, you chose "in and k" twice, once or never, your label is "dove";
- if, in Part 1, you chose "in and k" three times or more (up to eight times), your label is "hawk".

Second, in each round, before you and the other person decide whether or not to interact, you and the other participant will be informed of each other's labels. In other words, you will learn whether the other participant is a dove or a hawk, and the other participant will learn whether you are a dove or a hawk (see Figure 2).

Third, at the end of each round, a hawk, and only a hawk, can be given a penalty, but only after an interaction took place. That is, a dove cannot be given a penalty. And, a hawk cannot be given a penalty if no interaction takes place. By choosing to inflict a penalty on the other participant, you prompt us to deduct €4.00 from the other participant's earnings and €0.50 from your earnings.

We now explain in detail how a *penalty* works:

If the other participant is a hawk, you have the option to give a penalty to him *after* you learned the outcome of your interaction. The same applies to you in reverse: If you are a hawk, then the other participant has the option to give you a penalty at the end of the interaction. **Important!** If both you *and* the other participant are hawks and decide to interact with each other, you can both give a penalty *conditional on what the other does*. That is, each of you can not only decide "yes" or "no" to give the penalty, but also "only if the other chooses 'yes'" (see Figure 3). If both of you choose the conditional option, no penalties will be given.

Your Part 2 earnings will be calculated as follows: At the end of the session, one round will be chosen randomly, and your earnings will be your endowment of €1.50 plus your payoff in that round.

Now proceed on the screen and answer the control questions. You may use these instructions to answer the questions.

3

Figure S5: Instructions page 3: T3 (VG with automatic label revelation and with penalty).

Figure 2: Information screen

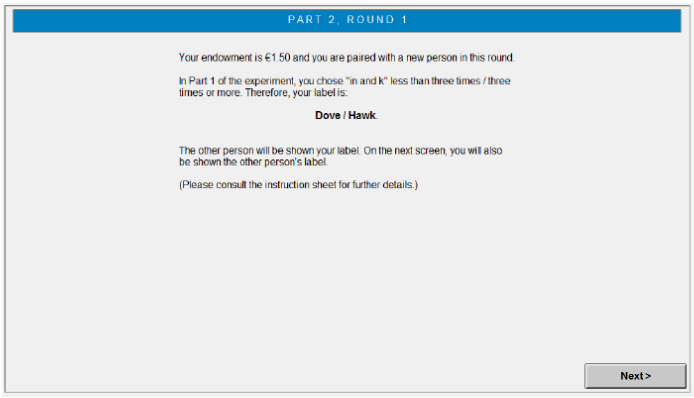
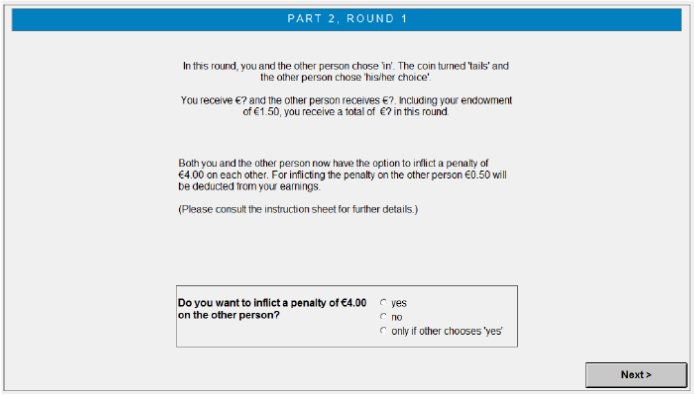


Figure 3: Penalty decision screen after an interaction between two hawks



4

Figure S6: Instructions page 4: T3 (continued).

BLESS Instruction Sheet

Instructions (Part 3)

The third part is carried out in the same way as the second part with one difference:

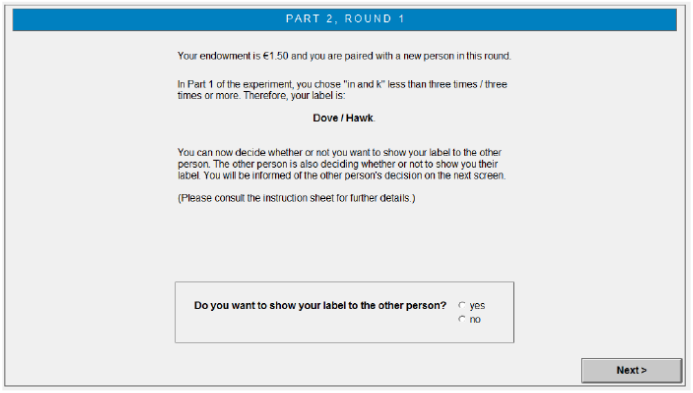
In each round, before you decide whether or not to interact, you and the other participant can decide whether or not to reveal your labels and let the other know whether you are a dove or a hawk (see Figure 4).

We now explain in detail how *revealing the label* works:

Your choice to reveal or not to reveal your label will be transmitted to the other participant before the other participant decides whether to interact with you: the other person will know whether you are a hawk, a dove or prefer not to reveal your label. Of course, you will know this information about the other participant too. Note that any revelation will remain a 'secret' shared only with the other participant in the current round. Moreover, any revelation is inconsequential, if no interaction takes place.

Also in this case, as in the second part, at the end of each round, a hawk, and only a hawk, can be given a penalty, but only if the hawk revealed their label *and* after an interaction took place. That is, a dove, or a hawk who did not reveal their label, cannot be given a penalty. And, a hawk who revealed their label cannot be given a penalty if no interaction takes place. By choosing to inflict a penalty on the other participant, you prompt us to deduct €4.00 from the other participant's earnings and €0.50 from your earnings.

Figure 4: Revelation decision screen



Your Part 3 earnings will be calculated as follows: At the end of the session, one round will be chosen randomly, and your earnings will be your endowment of €1.50 plus your payoff in that round.

Now proceed on the screen and answer the control questions.

5

Figure S7: Instructions page 5: T4 (VG with label revelation by choice and with penalty).

Regression tables and additional figures

Figures 3, 4 and 5 presented in the main part of the paper are based on the model estimations presented in tables S1, S2 and S3, respectively.

Table S1: Multinomial logit models of subjects' VG decisions in T0

	M1		M2	
	Coef.	SE	Coef.	SE
Stay out (base category)				
Trust and cooperate				
Const.	0.784***	0.150		
Dove			0.689***	0.190
Hawk			0.357	0.272
Trust and defect				
Const.	0.524***	0.153		
Dove			-1.504***	0.219
Hawk			3.379***	0.278
N_1	1488		1488	
N_2	186		186	
pseudo R^2	-0.00		0.18	

Notes: The table lists coefficient estimates and cluster robust standard errors from multinomial logistic regression models (*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$; for two-sided tests). The categorical dependent variable is one if the subject chose "stay out," it is two if the subject chose "trust and cooperate," and it is three if the subject chose "trust and defect" in the VG. Note that the dummy variables "Dove" and "Hawk" are one if a subject was labelled dove or hawk, respectively, after having played the eight VG rounds in T0. N_1 denotes the number of cases (decisions) and N_2 denotes the number of clusters (subjects).

Table S2: Multinomial logit models of VG decisions in T1 to T4

	M1	
	Coef.	SE
Stay out (base category)		
Trust and cooperate		
Dove meets dove (a)		
T1	1.022***	0.296
T2	1.006**	0.329
T3	1.671***	0.372
T4	1.997***	0.513
Hawk meets hawk (b)		
T1	0.262	0.324
T2	-0.288	0.900
T3	0.367	0.308
T4	1.386	0.812
Dove meets hawk (c)		
T1	-1.241***	0.357
T2	-1.705***	0.425
T3	0.674*	0.308
T4	0.000	0.473
Hawk meets dove (d)		
T1	1.684***	0.489
T2	3.045**	1.006
T3	-0.595*	0.256
T4	0.140	0.425
Trust and defect		
Dove meets dove (a)		
T1	-0.506	0.415
T2	-0.549	0.453
T3	-0.916	0.507
T4	0.375	0.573
Hawk meets hawk (b)		
T1	1.194***	0.311
T2	1.749***	0.521
T3	0.217	0.291
T4	-0.000	1.003
Dove meets hawk (c)		
T1	-1.556***	0.337
T2	-1.522***	0.425
T3	-0.077	0.371
T4	-0.405	0.503
Hawk meets dove (d)		
T1	2.126***	0.451
T2	4.007***	0.982
T3	-1.352***	0.351
T4	-1.386	0.900
N_1	2268	
N_2	186	
pseudo R^2	0.16	

Notes: The table lists coefficient estimates and cluster robust standard errors from multinomial logistic regression models (*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$; for two-sided tests). The categorical dependent variable is one if the subject chose "stay out," it is two if the subject chose "trust and cooperate," and it is three if the subject chose "trust and defect" in the VG. N_1 denotes the number of cases (decisions) and N_2 denotes the number of clusters (subjects).

Table S3: Logit models of label revelation decisions in T2 and T4

	M1		M2	
	Coef.	SE	Coef.	SE
Const.			1.688***	0.267
T2 (without penalty)				
Dove	1.688***	0.267	ref. cat.	
Hawk	-0.223	0.244	-1.912***	0.361
T4 (with penalty)				
Dove	1.668***	0.310	-0.021	0.409
Hawk	-1.240***	0.262	-2.929***	0.374
N_1	1674		1674	
N_2	186		186	
pseudo R^2	0.24		0.24	

Notes: The table lists coefficient estimates and cluster robust standard errors from logistic regression models (*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$; for two-sided tests). The binary dependent variable is one if the subject chose to reveal their label and is zero otherwise. Model 1 and 2 are equivalent albeit model 1 is saturated and estimated without a constant. N_1 denotes the number of cases (decisions) and N_2 denotes the number of clusters (subjects).

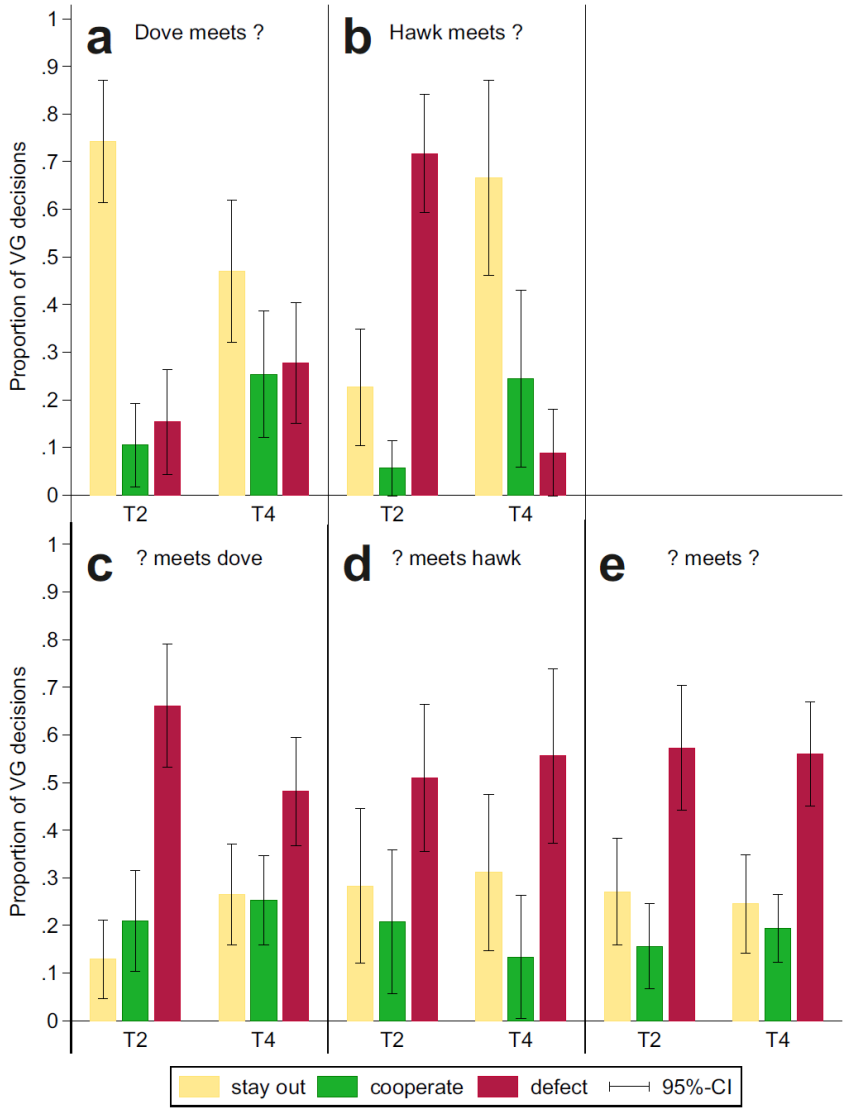


Figure S8: Proportion of subjects' VG decisions across experimental conditions.

Proportions in Figure S8 are shown contingent on who meets whom given one or both subjects did *not* reveal their label. Only in experimental conditions T2 and T4 could subjects choose to reveal their label; in T1 and T3 subjects labels were revealed automatically before an interaction. (a) Doves meet subjects who did not reveal their label. (b) Hawks meet subjects who did not reveal their label. (c) Subjects who did not reveal their label meet doves. (d) Subjects who did not reveal their label meet hawks. (e) Subjects who did not reveal their label meet subjects who did not reveal their label.

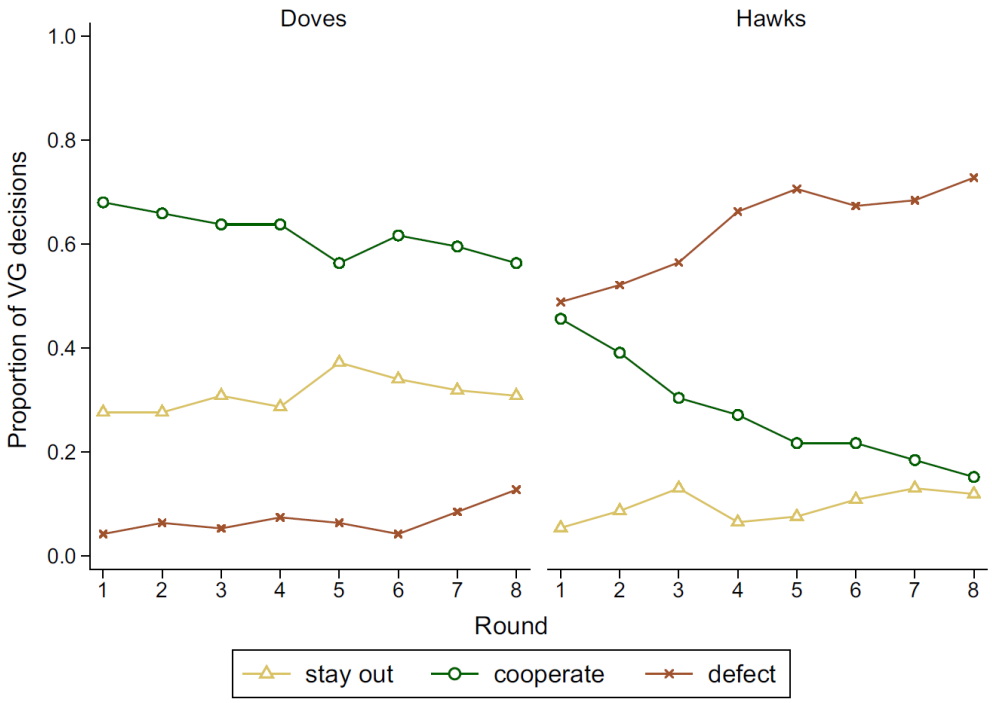


Figure S9: Proportions of VG decisions across time in Part 1 of the experiment.

Proportions in Figure S9 are shown separately for subjects who were later labelled doves or hawks based on their VG choices in T0 (Methods).

Figure S10 contains the same information as figures 3 and 4 in the main part of the paper but disaggregated across time. Proportions are shown contingent on who meets whom given both subjects had their label revealed.

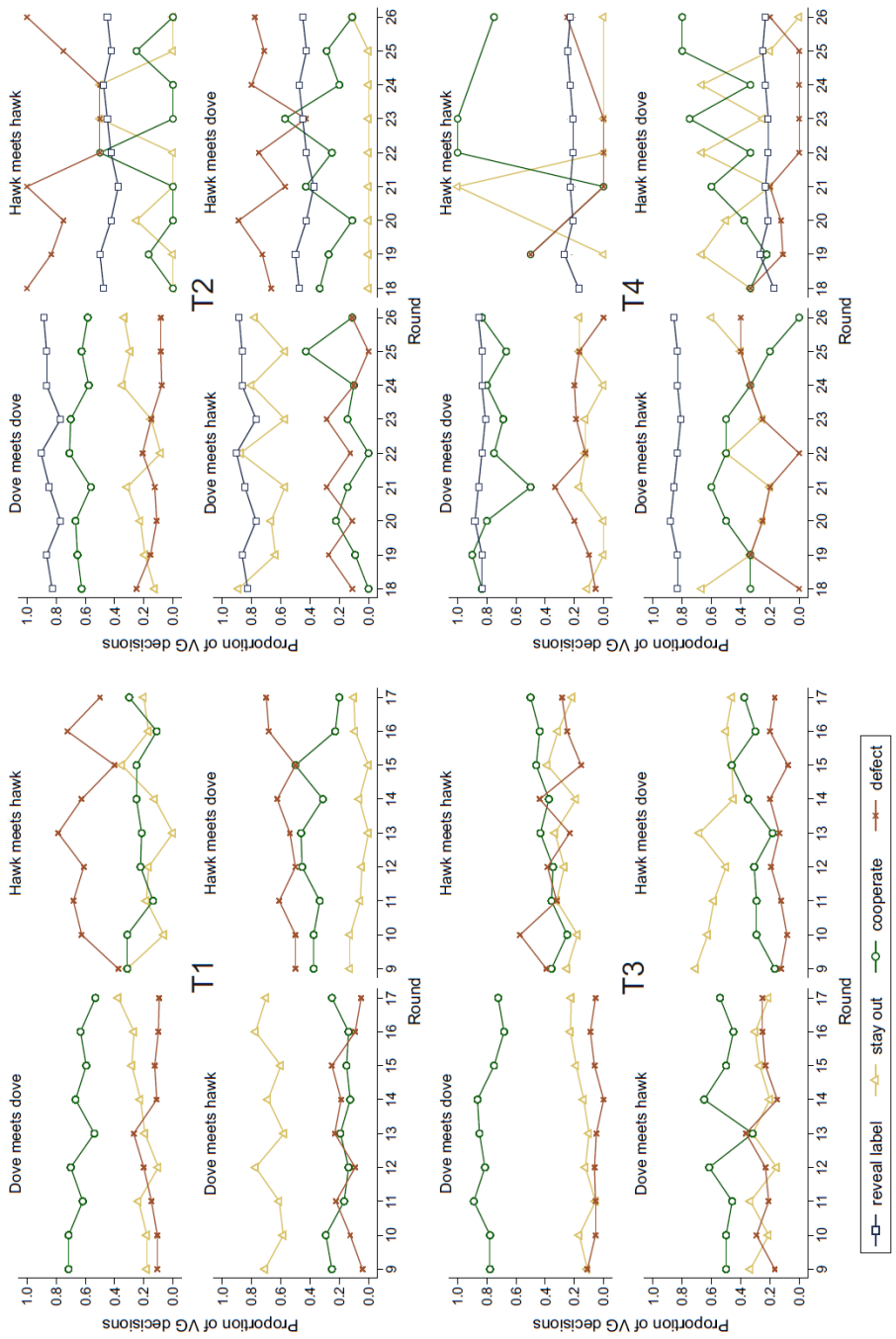


Figure S10: Proportion of subjects' VG decisions across time and experimental conditions.