

Appendix: Sample Instructions

(Instructions for the EF treatment, i.e., single decision with fixed matching. The instructions for the GF treatment (group decision with fixed match) and ER treatment (single decision with rotation) are similar to the EF treatment. The instructions were translated from German into Chinese and used in the experiment in China.)

English translation by Fiona Hayes. German instructions available upon request

[Instructions for firms and civil servants:]

Thank you for participating in this economic experiment

Now please carefully read this simple instruction for the experiment. By participating you can earn money which will be paid to you in cash immediately.

This game is played by two players: a company named “X” and a civil servant. You will be randomly assigned to one of these two roles. You will not know who exactly your co-player is and vice versa.

The company decides first. Considering the decision made by the company, the civil servant makes his decision. After the civil servant’s decision the game ends.

The game is played 10 times. The result of one round does not influence the result of another round. During the 10 rounds, your role does not change. At the beginning of the first round you and your co-player are going to be matched by random draw. Over the course of the 10 games you are always going to meet with the same co-player.

The money you will receive in the experiment is called payoff. Your payoff depends on your decision and the decision of your co-player respectively. In the experiment your payoff is calculated in experimental dollars. After the experiment your experimental dollars are converted into euros and you will receive real euros. The conversion rate is: **40 experimental dollars = 1 euro**.

After playing the game ten times, ten separate payoffs are accounted for you. The ten separate payoffs are summed up. The sum is converted into euros after the experiment and paid to you in cash. In addition, you will receive 3 euros for participating in the experiment, independently from your decisions.

During the experiment, communication among the participants is prohibited. Please signal in case you have any questions.

[Instructions for firms only:]

You are the owner of company “X”. Your initial endowment is 30 experimental dollars. For one month you have been engaged in applying for a public invitation to tender for a motorway construction project. If you receive this public contract, you add 32 experimental dollars to your initial endowment.

Today is the deadline for handing in the application. Your chances of receiving the public contract are good if you send bribe money of the amount t (experimental dollars) to the civil servant in charge of this invitation to tender.

If you do not send any bribe money to the civil servant, the game ends, you receive your initial endowment of 30 experimental dollars and your co-player (the civil servant) does not make a decision and receives his initial endowment of 20 experimental dollars. The public contract is awarded to company "Y", a competitor of your company who is able to construct the motorway in a more efficient way.

If the public contract is awarded to company "Y", the general public benefits of this with an amount of 25 experimental dollars (since the motorway can be constructed in a more efficient way). These 25 experimental dollars are converted into euros after the experiment and are donated to the environmental foundation WWF, further on symbolized by the following icon:



(The confirmation for the donations made to the WWF (www.wwf.de) is available shortly at <http://...> [link expired])

If you choose a bribe t ($t > 0$), the civil servant decides among the following four alternatives, see decision tree:

[Figure shown similar to Figure 1 in the text]

Alternative I: Acceptance, public contract to your company

The civil servant accepts the bribe money and awards the public contract to you. With this, you can attain a profit of 32. In this case your payoff amounts to $30 + 32 - t = 62 - t$ (30: initial endowment; 32: profit from public contract; t : bribe money).

The civil servant has to invest 3 experimental dollars to cover up this prioritization. On the other hand, by accepting the bribe he can attain an added value the amount of $2t$. Therefore, in this case, the payoff for the civil servant amounts to $20 - 3 + 2t = 17 + 2t$ (20: initial endowment; 3: investment; $2t$: added value from the bribe money).

Alternative II: Acceptance, public contract to company "Y"

The civil servant accepts the bribe money. Nevertheless, he awards the public contract to company "Y".

In this case your payoff amounts to $30 - t$ (30: initial endowment; t : bribe money).

The payoff to the civil servant is $20 + 2t$ (20: initial endowment; $2t$: added value from the bribe money)

Alternative III: Refusal and return, public contract to company "Y"

The civil servant sends the bribe money back to you and awards the contract to company "Y". In this case your payoff is 30 (30: initial endowment).

The payoff for the civil servant is 20 (20: initial endowment).

Alternative IV: Refusal and report to the police, public contract to company "Y"

The civil servant hands in the bribe money at the Public Prosecutor's Office; this effort costs him 2 experimental dollars. The public contract is awarded to company "Y".


Therefore, in this case, the payoff to the civil servant is $20 - 2 = 18$ (20: initial endowment; 2: expenses).

Your company has to pay a fine of 8 experimental dollars. Hence, your payoff amounts to $30 - t - 8 = 22 - t$ (30: initial endowment; t: bribe money; 8: fine).

In the case of alternative IV, the general public is informed more accurately by the report to the police and gains another 5 experimental dollars which means that 30 experimental dollars are donated to the WWF in total.

All possible payoffs for you are listed in the following table (unit of payoffs: experimental dollars):

Alternative	t=	2	4	6	8
<u>Alternative 1: Annehmen, Auftrag an Firma „X“ (Auszahlung=30-t+32=62-t)</u>		60	58	56	54
<u>Alternative 2: Annehmen, Auftrag an Firma „Y“ (Auszahlung=30-t)</u>		28	26	24	22
<u>Alternative 3: Zurückschicken, Auftrag an Firma „Y“ (Auszahlung=30)</u>		30	30	30	30
<u>Alternative 4: Anzeigen, Auftrag an Firma „Y“ (Auszahlung=30-t-8=22-t)</u>		20	18	16	14



 0
 25
 25
 30

If you do not send any bribe money to the civil servant (i.e. $t=0$), your payoff always amounts to 30. The public contract is awarded to company "Y".

If the contract is awarded to company "Y" (in the case of $t=0$; or if the civil servant chooses alternative II, III or IV), the environmental foundation WWF receives a donation.

Whether a donation is given to the WWF (and if yes, how much) depends on your decision and on the decision of the civil servant in each round respectively. After ten games all donations are summed up. The sum is converted into euro after the experiment and is donated to the environmental foundation WWF. (The conversion rate for the donations is also 40 experimental dollars = 1 euro).

In case you are company "X" in the game, you need to make the following decision online:

Will you send bribe money to the civil servant? And if yes, how much are you going to choose as a bribe?

- no, $t = 0$
- yes, $t = 2$
- yes, $t = 4$

yes, $t = 6$

yes, $t = 8$

After the decision of the civil servant, you are going to be informed about the following:

- The decision of the civil servant
- Your payoff in the current round
- The payoff to your co-player (the civil servant) in the current round
- The donation to the WWF in the current round

After having played the game ten times, you are going to be informed about the following:

- The sum of your payoffs in all 10 rounds
- The donations to the WWF in all 10 rounds

[Instructions for civil servants only:]

You are the civil servant who is responsible for the invitation to tender for a motorway construction project. You have an initial endowment of 20 experimental dollars. Today is the deadline for handing in the applications. All applicants are going to send their applications to you. Company "X" is an applicant and can send a bribe to you, together with the application documents in order to increase the probability of being awarded the public contract.

If company "X" does not send any bribe money, the game ends. You award the public contract to company "Y" which is the competitor of company "X" and is able to build the motorway in a more efficient way.

In this case you do not make a decision and you receive your initial endowment of 20 experimental dollars and company "X" receives its initial endowment of 30 experimental dollars.

In case the public contract is awarded to company "Y", the general public benefits from this in the amount of 25 experimental dollars (since company "Y" builds the motorway in a more efficient way). These 25 experimental dollars are converted into euros after the experiment and donated to the environmental foundation WWF, further on symbolized by the following icon:



(The confirmation for the donations made to the WWF (www.wwf.de) is available shortly at <http://> [link expired])

If company "X" chooses to send you a bribe t ($t > 0$), you decide among the following four alternatives, see decision tree:

[Figure shown similar to Figure 1 in the text]

Alternative I: Acceptance, public contract to company "X"

You accept the bribe money and award the public contract to company "X". By accepting the bribe money, you can attain an added value the amount of $2t$. But you need to invest 3 experimental dollars to cover up the prioritization of X. Therefore, in this case, your payoff amounts to $20 - 3 + 2t = 17 + 2t$ (20: initial endowment; 3: expenses; $2t$: added value from bribe money).

Company "X" can attain a profit of 32 from this contract. In this case, its payoff amounts to $30 + 32 - t = 62 - t$ (30: initial endowment; 32: profit from contract; t : bribe money).

Alternative II: Acceptance, public contract to company "Y"

You accept the bribe money, but award the public contract to company "Y".

In this case your payoff amounts to $20 + 2t$ (20: initial endowment; $2t$: added value from bribe money).

The payoff to company "X" is $30 - t$ (30: initial endowment; t : bribe money)

Alternative III: Refusal and return, public contract to company "Y"

You send the bribe money back to company "X" and award the contract to company "Y".

In this case your payoff is 20 (20: initial endowment).

The payoff for company "X" is 30 (30: initial endowment).

Alternative IV: Refusal and report to the police, public contract to company "Y"

You hand in the bribe money at the Public Prosecutor's Office; this effort costs you 2 experimental dollars. The public contract is awarded to company "Y".

Therefore, in this case, your payoff is $20 - 2 = 18$ (20: initial endowment; 2: expenses).

Company "X" has to pay a fine of 8 experimental dollars. Hence, its payoff amounts to $30 - t - 8 = 22 - t$ (30: initial endowment; t : bribe money; 8: fine).

In the case of alternative IV, the general public is informed more accurately by the report to the police and gains another 5 experimental dollars which means that 30 experimental dollars are donated to the WWF in total.

All possible payoffs for you are listed in the following table (unit of payoffs: experimental dollars):

Alternative	t=	2	4	6	8
<u>Alternative 1: Annehmen, Auftrag an Firma „X“ (Auszahlung=20+2t-3)</u>		21	25	29	33
<u>Alternative 2: Annehmen, Auftrag an Firma „Y“ (Auszahlung=20+2t)</u>		24	28	32	36
<u>Alternative 3: Zurückschicken, Auftrag an Firma „Y“ (Auszahlung=20)</u>		20	20	20	20
<u>Alternative 4: Anzeigen, Auftrag an Firma „Y“ (Auszahlung=20-2)</u>		18	18	18	18



0

25

25

30

If company “X” has not sent any bribe money to you, your payoff is always 20. You will award the public contract to company “Y”.

If the contract is awarded to company “Y” (in the case of $t=0$ or if you choose alternatives II, III or IV), the environmental foundation WWF receives a donation.

Whether a donation is given to the WWF (and if yes, how much) depends on your decision and on the decision of company “X” in each round respectively. After ten games all donations are summed up. The sum is converted into euro after the experiment and is donated to the environmental foundation WWF. (The conversion rate for the donations is also 40 experimental dollars = 1 euro).

After the decision has been made by company “X”, you are informed about the amount of the bribe money:

- If you have not received any bribe money ($t=0$), you do not make a decision.
- If you receive a t ($t>0$), please choose one of the four alternatives online.

In each round you are informed about the following:

- your payoff in the current round
- the payoff to your co-player (company “X”) in the current round
- the donation to the WWF in the current round

After having played the game ten times, you are going to be informed about the following:

- the sum of your payoffs in all 10 rounds
- the donations to the WWF in all 10 rounds