

Material for Corruption Game

Source: Köbis, N. C., Van Prooijen, J-W., Righetti, F. & Van Lange, P. A. M. (in press) - The Road to Bribery and Corruption: Slippery Slope or Steep Cliff? *Psychological Science*

Programming notes

The experiment was programmed with Qualtrics (see <https://www.Qualtrics.com>)

The entire code for the experiment can be obtained upon request from the corresponding author (n.c.kobis@vu.nl).

The following pages contain the information provided to the participants, in the format it was presented. We used the Qualtrics Minimal Blue Template which displays the text in Georgia, 130% font, dark text color (#43464D) on a white (#FFFFFF) background.

For questions in the multiple choice format, the order of the answers were randomized so as to avoid effects attributable to the ranking order of the answer choices.

The colors of the headers from screen 18 onward indicate to which of the four conditions the text refers to, in the following way:

Red = fair bidder (no choice to bribe)

Blue = potentially corrupt bidder (abrupt choice whether to bribe)

Orange = potentially corrupt bidder (gradual choice whether to bribe)

Green = official (recipient of bribes; only hypothetically answered whether s/he would have accepted bribe)

We added additional notes to the text to explain the display logic and facilitate reprogramming, these notes are indicated in Calibri, italics.

If further questions about the material exist, please contact the corresponding author (n.c.kobis@vu.nl)

Screen 1 – Instructions

You will be playing an auction game consisting of three players. You will be randomly assigned to one of the three players' roles. You will keep this role throughout the entire game.

All decisions that you make in the game will be matched to the decisions of two randomly chosen real existing participants, who take the role of the other two players in the game.

This matching will occur briefly after you have finished the study.

Bear in mind that your decisions in the game have real consequences: they determine the final payoff in Amazon Gift Cards for you and your fellow players. We will provide you with a more detailed explanation about how your behavior in the game translates to Amazon Gift Cards at a later stage of the game before you have to make any decisions.

First, the rules of the game will be explained to you and several test questions will be asked.

Screen 2 – Instructions

There are three roles in the game:

Two competing construction companies, Construx and Roley, and a Minister of Public Affairs.

Both construction companies are trying to get tender for a big construction contract which is advertised and allocated by the Minister of Public Affairs.

Screen – Instructions

The rules of the auction:

Both construction companies receive a total budget of \$400.000 game dollar for the entire auction. This auction for the bridge building contracts consists of four rounds.

Each of the four contracts are **worth \$120.000 and are awarded in four separate and independent bidding rounds.**

Each round, the two companies make a secret bid to the Minister of Public Affairs.

The Minister of Public Affairs awards the highest bidder of each round with the contract worth \$120.000.

If both players offer the same amount in the bid, then the Minister of Public Affairs splits the contract evenly between both companies, each company thus receives \$60.000.

Screen 4 – Instructions

Money that is not allocated in the bid will be kept by the bidder. Each bidding company has six options, they can bid one of the following amounts:

\$0

\$10.000

\$20.000

\$30.000

\$40.000

\$50.000

Screen 5 – Instructions

On the next pages you can find some examples to clarify the structure of the game. Please familiarize yourself with the rules of the game, you will be asked some test questions about it.

Screen 6 – Example 1

1. Example:

IF Construx bids \$30.000 and Roley bids \$20.000, THEN the Minister of Public Affairs allocates the contract worth \$120.000 to Construx.

The effective pay-offs for that round are:

Construx: +\$90.000 (\$120.000 win - \$30.000 bid)

Roley: -\$20.000

Screen 7 – Example 2

2. Example:

IF Construx bids \$50.000 and Roley bids \$50.000, THEN the Minister of Public Affairs splits the contract worth \$120.000 evenly among both bidders. Each bidder therefore receives \$60.000.

The effective payoffs for this round are:

Construx: +\$10.000 (\$60.000 win - \$50.000 bid)

Roley: +\$10.000 (\$60.000 win - \$50.000 bid)

Screen 8 – Example 3

3. Example:

IF Construx bids \$40.000 and Roley bids \$50.000, THEN the Minister of Public Affairs allocates the prize of \$120.000 to Bidder B.

The effective pay-offs for this round are:

Construx: -\$40.000

Roley: +\$70.000 (\$120.000 win - \$50.000 bid)

Screen 9 – Test question 1

In order to check if you understood the task here are some test questions:

IF Construx bids \$50.000 and Roley bids \$40.000, THEN who receives the contract worth \$120.000 from the Minister of Public Affairs?

- ☐ Roley receives the prize of \$120.000. The effective payoff for Roley is +\$80.000
- ☐ Construx receives the prize of \$120.000. The effective payoff for Construx is +\$70.000
- ☐ Both bidders receive half of the prize 60.000. The effective payoffs
Construx: +\$10.000; Roley: +\$20.000

Screen 10 – Answer to test question 1

If the participant chose the first or third answer, the following message was displayed:

“This answer is wrong.

IF Construx bids \$50.000 and Roley bids \$40.000, THEN Construx receives the contract worth \$120.000 from the Minister of Public Affairs.

The effective gain for Construx in that round is +\$70.000 while Roley loses the money put in the bid (-\$40.000)”

If the participant chose the second answer, the following message was displayed:

“This answer is right.”

Screen 11 – Test question 2

IF Construx bids \$20.000 and Roley bids \$40.000, THEN who receives the contract worth \$120.000 from the Minister of Public Affairs?

- ☐ Roley receives the prize of \$120.000. The effective payoff for Roley is +\$80.000
- ☐ Construx receives the prize of \$120.000. The effective payoff for Construx is +\$100.000
- ☐ Both bidders receive half of the prize (\$60.000). The effective payoffs Construx: +\$40.000; Roley: +\$20.000

Screen 12 – Answer to test question2

If the participant chose the second or third answer, the following message was displayed:

“This answer is wrong.

IF Construx bids \$20.000 and Roley bids \$40.000, THEN Roley receives the contract worth \$120.000 from the Minister of Public Affairs

The effective gain for Roley in that round is +\$80.000 while Construx loses the money put in the bid (-\$20.000)”

If the participant chose the first answer, the following message was displayed:

“This answer is right.”

Screen 13 – Test question 3

IF Construx and Roley both bid \$50.000, THEN who receives the contract from the Minister of Public Affairs?

- ☐ Roley receives the prize of \$120.000. The effective payoff for Roley is +\$70.000
- ☐ Construx receives the prize of \$120.000. The effective payoff for Construx is +\$70.000
- ☐ Both bidders receive half of the prize (\$60.000). The effective payoffs Construx: +\$10.000; Roley: +\$10.000

Screen 14 – Answer to test question 3

If the participant chose the first or second answer, the following message was displayed:

“This answer is wrong.

IF Construx and Roley both bid \$50.000, THEN both companies share the contract. Each company receives \$60.000, the effective win for both of them is \$10.000”

If the participant chose the third answer, the following message was displayed:

“This answer is right.”

Screen 15 – Test question 4

How many rounds of bidding are there?

☐ 3

☐ 2

☐ 4

Screen 16 – Answer to test question 4

If the participant chose the first or second answer, the following message was displayed:

“The answer is wrong.
There are four rounds of bidding in this game.”

If the participant chose the third answer, the following message was displayed:

“This answer is right.”

Screen 17 – Instructions

The actual game starts on the next page.
You will be randomly assigned to one of the three player's roles.

Please wait...

Screen 18 – Instructions Fair Bidder

You have been randomly chosen to take the role of **Construx**.

On top of the participation fee you can win extra Amazon Gift Card Vouchers depending on how you decide in the game. That means the size of your Amazon Gift Card depends on your final budget in the game. Below you can see an overview of how much you earn depending on your final budget.

As a starting budget you receive \$400.000

The table on the following page was presented together with the text above on one screen.

Screen 18 (cont.) – Instructions Fair Bidder

Final budget in game dollar	Amazon Gift Card Value
\$400.000	\$0
\$450.000	\$0.50
\$500.000	\$1.00
\$550.000	\$1.50
\$600.000	\$2.00
\$650.000	\$2.50
\$700.000	\$3.00
\$750.000	\$3.50
\$800.000	\$4.00
\$850.000	\$4.50
\$900.000	\$5.00
\$950.000	\$5.50
>\$950.000	\$6.00

Screen 19 – Bidding, Rd1: Fair Bidder

Round 1

How much do you bid in the first round?

- ☐ \$0
- ☐ \$10.000
- ☐ \$20.000
- ☐ \$30.000
- ☐ \$40.000
- ☐ \$50.000

Screen 20 – Bidding, Rd2: Fair Bidder

Round 2

How much do you bid in the second round?

- ☐ \$0
- ☐ \$10.000
- ☐ \$20.000
- ☐ \$30.000
- ☐ \$40.000
- ☐ \$50.000

Screen 21 – Bidding, Rd3: Fair Bidder

Round 3

How much do you bid in the third round?

- ☐ \$0
- ☐ \$10.000
- ☐ \$20.000
- ☐ \$30.000
- ☐ \$40.000
- ☐ \$50.000

Screen 22 – Bidding, Rd4: Fair Bidder

Round 4

How much do you bid in the fourth round?

- ☐ \$0
- ☐ \$10.000
- ☐ \$20.000
- ☐ \$30.000
- ☐ \$40.000
- ☐ \$50.000

Screen 18 – Instructions Corrupt Bidder (Abrupt)

You have been randomly chosen to take the role of **Roley**.

On top of the participation fee you can win extra Amazon Gift Card Vouchers depending on how you decide in the game. That means the size of your Amazon Gift Card depends on your final budget in the game. Below you can see an overview of how much you earn depending on your final budget.

As a starting budget you receive \$400.000

The table on the following page was presented together with the text above on one screen.

Screen 18 (cont.) – Instructions Corrupt Bidder (Abrupt)

Final budget in game dollar	Amazon Gift Card Value
\$400.000	\$0
\$450.000	\$0.50
\$500.000	\$1.00
\$550.000	\$1.50
\$600.000	\$2.00
\$650.000	\$2.50
\$700.000	\$3.00
\$750.000	\$3.50
\$800.000	\$4.00
\$850.000	\$4.50
\$900.000	\$5.00
\$950.000	\$5.50
>\$950.000	\$6.00

Screen 19 – Instructions Corrupt Bidder (Abrupt)

You have the opportunity to **directly transfer** money to the Minister of Public Affairs.

Construx, who represents a real person in this study, does not have that option and also does not know that you have this option.

The amount that you can transfer is \$40.000 (worth \$4.00 of Amazon Gift Voucher to the Minister of Public Affairs)

Transferring this amount would guarantee that you win the bidding in all rounds independent on how much you bid.

Screen 20 – Instructions Corrupt Bidder (Abrupt)

Now you have to decide whether you want to directly transfer \$40.000 to the Official Player which would ensure that you receive the contract worth \$120.000 in each of the four rounds independent on how much you bid.

Do you want to directly transfer \$40.000 to the official player?

- ☐ No. Costs = \$0; prize is given to the highest bidder
- ☐ Yes. Costs = \$40.000; prize is given to you in 100% of the bidding rounds

Screen 21 – Bidding, Rd1: Corrupt Bidder (Abrupt)

Round 1

How much do you bid in the first round?

- ☐ \$0
- ☐ \$10.000
- ☐ \$20.000
- ☐ \$30.000
- ☐ \$40.000
- ☐ \$50.000

Screen 22 – Bidding, Rd2: Corrupt Bidder (Abrupt)

Round 2

How much do you bid in the second round?

- ☐ \$0
- ☐ \$10.000
- ☐ \$20.000
- ☐ \$30.000
- ☐ \$40.000
- ☐ \$50.000

Screen 23 – Bidding, Rd3: Corrupt Bidder (Abrupt)

Round 3

How much do you bid in the third round?

- ☐ \$0
- ☐ \$10.000
- ☐ \$20.000
- ☐ \$30.000
- ☐ \$40.000
- ☐ \$50.000

Screen 24 – Bidding, Rd4: Corrupt Bidder (Abrupt)

Round 4

How much do you bid in the fourth round?

- ☐ \$0
- ☐ \$10.000
- ☐ \$20.000
- ☐ \$30.000
- ☐ \$40.000
- ☐ \$50.000

Screen 18 – Instructions Corrupt Bidder (Gradual)

You have been randomly chosen to take the role of **Roley**.

On top of the participation fee you can win extra Amazon Gift Card Vouchers depending on how you decide in the game. That means the size of your Amazon Gift Card depends on your final budget in the game. Below you can see an overview of how much you earn depending on your final budget.

As a starting budget you receive \$400.000

The table on the following page was presented together with the text above on one screen.

Screen 18 (cont.) – Instructions Corrupt Bidder (Gradual)

Final budget in game dollar	Amazon Gift Card Value
\$400.000	\$0
\$450.000	\$0.50
\$500.000	\$1.00
\$550.000	\$1.50
\$600.000	\$2.00
\$650.000	\$2.50
\$700.000	\$3.00
\$750.000	\$3.50
\$800.000	\$4.00
\$850.000	\$4.50
\$900.000	\$5.00
\$950.000	\$5.50
>\$950.000	\$6.00

Screen 19 – Instructions Corrupt Bidder (Gradual)

You have the opportunity to **directly transfer** money to the Minister of Public Affairs.

Construx, who represents a real participant in this study, does not have that option and does not know that you have that option.

The amount that you can transfer in the first instance is \$10.000 (worth \$1.00 of Amazon Gift Voucher to the Minister of Public Affairs)

Transferring this amount would guarantee that you will **win the contract in the first of the four (25%) rounds independent on how much you bid in the first round.**

If you transfer \$10.000 to the Minister of Public Affairs, you will later have the chance to transfer another \$30.000 (worth \$3.00). This additional transfer would ensure the advantage in the remaining three bidding rounds. You would then win the bidding for the contract in all rounds (100%) independent on how much you bid.

Screen 20 – DVa, Corrupt Bidder (Gradual)

Now you have to decide whether you want to send \$10.000 directly to the Minister of Public Affairs. This transfer would ensure that you receive the contract worth \$120.000 in the first of the four rounds independent on how much you actually bid.

You will later have the chance to transfer another \$30.000 (worth \$3.00 of Amazon Gift Voucher to the Minister of Public Affairs)

Do you want to directly transfer \$10.000 in the first instance to the Minister of Public Affairs?

- ☐ Yes. Costs = \$10.000; prize is given to your company (Roley) in the first bidding rounds; you can later transfer another 30.000\$ to ensure the advantage in the remaining 75% of the rounds.
- ☐ No. Costs = \$0; prize is given to the highest bidding company

Screen 21 – DVb, Corrupt Bidder (Gradual)

Only when participants opted to send the \$10,000 in the previous instance, the following text would be displayed:

“Now you can decide whether you want to send an additional amount of \$30.000 directly to the Official Player. This transfer would ensure that you receive the prize in all rounds independent on how much you bid.

Do you want to transfer additional \$30.000 to the Minister of Public Affairs?

- ☐ Yes. costs = \$30.000; you receive the contract worth 120.000 in 100% (4/4) of the bidding rounds
- ☐ No. costs = \$0; construction job is given to you in 25% (1/4) of the bidding rounds. The remaining 75% (3/4) of the rounds it is given to the highest bidder”

Screen 22 – Bidding, Rd1: Corrupt Bidder (Gradual)

Round 1

How much do you bid in the first round?

- ☐ \$0
- ☐ \$10.000
- ☐ \$20.000
- ☐ \$30.000
- ☐ \$40.000
- ☐ \$50.000

Screen 23 – Bidding, Rd2: Corrupt Bidder (Gradual)

Round 2

How much do you bid in the second round?

- ☐ \$0
- ☐ \$10.000
- ☐ \$20.000
- ☐ \$30.000
- ☐ \$40.000
- ☐ \$50.000

Screen 24 – Bidding, Rd3: Corrupt Bidder (Gradual)

Round 3

How much do you bid in the third round?

- ☐ \$0
- ☐ \$10.000
- ☐ \$20.000
- ☐ \$30.000
- ☐ \$40.000
- ☐ \$50.000

Screen 25 – Bidding, Rd4: Corrupt Bidder (Gradual)

Round 4

How much do you bid in the fourth round?

- ☐ \$0
- ☐ \$10.000
- ☐ \$20.000
- ☐ \$30.000
- ☐ \$40.000
- ☐ \$50.000

Instruction text Official (Minister of Public Affairs)

You have been randomly chosen to take the role of the **Minister of Public Affairs**.

It is your task to allocate the prize to the highest bidding company.

When both players bid the same amount you need to split the prize among them.

Instruction text Official (Minister of Public Affairs)

As already mentioned you will be randomly paired with two participants that represent the competing companies: Construx and Roley.

Direct transfer: Out of the two bidding players, **ONLY** Roley has the opportunity to directly transfer money to you.

Construx does not know that Roley can transfer money directly to you.

The money directly transferred to you is yours to keep and will be translated into Amazon Gift Vouchers with a rate of \$10.000 game dollar = \$1 cents Amazon Gift Cards.

Instruction text Official (Minister of Public Affairs)

Roley can directly transfer money to you, that amount can either be:

- NOTHING or
- \$10.000 or
- \$40.000

IF Roley transfers NOTHING to you THEN you have to allocate the construction contract worth \$120.000 to the highest bidder in each round

IF Roley transfers \$10.000 to you THEN you have to allocate the construction contract worth 120.000\$ to Roley in the first round independent on the actual bidding process.

If Roley transfers \$40.000 to you THEN you have to allocate the construction contract worth 120.000\$ to Roely in all rounds independent on the actual bidding process.

Instruction text Official (Minister of Public Affairs)

If Roley does not transfer money to you the bidding of the four rounds will be as follows:

Round 1-4

Construx bids more than Roley

THEREFORE you allocate the construction contract worth \$120.000 to Construx

Roley bids more than Construx

THEREFORE you allocate the construction contract worth \$120.000 to Roley

Construx and Roley bid the same amount

THEREFORE you split the construction contract worth \$120.000 evenly among the two

Instruction text Official (Minister of Public Affairs)

If Roley transfers \$10.000 to you the bidding results of the four rounds will be as follows:

In the first of the four Bidding Rounds:

Bidder A bids more than Bidder B

BUT you allocate the prize of \$120.000 to Bidder B due to the direct transfer

Bidder B bids more than Bidder A

AND you allocate the prize of \$120.000 to Bidder B

Bidder A and Bidder B bid the same amount

BUT you allocate the prize of \$120.000 to Bidder B due to the direct transfer

In the remaining three of the four Bidding Rounds:

Bidder A bids more than Bidder B

THEREFORE you allocate the prize of \$120.000 to Bidder A

Bidder B bids more than Bidder A

THEREFORE you allocate the prize of \$120.000 to Bidder B

Bidder A and Bidder B bid the same amount

THEREFORE you split the prize of \$120.000 evenly among the two

Bidder A and Bidder B both receive \$60.000

Instruction text Official (Minister of Public Affairs)

If Roley transfers \$40.000 to you the bidding results of the four rounds will be as follows:

Round 1-4

Construx bids more than Roley

BUT you allocate the prize of \$120.000 to Roley

Roley bids more than Construx

THEREFORE you allocate the prize of \$120.000 to Roley

Construx and Roley bid the same amount

BUT you allocate the prize of \$120.000 to Roley

Instruction text Official (Minister of Public Affairs)

If you had a choice whether to accept the direct transfer, how would you decide?

- ☐ accept the transfer
- ☐ reject the transfer

Exit questions

The actual game is over now. Your final budget (and your Amazon Gift Card size) will be announced to you shortly after you have finished the entire study. Please answer the following questions.

Exit questions ensued