Supplemental Material / Online Appendix

Contract Breach with Overconfident Expectations: Experimental Evidence on
Reference-Dependent Preferences

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Contents

A   Selection into contracts

As described in Section 4 in the main paper, we allow for voluntary contract agreements. To check if selection biases our estimates, we do the following. First, we compare potential selection between the control and the anchor group. Second, we test if the sample who agreed on contracts differs from the whole sample, that is, all people that participated in our study, including those who did not agree on a contract.

Table I presents a comparison of contract offers and acceptances by experimental groups. The *share of offered contracts* corresponds to the share of sellers who offered a contract to the buyer. In total, 231 sellers offered and only 11 sellers did not offer a contract (6 in the control and 5 in the anchor treatment). The *relative number offered* is the average share of the sellers' estimated total number of produced goods that were offered to the buyers. The *share of accepted contracts* is the share of sellers' offers that were accepted by the buyers. We use a two-sided t-test to test for differences in the average relative offers and Pearson's chi-squared test for the shares of contracts offered and accepted. The p-values support the conclusion that the contract-related variables are similar across the two experimental groups.

TABLE I: Comparison of contract offers and acceptances by experimental groups

	control	anchor	p-value	N
share of offered contracts (%)	95.1	95.8	0.779	242
relative number offered (%) (full sample)	61.7	63.6	0.476	231
relative number offered (%) (data used)	61.6	65.3	0.232	172
share of accepted contracts (%)	81.9	81.7	0.975	186

Next, we check if there is selection into the sample by our main independent variable *Under-/overestimation* and other characteristics including, again, the anchor treatment, as well as *Location* (an indicator for the research site) and *Female* (an indicator which is 1 if the participant identifies as a woman and 0 otherwise). In Table II, we present results from a logistic regressions with robust standard errors and inclusion in the sample as the dependent variable. The dependent variable *Sample* is 1 when included in the sample (N=172) and 0 otherwise (N=70). We present odd ratios in this table. All estimates of the independent variables are insignificant. The regressions confirm that selection bias is, if at all, a minimal concern.

TABLE II: Determinants of inclusion in the sample

	Sample		
	(1)	(2)	(3)
Under-/overestimation	-0.025	-0.018	-0.021
	(0.031)	(0.033)	(0.034)
Anchor		-0.302	-0.239
		(0.301)	(0.301)
Location			0.422
			(0.306)
Female			0.228
			(0.340)
Constant	0.972***	1.107***	0.873***
	(0.174)	(0.215)	(0.247)
Observations	242	242	242
Pseudo R^2	0.003	0.006	0.017

Robust standard errors in parentheses
*** $p<0.01$, ** $p<0.05$, * $p<0.1$

B Additional tables

TABLE III: Observations in contract stages and experimental groups by estimation type

	correct estimate		underconfident		overconfident		Total	
Contracting								
total sellers	17	(7.02%)	59	(24.38%)	166	(68.60%)	242	(100%)
offers (seller)	16	(6.93%)	56	(24.24%)	159	(68.83%)	231	(100%)
acceptances (buyer)	16	(8.60%)	45	(24.19%)	125	(67.20%)	186	(100%)
data used in analysis[1]	14	(8.14%)	42	(24.42%)	116	(67.44%)	172	(100%)
Experimental groups								
control	11	(64.71%)	42	(71.19%)	68	(41.72%)	121	(50.63%)
control (data used)[1]	10	(71.43%)	32	(76.19%)	49	(42.24%)	91	(52.91%)
anchor	6	(35.29%)	17	(28.81%)	95	(58.28%)	118	(49.37%)
anchor (data used)[1]	4	(28.57%)	10	(23.81%)	67	(57.76%)	81	(47.09%)

[1] Our data set in the analysis comprises 172 observations in total (91 in the control and 81 in the anchor condition). Although we collected data from 186 sellers who accepted contracts, we had to drop 14 observations due to lost data from power outages in the field.

TABLE IV: 1st stage results for Table 3 in the main paper

| | Under-/overestimation | |
	(2)	(4)
Anchor	2.681***	2.873***
	(0.662)	(0.727)
Shock	0.040	0.667
	(0.683)	(0.709)
Performance	-0.373***	-0.432***
	(0.087)	(0.093)
Constant	5.732	4.620
	(1.354)	(5.307)
Observations	172	172
R^2	0.181	0.254
Covariates[a]	No	Yes

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Notes. Anchor is a dummy variable (1=anchor treatment), all other variables are described in the notes of Table 3 in the main paper.

[a]Covariates are described in the notes of Table 2 in the main paper.

TABLE V: Robustness test of Table 3 in the main paper excluding the performance variable

| | (1) | (2) | (3) | (4) |
	OLS	IV	OLS	IV
Over-/underestimation	0.244***	0.338**	0.255***	0.312**
	(0.050)	(0.147)	(0.050)	(0.127)
Shock	0.425	0.406	0.525	0.520
	(0.455)	(0.455)	(0.470)	(0.455)
Constant	0.737**	0.505	-1.084	-1.243
	(0.363)	(0.511)	(2.885)	(2.893)
Observations	172	172	172	172
Adjusted R-squared	0.128	0.108	0.172	0.165
Covariates	No	No	Yes	Yes

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Notes. This table presents estimates of OLS regressions in models (1) and (3). Models (2) and (4) present estimates of IV regressions using the anchor treatment as an instrument for under-/overestimation. Coefficients are estimated without (models (1) and (2)) and with covariates (models (3) and (4)). *Under-/overestimation* reflects sellers' performance misperception and ranges from -12 to 19 (negative numbers indicate underestimation, positive numbers overestimation), and *Shock* is a dummy variable (1=shock treatment).

[a]Covariates are described in the notes of Table 2 in the main paper.

TABLE VI: 1st stage results for Table V

	Under-/overestimation	
	(2)	(4)
Anchor	3.104***	3.326***
	(0.683)	(0.670)
Shock	0.327	0.197
	(0.698)	(0.702)
Constant	0.949	-0.563
	(0.660)	(5.811)
Observations	172	172
R^2	0.109	0.172
Covariates[a]	No	Yes

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Notes. Anchor is a dummy variable (1=anchor treatment), all other variables are described in the notes of Table V.

[a]Covariates are described in the notes of Table 2 in the main paper.

TABLE VII: Robustness test of Table 3 in the main paper including a dummy variable for fulfillable contracts

	(1) OLS	(2) IV	(3) OLS	(4) IV
Over-/underestimation	0.289***	0.516*	0.300***	0.427**
	(0.055)	(0.275)	(0.057)	(0.213)
Shock	0.561	0.539	0.603	0.601
	(0.455)	(0.467)	(0.474)	(0.458)
Performance	0.200***	0.236***	0.161**	0.189**
	(0.065)	(0.072)	(0.076)	(0.078)
Fulfillable contract	-0.027	1.214	0.131	0.822
	(0.628)	(1.692)	(0.623)	(1.333)
Constant	-1.807**	-3.757	-2.984	-3.722
	(0.856)	(2.383)	(3.003)	(3.282)
Observations	172	172	172	172
Adjusted R-squared	0.160	0.079	0.188	0.163
Covariates	No	No	Yes	Yes

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Notes. This table presents estimates of OLS regressions in models (1) and (3). Models (2) and (4) present estimates of IV regressions using the anchor treatment as an instrument for under-/overestimation. Coefficients are estimated without (models (1) and (2)) and with covariates (models (3) and (4)). *Under-/overestimation* reflects sellers' performance misperception and ranges from -12 to 19 (negative numbers indicate underestimation, positive numbers overestimation), *Shock* is a dummy variable (1=shock treatment), sellers' *performance* in the real-effort task is a continuous variable ranging from 0 to 25, and *Fulfillable contract* is a dummy variable (1=contract fulfillable).

[a]Covariates are described in the notes of Table 2 in the main paper.

TABLE VIII: 1st stage results for Table VII

	Under-/overestimation	
	(2)	(4)
Anchor	1.773***	2.036***
	(0.603)	(0.605)
Shock	0.176	0.082
	(0.606)	(0.560)
Performance	-0.141*	0.203**
	(0.081)	(0.085)
Fulfillable contract	-4.931***	-4.839***
	(0.653)	(0.664)
Constant	7.121***	3.485
	(1.035)	(4.927)
Observations	172	172
R^2	0.180	0.255
Covariates[a]	No	Yes

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Notes. Anchor is a dummy variable (1=anchor treatment), all other variables are described in the notes of Table VII. *Fulfillable contract* is a dummy variable (1=contract fulfillable).

[a]Covariates are described in the notes of Table 2 in the main paper.

TABLE IX: Robustness test of Table 4 in the main paper including a dummy variable for fulfillable contracts

| | Contract Breach | | | | | |
	(1)	(2)	(3)	(4)	(5)	(6)
Overconf. Dummy	0.713***	0.623**	-0.424	0.713***	0.639**	-0.336
	(0.255)	(0.286)	(0.491)	(0.255)	(0.284)	(0.545)
Loss Dummy		0.111	-0.978**			
		(0.264)	(0.497)			
Overconf. Dummy × Loss Dummy			1.532***			
			(0.580)			
Loss aversion						-0.180*
						(0.107)
Overconf. Dummy × Loss Aversion						0.259**
						(0.126)
Fulfillable Contract	-0.144	0.452	0.445	-0.149	0.449	0.476
	(0.271)	(0.372)	(0.379)	(0.271)	(0.372)	(0.377)
Performance	0.041	-0.030	-0.033	0.042	-0.026	-0.027
	(0.033)	(0.044)	(0.045)	(0.033)	(0.043)	(0.045)
Shock	0.403*	0.399*	0.447*	0.395*	0.388*	0.427*
	(0.210)	(0.224)	(0.228)	(0.213)	(0.222)	(0.227)
Offered Goods		0.102**	0.097**		0.098**	0.094**
		(0.045)	(0.046)		(0.045)	(0.045)
Constant	-1.191**	-2.415	-1.578	-1.148**	-2.294	-1.353
	(0.489)	(1.576)	(1.588)	(0.524)	(1.550)	(1.652)
Observations	157	157	157	157	157	157
Covariates	No	Yes	Yes	No	Yes	Yes
Pseudo R-squared	0.062	0.144	0.177	0.062	0.144	0.164

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Notes. [a]Covariates and loss aversion are described in the notes of Table 2.

The dependent variable is 1 if subjects breached the contract according to the definition in subsection 4.4 and 0 otherwise. *Fulfillable contract* is a dummy variable (1=contract fulfillable).

TABLE X: Robustness test of Table 5 in the main paper including a dummy variable for fulfillable contracts

	Contract Breach					
	(1)	(2)	(3)	(4)	(5)	(6)
Overestimation	0.104	-0.103	-0.214	0.0904	-0.241	-0.369*
	(0.106)	(0.172)	(0.193)	(0.107)	(0.187)	(0.200)
Loss Dummy		-0.883	-1.982			
		(1.010)	(1.592)			
Overestimation × Loss Dummy		0.292	0.303			
		(0.194)	(0.207)			
Loss aversion				0.144	-0.218	-0.138
				(0.167)	(0.235)	(0.245)
Overestimation × Loss Aversion					0.0893**	0.0984**
					(0.0418)	(0.0431)
Underestimation	0.0106	-0.0532	-0.136	0.0191	0.0326	0.0835
	(0.476)	(0.486)	(0.565)	(0.477)	(0.465)	(0.501)
Fulfillable Contract	-0.722	-0.495	0.275	-0.584	-0.172	0.602
	(0.780)	(0.797)	(1.081)	(0.798)	(0.802)	(1.063)
Performance	0.314***	0.298***	0.185	0.308***	0.277***	0.148
	(0.0968)	(0.0977)	(0.125)	(0.0972)	(0.0959)	(0.119)
Shock	-0.0292	-0.0699	-0.532	0.112	0.0664	-0.370
	(0.632)	(0.661)	(0.750)	(0.654)	(0.638)	(0.706)
Offered Goods			0.235*			0.239*
			(0.132)			(0.127)
Constant	0.747	1.318	-6.366	0.130	1.421	-4.842
	(1.579)	(1.723)	(4.546)	(1.738)	(1.799)	(4.428)
Observations	75	75	75	75	75	75
R-squared	0.138	0.167	0.279	0.148	0.202	0.307
Covariates[a]	No	No	Yes	No	No	Yes

Standard errors in parentheses
*** $p<0.01$, ** $p<0.05$, * $p<0.1$

Notes. [a]Covariates and loss aversion are described in the notes of Table 2.
The dependent variable is continuous and follows the definition in subsection 4.4. The presented regressions focus on subjects who breached the contract (N=75). *Fulfillable contract* is a dummy variable (1=contract fulfillable).

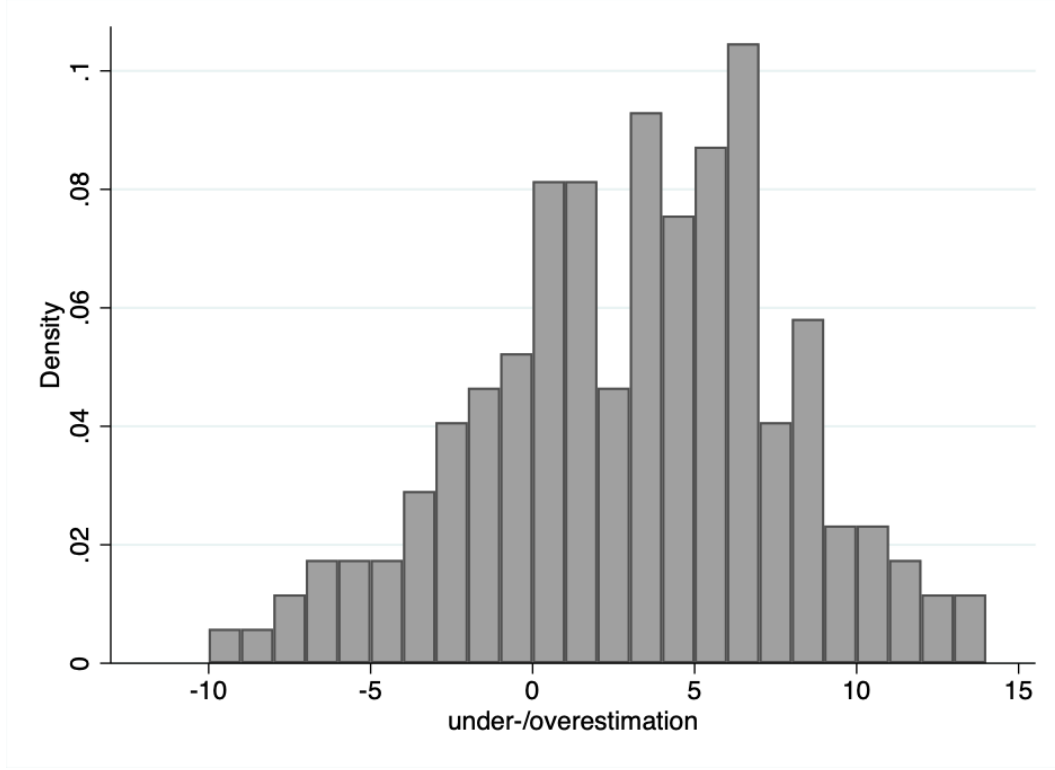# C   Additional figures

FIGURE I: Histogram of under-/overestimation (N=172)

Notes. The histogram illustrates performance misperception in the real-effort task. Agents who underestimate their performance range left of zero, agents who overestimate their performance range right of zero, and agents who estimate their performance correctly have an under-/overestimation of zero.
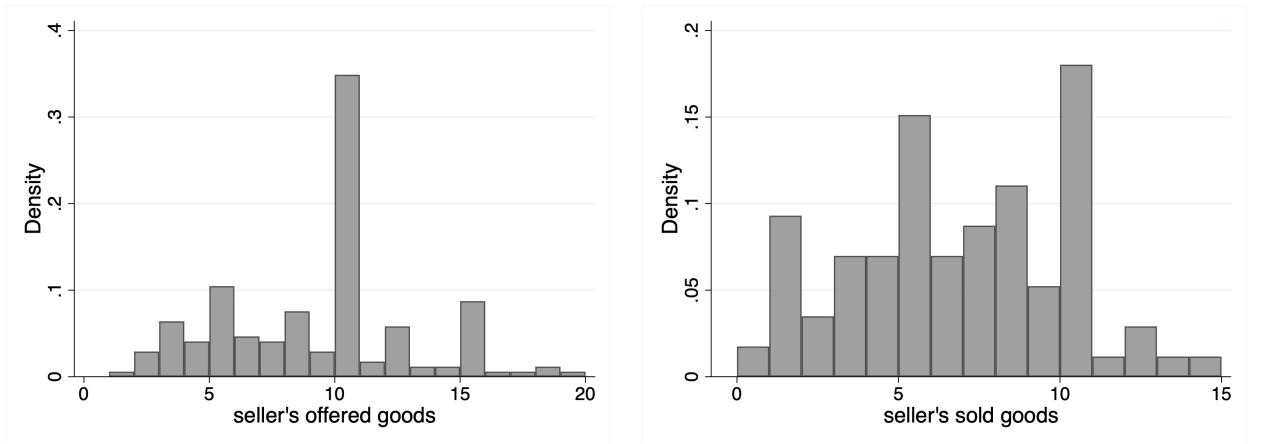

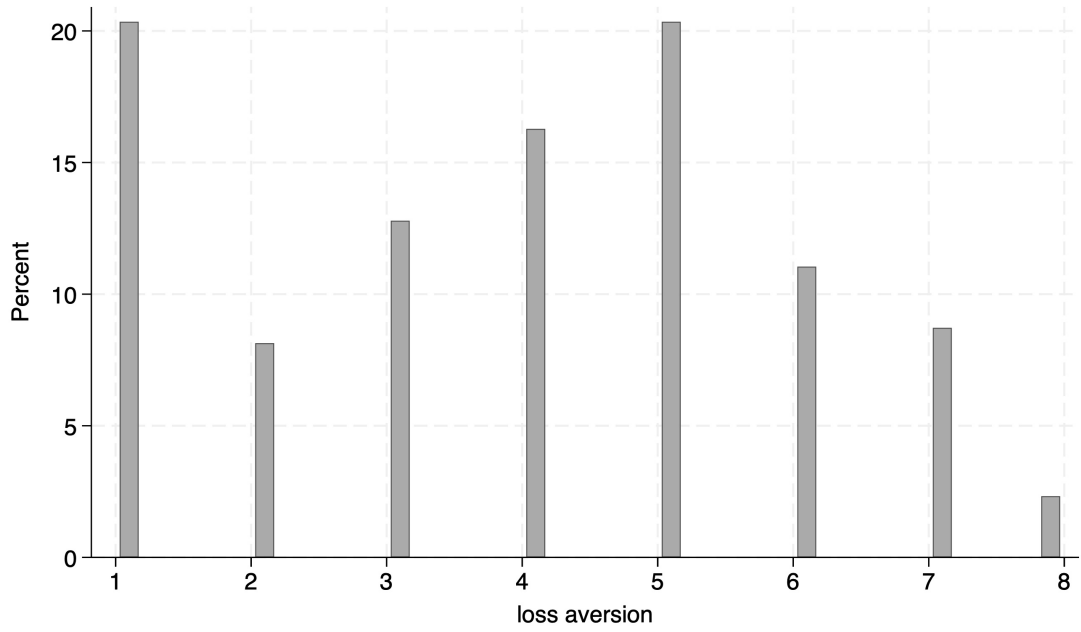FIGURE II: Histogram of seller's offered goods (left) and sold goods (right) (N=172)

FIGURE III: Histogram of loss aversion (N=172)
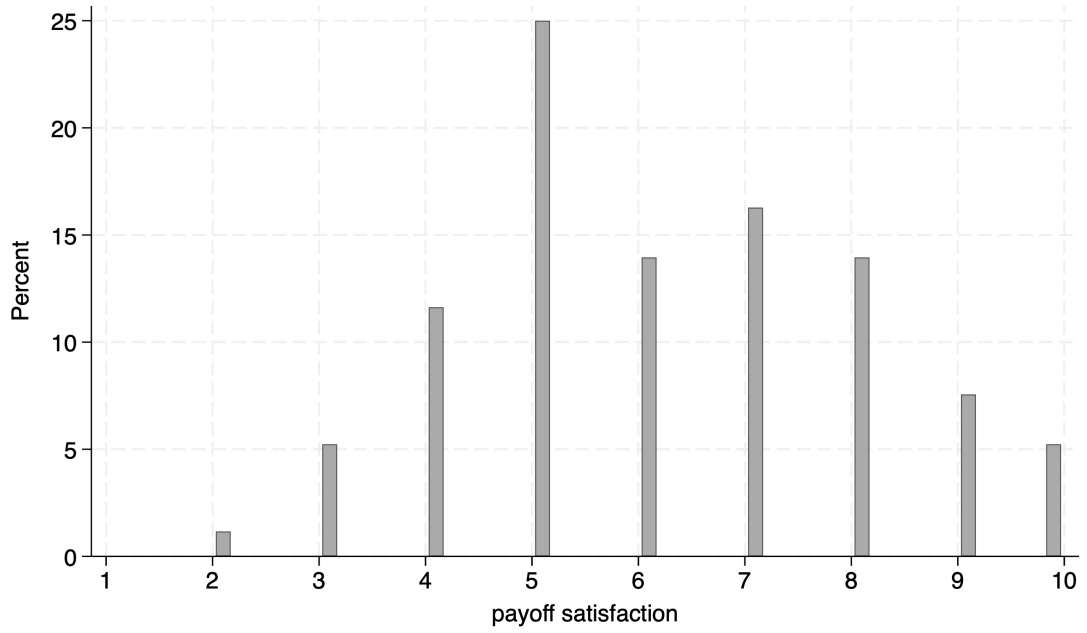
FIGURE IV: Histogram of payoff satisfaction (N=172)

References

D Instructions

Experimental Instructions

"Contract Breach under Biased Beliefs"

by S. Fischer and K. Grosch

Content

1 Welcome

Welcome to today`s session

We would like to welcome you to today`s session!

We start when all participants are in the room. If all participants are seated, you will get a little introduction and further information on today`s session.

Next

Two short questions before we start...

1. Generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people? Please answer on a scale from 1 to 10 whereas 1 means "need to be very careful" and 10 means "most people can be trusted". Please choose one number between 1 and 10. You may grade your answers with values in between.

   ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 ○ 8 ○ 9 ○ 10

2. Do you think most people would try to take advantage of you if they got a chance, or would they try to be fair? Please answer on a scale from 1 to 10 whereas 1 means "people would try to take advantage" and 10 means "people would try to be fair". Please choose one number between 1 and 10. You may grade your answers with values in between.

   ○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 ○ 8 ○ 9 ○ 10

Next

2 Section 1

Section 1

Section 1 contains 4 subsections: 1A, 1B, 1C and 1D.

We start with subsection 1A.

Please click "Next" to continue

Next

2.1 Section 1A: Social Value Orientation

Section 1A Instructions

In this section, you will be paired with one other participant in the room.

You will not learn who this other participant is and the participant you are matched with will not learn who you are.

There are **two roles** in this activity: role A (in the following person A) and role B (in the following person B). Person A has to actively decide how to allocate coins between person B and himself/herself. Person B has to accept the preferred allocation by person A.

All persons will actively decide in the role of person A– however, for which role (A or B) you will be paid will be randomly chosen by the computer.

On the following page, we will explain the activity in further detail.

Please click "Next" to continue

Next

Section 1A Instructions

You will be presented a series of decisions like this one:

You receive	50	54	59	63	68	72	76	81	85
Other receives	100	89	79	68	58	47	36	26	15

Each of the middle lines determines how much person A and person B receives. Looking at the first middle line, person A (that is you if you are selected into this role) receives 50 coins and person B (that is the person you are matched with) receives 100 coins. As we move to the right, the payment for the person in role A increases to 54, 59 up to 85. The payment of participant B decreases from 100 to 15 at the same time.

The task of the person in role A is to **decide on the preferred allocation** by choosing one of nine money allocations. The chosen distribution will determine the payments of the person in role A and the person in role B.

Only one distribution can be marked in each question.

On the next slide, we will give you an example of how such a decision can look like.

Next

Section 1A Example I

A person in role A decided for the coin-allocation you see here:

	1	2	3	4	5	6	7	8	9
	○	○	○	○	●	○	○	○	○
You receive	50	54	59	63	68	72	76	81	85
Other receives	100	89	79	68	58	47	36	26	15

A participant in role A decided for allocation 5. If this decision set is chosen for payment, person A would receive 68 coins. The person he/she is matched with, would receive 58 coins.

On the next page, we show you a second example. Please, press next.

Next

Section 1A Example II

A person in role A decided for the coin-allocation you see here:

	1	2	3	4	5	6	7	8	9
	○	○	●	○	○	○	○	○	○
You receive	85	87	89	91	93	94	96	98	100
Other receives	15	19	24	28	33	37	41	46	50

A participant in role A decided for allocation 3. If this decision set is chosen for payment, person A would receive 89 coins. The person he/she is matched with, would receive 24 coins.

On the next page, we will explain how the payoff will be calculated. Please, press next.

Next

Section 1A Instructions

Payment:

You will make decisions for six different decision sets.

You make your decisions with "coins" whereas

1 coin = GHC 0.03.

The computer will randomly decide for which role you are paid. The computer will randomly pick one of the decision sets for payment. You will only learn which decision set was drawn, for which role you are paid and how much you earned at the very end of today's workshop.

We have finished the instructions for this subsection.

Now, we move on to the control questions.

Please press **Next** as soon as you are ready to start with the control questions.

Next

Section 1A Control Question 1/3

Look at the decision set below. A participant in role A has decided for allocation 7 (see below). How much would **person B** earn when this decision set is picked for payment?

- ● 36
- ○ 100
- ○ 15

	1	2	3	4	5	6	7	8	9
	○	○	○	○	○	○	●	○	○
You receive	50	54	59	63	68	72	76	81	85
Other receives	100	89	79	68	58	47	36	26	15

Next

Correct, 36 is what person B will earn for allocation 7

- 1) 36
- 2) 100
- 3) 15

Look at the decision set below. A participant in role A has decided for allocation 7 (see below). How much would person B earn when this decision set is picked for payment?

	1	2	3	4	5	6	7	8	9
	○	○	○	○	○	○	●	○	○
You receive	50	54	59	63	68	72	76	81	85
Other receives	100	89	79	68	58	47	36	26	15

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Section 1A Control Question 2/3

Look at the decision set below. Person A can decide for one coin allocation. Which allocation number yields the **highest payoff for person B**?

- ○ 9
- ○ 3
- ◉ 1

	1	2	3	4	5	6	7	8	9
	○	○	○	○	○	○	○	○	○
You receive	50	54	59	63	68	72	76	81	85
Other receives	100	89	79	68	58	47	36	26	15

Next

Correct, Choice 1 would yield the highest payoff for person B

- 1) 9
- 2) 3
- 3) 1

Look at the decision set below. Person A can decide for one coin allocation. Which allocation number yields the highest payoff for person B?

	1	2	3	4	5	6	7	8	9
	○	○	○	○	○	○	○	○	○
You receive	50	54	59	63	68	72	76	81	85
Other receives	100	89	79	68	58	47	36	26	15

Next

Section 1A Control Question 3/3

Look at the decision set below. Person A can decide for one coin allocation. For which allocation does person A decide if he/she wants to have **the same payoff as person B**?

◉ 1
○ 5
○ 7

	1	2	3	4	5	6	7	8	9
	○	○	○	○	○	○	○	○	○
You receive	85	85	85	85	85	85	85	85	85
Other receives	85	76	68	59	50	41	33	24	15

Next

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Correct, Choice 1 would get you the same payoff as person B.

- 1) 1
- 2) 5
- 3) 7

Look at the decision set below. Person A can decide for one coin allocation. For which allocation does person A decide if he/she wants to have the same payoff as person B?

	1	2	3	4	5	6	7	8	9
	○	○	○	○	○	○	○	○	○
You receive	85	85	85	85	85	85	85	85	85
Other receives	85	76	68	59	50	41	33	24	15

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Section 1A Decision 1/6

Please decide for your preferred money allocation!

○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 ○ 8 ○ 9

	1	2	3	4	5	6	7	8	9
	○	○	○	○	○	○	○	○	○
You receive	85	85	85	85	85	85	85	85	85
Other receives	85	76	68	59	50	41	33	24	15

Next

Please decide for your preferred money allocation!

○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 ○ 8 ○ 9

	1	2	3	4	5	6	7	8	9
	○	○	○	○	○	○	○	○	○
You receive	85	87	89	91	93	94	96	98	100
Other receives	15	19	24	28	33	37	41	46	50

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Section 1A Decision 3/6

Please decide for your preferred money allocation!

○ 1　○ 2　○ 3　○ 4　○ 5　○ 6　○ 7　○ 8　○ 9

	1	2	3	4	5	6	7	8	9
	○	○	○	○	○	○	○	○	○
You receive	50	54	59	63	68	72	76	81	85
Other receives	100	98	96	94	93	91	89	87	85

Next

Please decide for your preferred money allocation!

○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 ○ 8 ○ 9

	1	2	3	4	5	6	7	8	9
	○	○	○	○	○	○	○	○	○
You receive	50	54	59	63	68	72	76	81	85
Other receives	100	89	79	68	58	47	36	26	15

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Section 1A Decision 5/6

Please decide for your preferred money allocation!

○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 ○ 8 ○ 9

	1	2	3	4	5	6	7	8	9
	○	○	○	○	○	○	○	○	○
You receive	100	94	88	81	75	69	63	56	50
Other receives	50	56	63	69	75	81	88	94	100

Next

Please decide for your preferred money allocation!

○ 1　○ 2　○ 3　○ 4　○ 5　○ 6　○ 7　○ 8　○ 9

	1	2	3	4	5	6	7	8	9
	○	○	○	○	○	○	○	○	○
You receive	100	98	96	94	93	91	89	87	85
Other receives	50	54	59	63	68	72	76	81	85

Next

End of Section 1A

You finished section 1A. We will now start with section 1B. We wait until all other participants have finished this subsection. Please press the next button.

Next

2.2　Section 1B: Inequality Aversion

Section 1B Instructions

We start now with the instructions for subsection 1B. In 1B, the computer will randomly pair you with one other participant in the room. You will not learn who this other participant is and the participant you are matched with will not learn who you are.

In this section, the situation is as follows:

Person 1 is matched with person 2.
Person 1 will receive GHC 8 and can decide how much of the GHC 8, he/she wants **to pass on to person 2**.

Person 2 knows that person 1 has been called to make this decision, and may either accept the distribution chosen by person 1, or reject it.

In case that person 2 accepts person 1's proposed distribution, that distribution will be implemented. If person 2 rejects the offer, both receive nothing.

You will have to make decisions as if you were person 1 and also as if you were person 2. In the latter case, you will have to decide when you would accept or reject the distribution by person 1.

Next

Section 1B Instructions

Payment:

The computer will randomly chose if you will be paid for the role of person 1 or the role of person 2.

If the computer **picks you to take up the role of person 1**, there are **two cases**:

1) Person 2 accepts your offer. Then your decision will be implemented: You earn GHC 8 minus the amount you pass on. (And Person 2 receives the amount you pass on).

2) Person 2 does not accept your offer. Then your decision will not be implemented. You and Person 2 both earn GHC 0.

If the computer **picks you to take up the role of person 2**, you will earn the payoff that person 1 (the participant in the role of Person 1 you are paired with) chose for person 2 but only if you had accepted that particular offer. Otherwise, you both earn nothing.

You will only learn at the very end of today's session how much you earned in this activity.

We will give you an example on decisions of a person 1 and a person 2 and the resulting payoffs on the following pages.

Next

Section 1B Example I

Person 1 is asked: How much of the GHC 8 would you pass on to person 2? It could be any amount between 0 and 8 but only full amounts (0, 1, 2, 3, 4, 5, 6, 7 or 8). **Decision of person 1: GHC 3**

Person 2 is asked at the same time: Person 1 received GHC 8. What is the minimum amount Person 1 has to offer you that you accepted the offer? **Decision of person 2: GHC 2**

Payment: Person 1 would pass on GHC 3. Person 2 only claims GHC 2 to accept the offer. Therefore this distribution will be implemented. Person 1 earns GHC 5 (GHC 8 – GHC 3 = GHC 5). Person 2 earns GHC 3.

We will give you one other example on the next page.

Next

Section 1B Example II

Person 1 is asked: How much of the GHC 8 would you pass on to person 2? It could be any amount between 0 and 8 but only full amounts (0, 1, 2, 3, 4, 5, 6, 7 or 8). **Decision of person 1: GHC 5**

Person 2 is asked at the same time: Person 1 received GHC 8. What is the minimum amount Person 1 has to offer you that you accepted the offer? **Decision of person 2: GHC 7**

Payment: Person 1 would pass on GHC 5. However, person 2 claims GHC 7 to accept the offer. Therefore this distribution will not be implemented. Person 1 earns GHC 0. Person 2 earns GHC 0.

Next

Control question 1/2

Person 1 is asked: How much of the GHC 8 would you pass on to person 2? It could be any amount between 0 and 8 but only full amounts (0, 1, 2, 3, 4, 5, 6, 7 or 8). **Decision of person 1: GHC 1**

Person 2 is asked at the same time: Person 1 received GHC 8. What is the minimum amount Person 1 has to offer you that you accepted the offer? **Decision of person 2: GHC 4**

In the scenario above: How much does **person 2** earn?

Person 2 earns:

○ **GHC 0**

○ **GHC 3**

◉ **GHC 4**

We have finished the instructions for this subsection.

Next

Control question 1/2 Answer

Wrong: Person 1 offers person 2 GHC 1. Person 2 accepts any offer of person 1 higher than GHC 4. GHC1 is smaller than GHC 4. Therefore person 2 does not accept the offer and person 1 and person 2 both earn 0.

Person 1 is asked: How much of the GHC 8 would you pass on to person 2? It could be any amount between 0 and 8 but only full amounts (0,1, 2, 3, 4, 5, 6, 7 or 8).

Decision of person 1: GHC 1

Person 2 is asked at the same time: Person 1 received GHC 8. What is the minimum amount he/she has to offer you that you accepted the offer?

Decision of person 2: GHC 4

In the scenario below: How much does person 2 earn?

Person 1 earns:

  Person 2 earns:

- GHC 0
- GHC 3
- GHC 4

Next

Control question 2/2

Person 1 is asked: How much of the GHC 8 would you pass on to person 2? It could be any amount between 0 and 8 but only full amounts (0, 1, 2, 3, 4, 5, 6, 7 or 8). **Decision of person 1: GHC 4**

Person 2 is asked at the same time: Person 1 received GHC 8. What is the minimum amount Person 1 has to offer you that you accepted the offer? **Decision of person 2: GHC 4**

In the scenario above: How much does **person 1** earn?

Person 1 earns:

- ○ **GHC 0**
- ● **GHC 2**
- ○ **GHC 4**

Next

Control question 2/2 Answer

Wrong: Person 1 offers person 2 GHC 4. Person 2 accepts any offer of person 1 higher than GHC 4. The offer equals the minimum "acceptance amount" of person 2. Therefore, person 2 accepts the offer and person 1 and person 2 both earn 4.

Person 1 is asked: How much of the GHC 8 would you pass on to person 2? It could be any amount between 0 and 8 but only full amounts (0, 1, 2, 3, 4, 5, 6, 7 or 8).

Decision of person 1: GHC 1

Person 1 received GHC 8. What is the minimum amount he/she has to offer you that you accepted the offer? **Decision of person 2: GHC 4**

In the scenario below: How much does person 1 earn? How much does person 2 earn?

Person 1 earns:

- GHC 0
- GHC 2
- GHC 4

Next

You finished reading the instructions and answered the control questions. You are now ready to make your final decisions. You will first make your decision in the role of person 1. Afterwards, you will make your decision in the role of person 2.

Please click "Next" if you are ready.

Next

Your Decision

You are now making your decision for the role of person 1:

How much of the GHC 8 would you pass on to person 2? It could be any amount between 0 and 8 but only full amounts (0, 1, 2, 3, 4, 5, 6, 7 or 8).

Your decision GHC:

Next

Your Decision

You now make your decision for the role of person 2:

What is the minimum amount Person 1 has to offer you that you accepted the offer?

Your decision GHC:

[   ]

Next

End of Section 1B

You finished section 1B. We will now start with section 1C. Please press the next button.

Please click "Next" to continue.

Next

2.3 Section 1C: Risk Preferences

Section 1C

In this subsection, we will offer you six different lotteries. These lotteries can have two outcomes: a high outcome (state A) or a low outcome (state B). It is randomly decided by a coin flip by the computer, which state will be realized. (Heads and tails are equally likely).

You have to select one of the six lotteries. That should be the one that you prefer most.

On the next page, we give you an example how the lotteries will look like.

Next

Examples Section 1C

Example I:

In the table you see six different lotteries. Each row defines one lottery. There are two states A and B. If a participant decides for the first lottery, then he/she receives **GHC 2.5 for sure because the payoff is GHC 2.5 for heads and tails** .

Example II:

If a participant **decides for lottery 4** , the coin flip will be relevant for the outcome: If the **coin shows heads**, the participant earns GHC 1.4. If the **coin shows tails**, the participant earns GHC 4.6.

Lottery	State A (coin shows heads)	State B (coin shows tails)	Select one Lottery
1	GHC 2.5	GHC 2.5	o
2	GHC 2.1	GHC 3.2	o
3	GHC 1.8	GHC 3.9	o
4	GHC 1.4	GHC 4.6	o
5	GHC 1.1	GHC 5.4	o
6	GHC 0.2	GHC 6.3	o

Next

Instructions Section 1C

Payment:

In this activity, you will only make one decision. The computer will randomly pick which state (A or B) will be realized in the lottery you picked. You will be paid for this decision for sure. You will only learn how much you earned at the very end of todays workshop.

We have now finished the instructions for this subsection and will now check for your understanding with three control questions.

As soon as you are ready, click ok and we start with the control questions.

Please try to answer them as best as you can.

Next

Section 1C Control Question 1/3

Look at the table below. A person has decided for lottery 3. If the computer flips the coin and the coin turns up heads, how much does this person earn?

- ○ 0
- ○ 3.9
- ◉ 1.8

Lottery	State A (coin shows heads)	State B (coin shows tails)	Select one Lottery
1	GHC 2.5	GHC 2.5	○
2	GHC 2.1	GHC 3.2	○
3	GHC 1.8	GHC 3.9	◉
4	GHC 1.4	GHC 4.6	○
5	GHC 1.1	GHC 5.4	○
6	GHC 0.2	GHC 6.3	○

Next

Section 1C Control Question 1/3

Look at the table below. A person has decided for lottery 3. If the computer flips the coin and the coin turns up heads, how much does this person earn?

- 1) 0
- 2) 3.9
- 3) 1.8

Lottery	State A (coin shows heads)	State B (coin shows tails)	Select one Lottery
1	GHC 2.5	GHC 2.5	o
2	GHC 2.1	GHC 3.2	o
3	GHC 1.8	GHC 3.9	●
4	GHC 1.4	GHC 4.6	o
5	GHC 1.1	GHC 5.4	o
6	GHC 0.2	GHC 6.3	o

Correct: The correct answer is 1.8. The lottery chosen is lottery 3. In this lottery one can either earn GHC 1.8 or GHC 3.9. As the coin turned up heads, state A comes into effect.

Next

Section 1C Control Question 2/3

Look at the table below. A person has decided for lottery 1. If the computer flips the coin and the coin turns up tails, how much does this person earn?

- ○ 0
- ○ 2
- ● 2.5

Lottery	State A (coin shows heads)	State B (coin shows tails)	Select one Lottery
1	GHC 2.5	GHC 2.5	●
2	GHC 2.1	GHC 3.2	○
3	GHC 1.8	GHC 3.9	○
4	GHC 1.4	GHC 4.6	○
5	GHC 1.1	GHC 5.4	○
6	GHC 0.2	GHC 6.3	○

Next

Section 1C Control Question 2/3

Look at the table below. A person has decided for lottery 3. If the computer flips the coin and the coin turns up heads, how much does this person earn?

- 1) 0
- 2) 2
- 3) 2.5

Lottery	State A (coin shows heads)	State B (coin shows tails)	Select one Lottery
1	GHC 2.5	GHC 2.5	●
2	GHC 2.1	GHC 3.2	o
3	GHC 1.8	GHC 3.9	o
4	GHC 1.4	GHC 4.6	o
5	GHC 1.1	GHC 5.4	o
6	GHC 0.2	GHC 6.3	o

Correct: The correct answer is 2.5. The lottery chosen is lottery 1. In this lottery the person earns GHC 2.5 either case: state A or B.

Next

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Section 1C Control Question 3/3

Look at the table below. A person has decided for lottery 6. If the computer flips the coin and the coin turns up tails, how much does this person earn?

- ○ 0.5
- ● 6.3
- ○ 0.2

Lottery	State A (coin shows heads)	State B (coin shows tails)	Select one Lottery
1	GHC 2.5	GHC 2.5	○
2	GHC 2.1	GHC 3.2	○
3	GHC 1.8	GHC 3.9	○
4	GHC 1.4	GHC 4.6	○
5	GHC 1.1	GHC 5.4	○
6	GHC 0.2	GHC 6.3	●

Next

Section 1C Control Question 3/3

Look at the table below. A person has decided for lottery 3. If the computer flips the coin and the coin turns up heads, how much does this person earn?

- 1) 0.5
- 2) 6.3
- 3) 0.2

Lottery	State A (coin shows heads)	State B (coin shows tails)	Select one Lottery
1	GHC 2.5	GHC 2.5	o
2	GHC 2.1	GHC 3.2	o
3	GHC 1.8	GHC 3.9	o
4	GHC 1.4	GHC 4.6	o
5	GHC 1.1	GHC 5.4	o
6	GHC 0.2	GHC 6.3	●

Correct: The correct answer is 6.3. The lottery chosen is lottery 6. In this lottery one can either earn GHC 0.2 or GHC 6.3. As the coin turned up tails, state B comes into effect.

Next

You finished reading the instructions and answered the control questions. You are now ready to make your final decisions.

If you are ready to make your decision, please press the Next-button.

Next

Your Decision

As announced, you have six lotteries to choose from! Please choose now the lottery that you would like to play most of all six lotteries.

Lottery	State A (coin shows heads)	State B (coin shows tails)	Select one Lottery
1	GHC 2.5	GHC 2.5	○
2	GHC 2.1	GHC 3.2	○
3	GHC 1.8	GHC 3.9	○
4	GHC 1.4	GHC 4.6	○
5	GHC 1.1	GHC 5.4	○
6	GHC 0.2	GHC 6.3	○

Next

End of Section 1C

You finished section 1C. We will now start with section 1D. We wait until all other participants have finished this subsection. Please press the next button.

Next

2.4   Section 1D: Loss Aversion

Section 1D Instructions

In the following activity, you can again decide on if to play a lottery. However, this time you can choose more than one lottery that you would like to play.

If you accept the lottery, **you can either win or lose money** . Whether you win or lose is decided randomly by a coin flip.

If you reject the lottery, you earn 0. Please press next to see how such a lottery would look like.

Next

Section 1D Instructions

Lottery	Accept	Reject
If the coin turns up heads, then you lose GHC 2; if the coin turns up tails, you win GHC 6	○	○

Above you see an example of a lottery. Left is described what you can lose if the coin turns up heads and what you can gain if the coin turns up tails. Right you can decide for acceptance or rejection of the lottery.

In the example above, the participant has to decide if he/she wants to accept the lottery of winning GHC 6 if the coin turns up tails and lose GHC 2 if the coin turns up heads.

If the participant decides to accept the lottery, the computer will toss a coin. If tails is up, the participant wins GHC 6. However, if the computer coin turns up heads, the earnings from the participant are reduced by GHC 2.

If the participant decides to reject the lottery, the participant will earn 0.

Next

Section 1D Instructions

Payment:

You will make decisions for six different lotteries. The computer will randomly pick one of the lotteries for payment. If you accept a lottery, there will be a random "coin toss" by the computer. This coin toss is decisive for your earnings – if you gain something or lose something – in the lottery. You will only learn which lottery was drawn and how much you have earned or lost at the very end of today's workshop. If you lose money, it will be deduced from your total payoff in today's session. Of course, you will never end up with less than GHC 20 (your participation fee).

Please note that the lotteries will be ordered in the final decision. The amount that can be lost will increase while the amount that can be won is the same in all lotteries. Therefore, you can only switch once.

We have finished the instructions for this subsection.

We now move on to the control questions.

Please click "Next" if you are ready to begin..

Next

Section 1D Control Question 1/3

Lottery	Accept	Reject
If the coin turns up heads, then you lose GHC 1; if the coin turns up tails, you win GHC 4	⭘	⬤

Please have a look at the lottery above. The person checked the box for "reject".

The coin is tossed and turns up heads.

How much does the person earn?

- ⭘ **Loses GHC 1**
- ⭘ **Gains GHC 4**
- ⭘ **Earns GHC 0**

Next

54

Section 1D Control Question 1/3

Lottery	Accept	Reject
If the coin turns up heads, then you lose GHC 1; if the coin turns up tails, you win GHC 4	○	●

Please have a look at the lottery above. The person checked the box for "reject".

The coin is tossed and turns up heads.

How much does the person earn?

- Loses GHC 1
- Gains GHC 4
- Earns GHC 0

Correct: The person rejected to play the lottery. Therefore, the person earns 0 in any case: heads or tails.

Next

Section 1D Control Question 2/3

Lottery	Accept	Reject
If the coin turns up heads, then you lose GHC 3; if the coin turns up tails, you win GHC 4	●	○

Please have a look at the lottery above. The person checked the box for "accept".

The coin is tossed and turns up heads.

How much does the person earn?

- ○ **Gains GHC 3**
- ○ **Loses GHC 3**
- ○ **Earns GHC 0**

Next

Section 1D Control Question 2/3

Lottery	Accept	Reject
If the coin turns up heads, then you lose GHC 3; if the coin turns up tails, you win GHC 4	●	○

Please have a look at the lottery above. The person checked the box for "accept".

The coin is tossed and turns up heads.

How much does the person earn?

- Gains GHC 3
- Loses GHC 3
- Earns GHC 0

Correct: The person accepted the lottery. Therefore, the lottery will be played. Heads results in a loss

Next

Section 1D Control Question 3/3

Lottery	Accept	Reject
If the coin turns up heads, then you lose GHC 8; if the coin turns up tails, you win GHC 2	●	○

Please have a look at the lottery above. The person checked the box for "accept".

The coin is tossed and turns up tails.

How much does the person earn?

- ◉ **Earn GHC 0**
- ○ **Gains GHC 2**
- ○ **Loses GHC 8**

Next

Section 1D Control Question 3/3

Lottery	Accept	Reject
If the coin turns up heads, then you lose GHC 8; if the coin turns up tails, you win GHC 2	●	○

Please have a look at the lottery above. The person checked the box for "accept".

The coin is tossed and turns up heads.

How much does the person earn?

- Earns GHC 0
- Gains GHC 2
- Loses GHC 8

Wrong: The person accepted the lottery. Therefore, the lottery will be played. Tails results in a gain of GHC 2 for this person as stated in the lottery description

Next

You finished reading the instructions and answered the control questions. You are now ready to make your final decisions.

If you are ready to take your decisions, **please press the Next-button.**

Next

Your Decision

Please make your decision for each of the following lotteries now. **Please note that the lotteries will be ordered in the final decision. The amount that can be lost will increase while the amount that can be won is the same in all lotteries. Therefore, you can only switch once.**

Lottery

#1. If the coin turns up heads, then you lose GHC 1.5; if the coin turns up tails, you win GHC 9	○ accept ○ reject
#2. If the coin turns up heads, then you lose GHC 3; if the coin turns up tails, you win GHC 9	○ accept ○ reject
#3. If the coin turns up heads, then you lose GHC 4.5; if the coin turns up tails, you win GHC 9	○ accept ○ reject
#4. If the coin turns up heads, then you lose GHC 6; if the coin turns up tails, you win GHC 9	○ accept ○ reject
#5. If the coin turns up heads, then you lose GHC 7.5; if the coin turns up tails, you win GHC 9	○ accept ○ reject
#6. If the coin turns up heads, then you lose GHC 9; if the coin turns up tails, you win GHC 9	○ accept ○ reject
#7. If the coin turns up heads, then you lose GHC 10.5; if the coin turns up tails, you win GHC 9	○ accept ○ reject

Next

End of Section 1D

You finished **section 1**! We will now start with **section 2**. Please press the next button.

Please press **Next**. We wait until all other participants have finished this subsection. Please be patient.

Next

3 Section 2

Section 2

1. All other participants have finished Section 1. Now we are ready to start with Section 2. Before we start, please answer the following question:

   Are you male or female?

   ⦿ male   ○ female

   Please press Next as soon as you are ready.

Next

Section 2

Section 2 consists of three different parts. The three parts are associated with each other.

In Part 1 you are going to work on a production task in which you will solve puzzles.

In Part 2 you will assess your own performance and the performance of others.

In Part 3 you will perform the task with similar puzzles again.

We will explain each part separately in detail one after another.

Please press Next to continue.

Next

3.1 Part 1

Section 2 Part 1

We start now with the instructions for Section 2 Part 1.

Please press Next as soon as you are ready.

Next

Section 2 Part 1: Instructions

In this part you will work on a production task, that is producing goods by solving puzzles. For each puzzle that will be solved correctly one good will be produced.

You will be confronted with 25 puzzles in form of multiple choice questions.

For each puzzle you will have 15 seconds time to choose the right answer. After 15 seconds the next question will appear automatically.

It will not be possible to go back to previous questions.

Please press Next to continue.

Next

Section 2 Part 1: Instructions

As a default always the first answer in every question is logged in automatically. If you do not make any entry the computer will keep answer 1.

Please note that it is completely random which number belongs to the correct answer.

Not choosing actively the right answer and always leaving the default answer logged in does not increase your chances of having correct answers.

On the next page, we give you an example of how such a puzzle could look like.

Please press Next to continue.

Next

Section 2 Part 1: Example 1

In this task you will have to choose the symbol that fits into the pattern. Example (1):

There is only one correct answer for each question.

Note that by default the first answer is logged in. Is that the right answer? Think about the right answer and check if you are right on the next page.

Please press Next to continue.

Next

Section 2 Part 1: Example 2

In this task you will have to choose the symbol that fits into the pattern. Example (2):

Complete the row!

Possible Answers:

1 O   2 ●   3 O   4 O

The correct answer is answer number 2.
Please press Next to continue.

Next

Section 2 Part 1: Payment

You will earn GHC 0.20 for each correct answer.

We have finished the instructions for Part 1. Now, we move on to the control questions.

Please press Next as soon as you are ready to start with the control questions.

Next

Section 2 Part 1: Control Question 1

Is the following statement true or false?

If I don't know the correct answer, keeping the default answer increases the probability of giving a correct answer:

◉ True ○ False

Next

Section 2 Part 1: Control Question 1

Is the following statement true or false?

If I don't know the correct answer, keeping the default answer increases the probability of giving a correct answer

Wrong. The default answer is always the first answer. Sometimes that will be the right answer, sometimes that will be the wrong answer. Choosing the default option does not increase the probability of having correct answers.

Next

Section 2 Part 1: Control Question 2

Is the following statement true or false?

My performance in this task will be relevant for my earnings in today's session:

○ True ● False

[Next]

Section 2 Part 1: Control Question 2

Is the following statement true or false?

My performance in this task will be relevant for my earnings in today's session

Wrong. You will earn GHC 0.20 for each correct answer you give.

Next

Section 2 Part 1: Control Question 3

Is the following statement true or false?

Everybody in the room works on the same tasks:

◉ True   ○ False

Next

Section 2 Part 1: Control Question 3

Is the following statement true or false?

Everybody in the room works on the same tasks

Correct. Every participant of the study is doing the same task at the same time.

Next

Section 2 Part 1

You finished the control questions!

Now you are ready to produce goods!

Press Next, if you are ready to begin

Next

Section 2 Part 1: Task 1
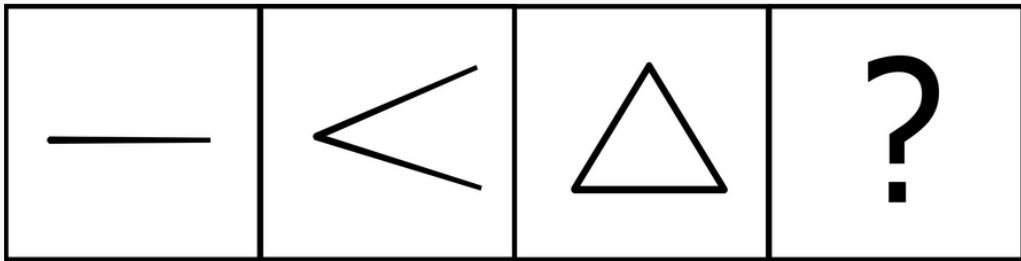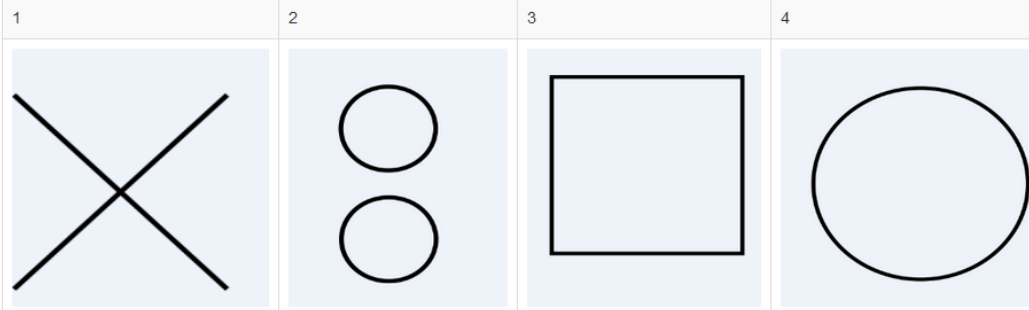
—	<	△	?

Complete the row!
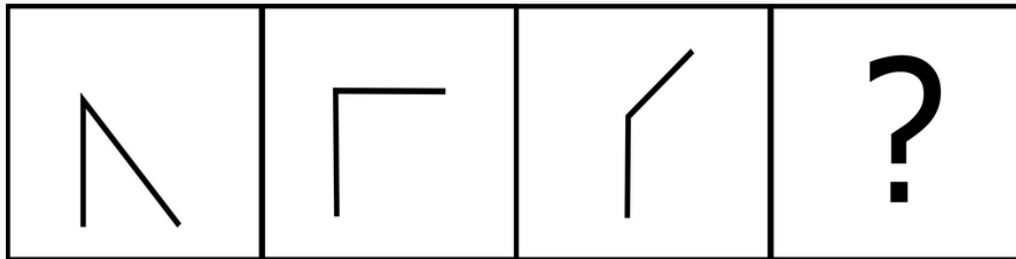
◉ 1 ○ 2 ○ 3 ○ 4

1	2	3	4
✕	○○	□	○
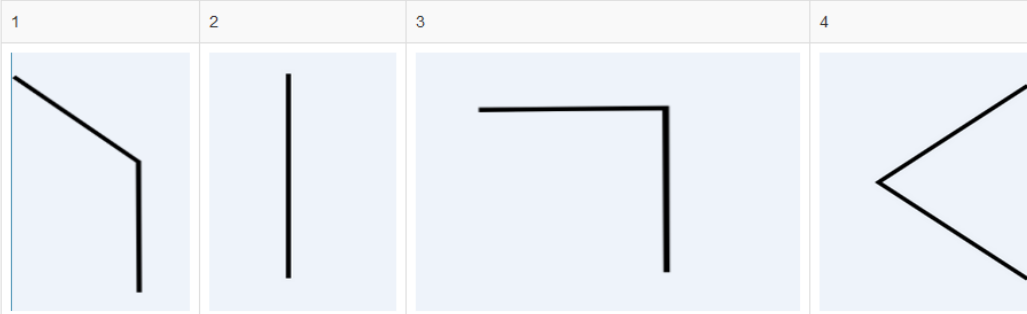
Section 2 Part 1: Task 2

Complete the row!

◉ 1 ◯ 2 ◯ 3 ◯ 4

1	2	3	4

Section 2 Part 1: Task 3
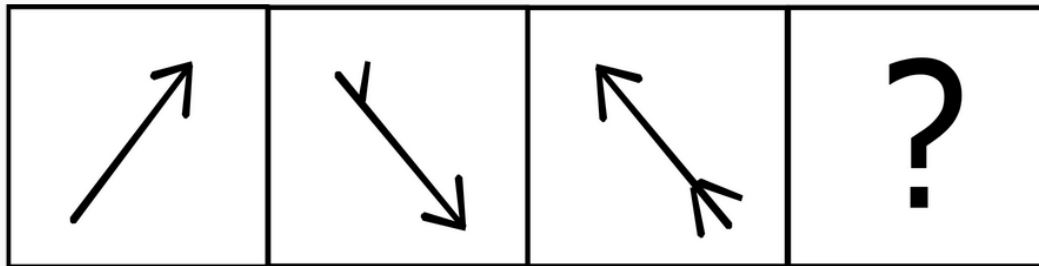
Complete the row!

○ 1 ○ 2 ◉ 3 ○ 4

| 1 | 2 | 3 | 4 |

...
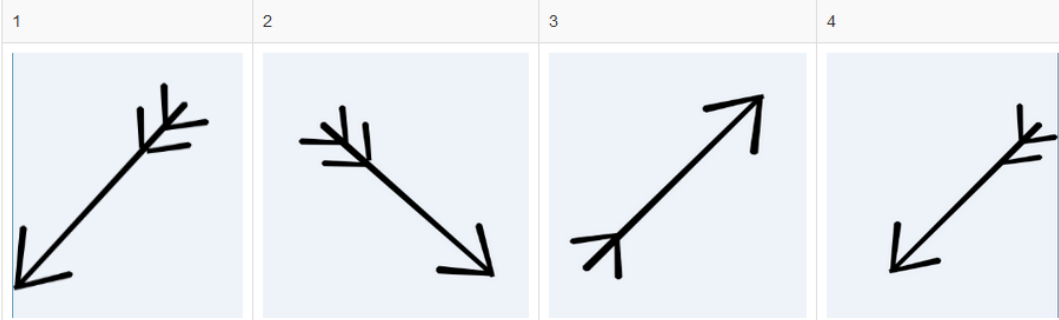
Section 2 Part 1

You finished Section 2 Part 1!

We will now start with Part 2.

Press Next, if you are ready to begin.

Next

3.2   Part 2

Section 2 Part 2: Instructions

We start now with the instructions for Part 2.

In this part we will ask you questions about how you evaluate your own performance and also the performance of other people in the production task.

Payment:

For each correct guess you can earn 5 Ghana Cedi. You will be informed at the end of the session about how much you earned in this part.

Please press Next to answer the first question.

Next

Section 2 Part 2

Estimate how many goods you have produced in the production task in Part 1! **Recall that you worked on 25 tasks in total.**

If your estimation is correct you will earn GHC 5.

What do you think, how many goods did you produce in Part 1?

I think I produced:

```
|
```

goods.

Please confirm your answer by clicking on the Next-button.

Next

Section 2 Part 2

Please give us your estimation on how many goods have been produced by men on average.

If your estimation is correct you will earn GHC 5.

What do you think, how many goods have been produced on average by other men in the room (excluding your own performance).

I think other men produced on average:

goods.

Please confirm your answer by clicking on the Next-button.

Next

Section 2 Part 2

Now we would like you to estimate how many goods have been produced by other participants in the room.

Please give us your estimation on how many goods have been produced by the other female participants on average.

If your estimation is correct you will earn GHC 5.

What do you think, how many goods have been produced on average by other women in the room (excluding your own performance).

I think other women produced on average:

goods.

Please confirm your answer by clicking on the Next-button.

Next

Section 2 Part 2: End

We have finished Part 2 of Section 2

Please click Next to continue.

Next

3.3   Part 3

Section 2 Part 3

We start now with the instructions of Part 3. Instructions for this part are a little bit longer than for the other activities. We explain the procedure therefore first only in words. Afterwards you will see illustrated instructions again. So do not worry if you do not get everything the first time.

In this section, you will be paired with one other participant in the room.

You will not learn who this other participant is and the participant you are matched with will not learn who you are.

Please click Next to continue.

Next

Section 2 Part 3: Instructions

The two persons who are matched with each other will be assigned different roles. One person will be selected to be a **buyer** and the other person will be selected to be a **seller**.

The buyer receives an endowment of GHC 4.

It will be random whether you will have the role of the buyer or the role of the seller.

Please click Next to continue.

Next

Section 2 Part 3

The buyer and the seller will be able to earn money by trading with each other.

The seller produces low value goods. Buyer and seller can decide to virtually sign a contract under which the buyer makes an investment that increases the value of the seller's goods and the seller delivers high value goods to the buyer.

The steps of trading are explained in detail on the following pages:

Please click Next to continue.

Next

Section 2 Part 3: Steps

Step 1: Production of goods (1)

The seller gets the opportunity to produce goods by answering 25 questions that are very similar to the ones in Part 1.

For every correct answer a low value good will be generated. That means that if all 25 questions will be answered correctly, a maximum of 25 goods can be produced by the seller.

The value of one low value good produced is GHC 0.20.

Next

Section 2 Part 3: Steps

Step 1: Production of goods (2)

It is possible that a shock occurs and affects the production of the seller. If the shock occurs, the production of the seller can be affected positively or negatively.

That means that some more goods are generated or some less goods are generated by chance, independently from the performance of the seller.

Next

Section 2 Part 3: Steps

Step 2: Decision of Seller

The seller can decide **to offer a contract to the buyer** on selling a certain quantity of goods to the buyer or **choose to sell the goods to an alternative market** for 0.20 GHC.
The seller does not know yet the number of goods that he or she produced but will be asked to give an estimation about his production similar as in Part 2.

If the seller does not offer a contract then the buyer keeps his endowment of GHC 4.

If the seller decides to offer a contract she/he will choose the number of goods that she/he is willing to sell to the buyer.

Only when the seller decides to offer a contract to the buyer, we continue with step 3.

Next

Section 2 Part 3: Steps

Step 3: Decision of Buyer

The buyer can decide whether to accept or to reject the contract.

If the buyer accepts the contract the endowment of GHC 4 will be invested in the seller's production. The investment of the buyer increases the value of the seller's goods. **The goods are transformed by the buyer's investment to high value goods**.

If the buyer rejects the offer, the buyer keeps his endowment and the seller sells each good to the alternative market for 0.20 GHC.

Next

Section 2 Part 3: Steps

Step 4: Selling goods (1)

After the contract has been made, the seller and the buyer will be informed about the amount of goods produced.

Seller and Buyer also get the information on whether or not a random shock could have affected the production.

In case there was a shock neither the seller nor the buyer will be informed about whether the shock was positive or negative.

Next

Section 2 Part 3: Steps

Step 4: Selling goods (2)

The seller has two different opportunities for selling high value goods. High value goods can be sold to the buyer for GHC 1 per good. High value goods can also be sold to the alternative market for GHC 2.5 per good.

The seller is supposed to sell the number of goods to the buyer, that has been agreed upon in the contract.

The surplus in produced goods are not supposed to be sold to the buyer and can be sold to the alternative market.

Next

Section 2 Part 3: Steps

Step 4: Selling goods (3)

The contract is not enforceable: The seller has the final decision on how many goods to sell to the buyer.

The buyer earns GHC 1 for each good that the seller sells to him.

The buyer does not earn anything for goods that are sold to the alternative market.

Next

Section 2 Part 3: Steps

<u>Repetition of the procedure in Part 2:</u>

The seller is producing goods by answering questions correctly.

Next

Section 2 Part 3: Steps

With a 50% chance a shock will occur.

A shock can either increase or decrease the number of goods.

It is equally likely that a shock will add 2 or reduce 2 goods.

Next

Section 2 Part 3: Steps

Examples for shocks:

Seller

The seller in the example produced 4 goods. Due to the shock, two more goods are generated. In total the seller's output is 6 goods.

Next

Section 2 Part 3: Steps

At this stage the seller does not know for sure his real output, but has an expectation about correct guesses.

The seller can

offer a contract on delivering a certain quantity of high value goods to the buyer.

OR

choose NOT to offer any contract and sell all goods to the alternative market for GHC 0.20. The Buyer keeps his endowment in this case.

Seller   Buyer
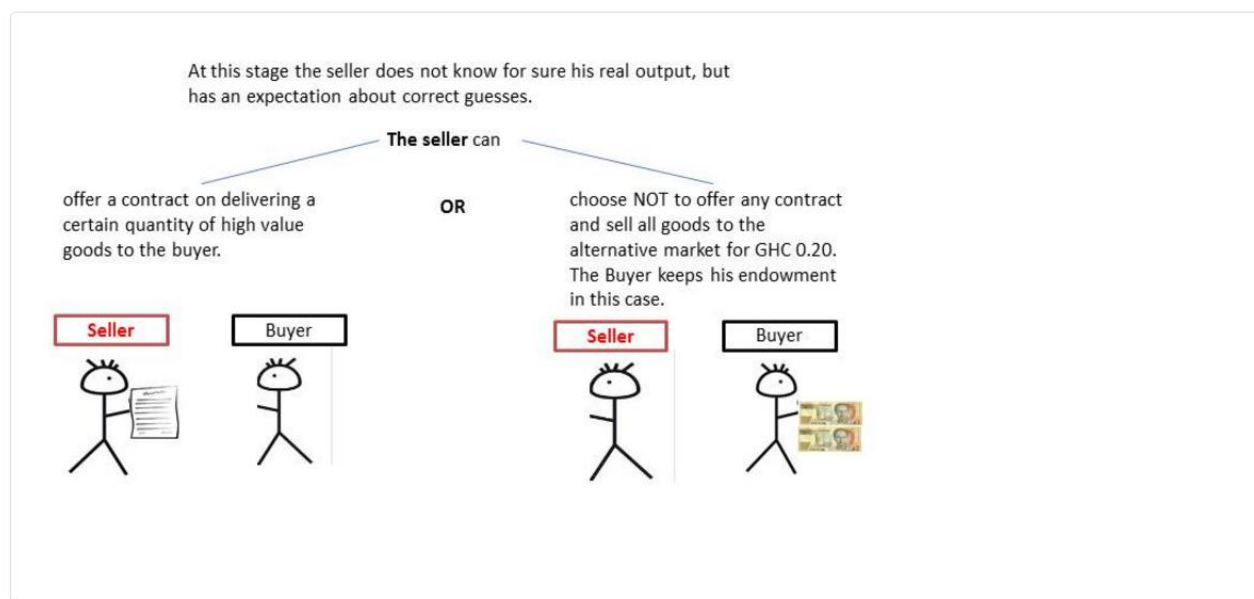
Seller   Buyer

Next

Section 2 Part 3: Steps

Only if the seller offers a contract, the buyer can decide to accept or reject the offer.

The buyer can

accept the contract and
invest GHC 4 into the
production of the seller.
Goods are transformed
into high value goods in
this case

OR

choose NOT to accept any
contract and keep GHC 4
instead. The Seller sells all
goods to the alternative
market for GHC 0.20 in this
case.

Seller   Buyer
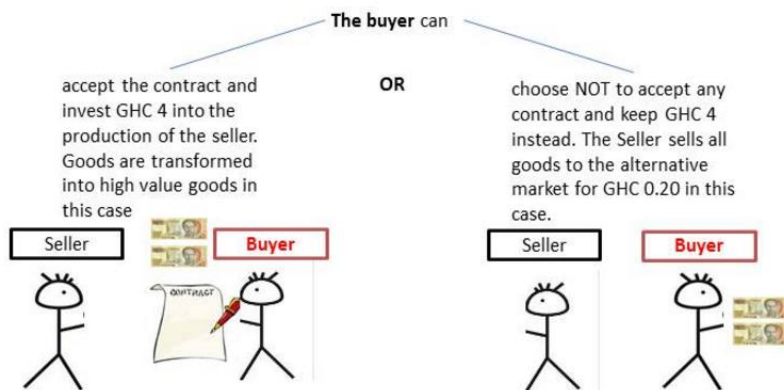
Seller   Buyer

Next

Section 2 Part 3: Steps

Buyer and seller will be informed about the final number of produced high value goods.

And they will be informed about whether a shock has occured or not.

If a shock has occured they are NOT informed about how many goods have been deduced or added to the production of the seller.
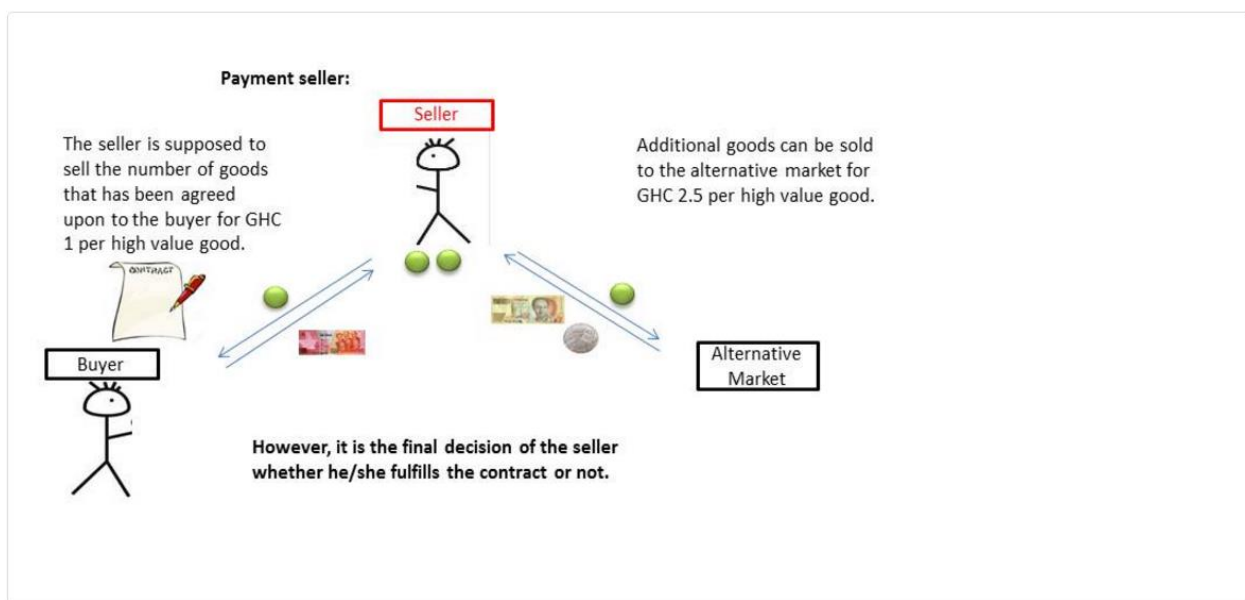
Seller and buyer can only observe the final outcome.

Next

Section 2 Part 3: Steps

Payment seller:

Seller

The seller is supposed to sell the number of goods that has been agreed upon to the buyer for GHC 1 per high value good.

Additional goods can be sold to the alternative market for GHC 2.5 per high value good.

Buyer

Alternative Market

However, it is the final decision of the seller whether he/she fulfills the contract or not.

Next

Section 2 Part 3: Steps

Payment buyer:

The buyer earns GHC 1 for every good that the seller sells to him.

Seller

The buyer earns nothing for goods that the seller sells to the alternative market.

Buyer

Alternative market

Next

Section 2 Part 3

Please remember that in Part 1, you all engaged in a similar production task already.

Please note that the buyers will be informed about the performance of the sellers during the test questions in Part 1.

Please click Next to continue.

Next

Section 2 Part 3

We have finished the instructions for Part 3.

Now, we move on to the control questions.

Please press Next as soon as you are ready to start with the control questions.

Next

Section 2 Part 3: Control Question 1

Is the following statement true or false?

The buyer does not earn any money if he doesn't accept a contract.

○ True ● False

Next

Section 2 Part 3: Control Question 1

Is the following statement true or false?

The buyer does not earn any money in Part 3 if he doesn't accept a contract.

Correct. If the buyer decides not to accept the contract, he/she earns his/her endowment of 4 GHC.

Next

Section 2 Part 3: Control Question 2

Is the following statement true or false?

The contract will be enforced automatically.

○ True ● False

Next

Section 2 Part 3: Control Question 2

Is the following statement true or false?

The contract will be enforced automatically.

Correct. The contract is not enforceable. The seller is supposed to honor the contract, but the buyer does not receive his share automatically. Whether the buyer receives his share depends on the decision of the seller.

Next

Section 2 Part 3: Control Question 3

Is the following statement true or false?

The number of goods that will be produced depends only on the seller's performance in the task.

◯ True   ⦿ False

Next

Section 2 Part 3: Control Question 3

Is the following statement true or false?

The number of goods that will be produced depends only on the seller's performance in the task.

Correct. For every correct answer of the seller one good will be generated. However, it is possible that a shock occurs. A shock can either deduce two goods or add two additional goods with equal likelihood.

Next

Section 2 Part 3: Control Question 4

Is the following statement true or false?

Shocks will always occur.

○ True ◉ False

Next

Section 2 Part 3: Control Question 4

Is the following statement true or false?

Shocks will always occur.

Correct. A shock occurs only with 50% probability. Buyer and seller will be informed about whether a shock has occured once the seller finished the task. However, they will not be informed about whether the shock was positive or negative.

Next

Section 2 Part 3: Control Question 5

Imagine a seller signs a contract with a buyer over delivering 10 goods to him/her. Assume the seller produces in total 15 goods. He/she sticks to the contract and sells 10 goods to the buyer and 5 goods to the outside option. How much would the seller earn?

○ 10 Ghana Cedi

○ 15 Ghana Cedi

● 22.5 Ghana Cedi

[Next]

Section 2 Part 3: Control Question 5

Is the following statement true or false?

Correct. The seller would earn 22,5 Ghana Cedi. If he/she sticks to the contract the seller sells 10 goods to the buyer for 1 Ghana Cedi per good. The total income from selling to the buyer is 10 Ghana Cedi. In total the seller produced 15 goods. There is a surplus of 5 goods that can be sold to the outside option. Here the seller earns 2,5 Ghana Cedi per good. The total income from selling to the outside option is therefore 12,5 Ghana Cedi. The total earnings are the sum of income from selling to the buyer and selling to the outside option, i.e. 22,5 Ghana Cedi.

Next

Section 2 Part 3: Control Question 6

Imagine a seller signs a contract with a buyer over delivering 10 goods to him. Assume the seller produces in total 15 goods. The seller does not honor the contract and sells 5 goods to the buyer and 10 goods to the outside option. How much would the buyer earn ?

- ○ 10 Ghana Cedi
- ● 5 Ghana Cedi
- ○ 7.5 Ghana Cedi

Next

Section 2 Part 3: Control Question 6

Is the following statement true or false?

> **Correct.**The buyer would earn 5 Ghana Cedi. For each good that the seller sells to him the buyer earns 1 Ghana Cedi. If the seller sells 5 goods to the buyer the buyer therefore earns 5 Ghana Cedi.

Next

Section 2 Part 3

You finished the control questions.

You will be now randomly matched with another person and randomly assigned by the computer to either the role of the buyer or the role of the seller.

We will wait until the other participants have also finished the instructions.

Please click Next to continue.

Next

3.3.1   Seller (before working on re-task)

Section 2 Part 3: Role

You have been randomly selected to be a **Seller.**

You will stay a **Seller** for the entire second part of this section.

Please click Next to continue.

Next

Treatment: Exact Feedback

Section 2 Part 2

Before you start to produce goods we would like to inform you about the amount of goods you produced in Part 1.

Please click on Next to see your performance in Part 1.

Next

Section 2 Part 2

Your performance in Part 1 was **7 goods** .

Please click Next to continue

Next

Treatment: Noisy Feedback

Section 2 Part 2

Before you start to produce goods we would like to inform you about how many goods you produced in Part 1.

You will not learn the exact amount of produced goods but you receive a range in which your real performance lies in.

It is equally likely that your real performance is on the lower end, somewhere in the middle or at the upper end of the range.

Please click Next to have a look at your performance in Part 1.

Next

Section 2 Part 2

Your performance of Part 1 lies between **2 and 8 goods.**

Please click Next to continue

Next

Re-task (all treatments)

Section 2 Part 3

You can now start to produce goods.

Be reminded that the task consists of 25 puzzles and you will have 15 seconds for each puzzle.

For every correct answer one low value good with a value of GHC 0.20 will be produced.

Please click Next to continue.

Next

Section 2 Part 3: Task 1

Complete the row!

◯ 1 ⦿ 2 ◯ 3 ◯ 4

1	2	3	4

Section 2 Part 3: Task 2

∧	—	∨	?

Complete the row!

◉ 1 ○ 2 ○ 3 ○ 4

1	2	3	4
│	<	/	>

Section 2 Part 3: Task 3

Complete the row!

● 1 ○ 2 ○ 3 ○ 4

1	2	3	4

• • •

3.3.2   Buyer (before working on re-task)

Section 2 Part 3: Role

You have been randomly selected to be a **Buyer.**

You will stay a **Buyer** for the entire second part of this section.

Please click Next to continue.

Next

Section 2 Part 2

Before you start to produce goods we would like to inform you about the amount of goods you produced in Part 1.

Please click on Next to see your performance in Part 1.

Next

Section 2 Part 2

Your performance in Part 1 was **7 goods** .

Please click Next to continue

Next

Section 2 Part 3

The seller is now producing goods.

In the meantime you have two different options, while you are waiting.

You can

1. Do the task of Part 1 with similar puzzles again for yourself. You will get 1 candy if your performance is above 3 goods. OR
2. Do the task of Part 1 with similar puzzles again in a competition against another randomly selected player. You will compete against the performance of a randomly selected player in Part 1. If you win the competition you will earn 4 candys.

You will learn about how many candies you earned only at the very end of today's session.

Please click Next to continue.

Next

Section 2 Part 3: Tasks

Please decide what you want to do while the seller is producing goods. (The first option is logged in automatically. If you want to switch, please press the button for option 2.)

- ⦿ **I want to do the task again for myself.**
- ○ **I want to do the task again and compete against another participant.**

Confirm your answer by clicking on Next.

[Next]

Section 2 Part 3: Task 1

Complete the row!

◯ 1 ⦿ 2 ◯ 3 ◯ 4

Section 2 Part 3: Task 2

Complete the row!

◉ 1 ○ 2 ○ 3 ○ 4

1	2	3	4

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Section 2 Part 3: Task 3

Complete the row!

⦿ 1 ○ 2 ○ 3 ○ 4

1	2	3	4

139

● ● ●

3.3.3   Seller (after re-task)

Treatment Anchoring (one slide)

Section 2 Part 3

Time's up!

Do you think you gave more than **20** correct answers?

○ Yes

○ No

[Next]

Section 2 Part 3

What do you think, how many correct answers did you give?

I think my performance was

12

correct answers.

If your guess is correct you will earn GHC 5.

How sure are you that your guess is correct?
The more you move the slider to the right the more sure you are. The more you move the slider to the left the less sure you are.

Not Sure	Sure

Does the position of the slider represent how sure you are with your estimation?

◉ **Yes.**

If not, please adjust the ruler, so that it fits you. Please confirm your answers by clicking on the Next-button.

Next

Section 2 Part 3

You can now **decide to offer a contract to the buyer** or not to offer any contract and **sell your goods for GHC 0.20 per piece** to the alternative market.

If you offer a contract:

You will make a decision on the amount of produced goods you want to sell to the buyer for a price of GHC 1.

If the buyer accepts the contract by making an investment the value of your goods will increase. According to the contract terms you will be supposed to sell the number of goods to the buyer that you have agreed upon.

Next

Section 2 Part 3

You stated that you estimate that you produced 12 goods.

The buyer will only be informed about the amount of goods that you produced in the trial round in Part 1.

Please remember that the value of your goods will only increase if the buyer agrees to make an investment. Therefore, think carefully about your offer.

Next

Section 2 Part 3: Calculate Profits

With this tool you can calculate the expected profit from the contract depending on your expected performance and your offer. You can change your entry as often as you want. You can also see your profit and the buyers profit.

My expected performance is 12 goods

I offer [4] goods to the buyer.

Your income from selling to the buyer: GHC [4]

Your income from selling to outside option: GHC [20]

Your total income: GHC [24]

The buyers' total income: GHC [4]

Please click on the Next-Button in order to decide whether you want to offer a contract.

[Next]

Section 2 Part 3: Offer Contract

Your expected performance is 12 goods

Will you offer the buyer a contract?

○ Yes

○ No

Please click Next to continue.

Next

Section 2 Part 3: Offer Goods

Your expected performance is 12 goods

How many goods do you want to offer?

4

Please click Next to continue.

Next

Please wait

Waiting for the other participant.

Section 2 Part 3: Offer Accepted

The buyer decided to accept your contract and made the investment. Your goods are now transformed to high value goods.

Please click Next to continue.

Next

No Shock Treatment

Section 2 Part 3

Your production has **not** been affected by a shock.

You produced **6 goods** .

Please click Next to continue.

Next

Section 2 Part 3

The buyer has been informed about the number of goods that you produced and that your production has not been affected by a random shock.

The buyer also knows your performance in Part 1.

Please click Next to continue.

Next

Section 2 Part 3: Contract Overview

Your expected performance was **12 goods** .
You produced **6 goods.** According to the contract you are supposed to sell **4 goods** to the buyer.

According to your expected performance and the contract that you signed your expected payoff was **24.0GHC** . If you sticked to the contract you and the buyer would earn the payoffs written below:

Please note that if your number of produced goods is not enough in order to fulfill the contract this overview assumes that you sell all produced goods to the buyer and nothing to the alternative market.

Your income from selling to the buyer: **4.0 GHC**

Your income from selling to the alternative market: **5.0 GHC**

Your total income: **9.0 GHC**

The buyers' total income: **4.0GHC**

Please click on next in order to decide how many goods you finally want to sell to the buyer.

Next

Section 2 Part 3: Calculate Profits

Your expected performance was **12 goods** .
You produced **6 goods.** According to the contract you are supposed to sell **4 goods** to the buyer.

According to your expected performance and the contract that you signed your expected payoff was **24.0GHC** .

Please make now your final decision on how much you want to sell to the buyer. You can see your profit and the buyer's profit depending on your decision. You can **try out scenarios in the upper part** of the page. You **make your final decision on the bottom** of the page.

Please note that you can't sell more than the maximum amount of produced goods.

I sell 4 goods to the buyer.

Your income from selling to the buyer: GHC 4

Your income from selling to outside option: GHC 5

Your total income: GHC 9

The buyers' total income: GHC 4

How much do you want to sell to the buyer?

Please confirm your final decision by clicking on next.

Next

Section 2 Part 3: Sold Goods

You sold **4 goods** to the buyer.

Your Income from the contract is GHC9.00.

Please click Next to continue.

Next

Shock Treatment

Section 2 Part 3

Your production has been affected by a shock.

The shock could have been positve or negative.
That means that the number of goods you produced was either increased by two or decreased by two.

You're final output is **4 goods**.

Please click Next to continue.

Next

Section 2 Part 3

The buyer has been informed about the number of goods that you produced and that your production has been affected by a random shock.

The buyer also knows your performance in Part 1.

Please click Next to continue.

Next

Section 2 Part 3: Contract Overview

Your expected performance was **12 goods** .
You produced **4 goods.** According to the contract you are supposed to sell **4 goods** to the buyer.

According to your expected performance and the contract that you signed your expected payoff was **24.0GHC** . If you sticked to the contract you and the buyer would earn the payoffs written below:

Please note that if your number of produced goods is not enough in order to fulfill the contract this overview assumes that you sell all produced goods to the buyer and nothing to the alternative market.

Your income from selling to the buyer: **4.0 GHC**

Your income from selling to the alternative market: **0.0 GHC**

Your total income: **4.0 GHC**

The buyers' total income: **4.0GHC**

Please click on next in order to decide how many goods you finally want to sell to the buyer.

Next

Your expected performance was **12 goods** .
You produced **4 goods.** According to the contract you are supposed to sell **4 goods** to the buyer.

According to your expected performance and the contract that you signed your expected payoff was **24.0GHC** .

Please make now your final decision on how much you want to sell to the buyer. You can see your profit and the buyer's profit depending on your decision. You can **try out scenarios in the upper part** of the page. You **make your final decision on the bottom** of the page.

Please note that you can't sell more than the maximum amount of produced goods.

I sell 4 goods to the buyer.

Your income from selling to the buyer: GHC 4

Your income from selling to outside option: GHC 0

Your total income: GHC 4

The buyers' total income: GHC 4

Please confirm your final decision by clicking on next.

How much do you want to sell to the buyer?

4

Please confirm your final decision by clicking on next.

Next

Section 2 Part 3: Sold Goods

You sold **4 goods** to the buyer.

Your Income from the contract is GHC9.00.

Please click Next to continue.

Next

Section 2 Part 3: Finished!

You finished section 2!

Before you proceed to the questionnaire, you have the opportunity to earn some extra money for yourself or somebody else for answering the questionnaire. For that, we do a short activity with dice. There will be two questions and one of these questions will be randomly chosen for payment at the end of today's session.

YYou find dice and cup in your box.

Please press Next to read further instructions.

Next

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3.3.4 Buyer (after re-task)

Section 2 Part 3: Accept Contract

The seller produced in the trial round in Part 1 **7 goods.**

Now you have been offered **4 goods.**

Do you want to accept the contract?

◉ Yes

◯ No

Please click Next to continue.

[Next]

Please wait

Waiting for the other participant.

No Shock Treatment

Section 2 Part 3: Produced Goods

The seller's production has **not** been affected by a shock.

The Seller's output is **6 goods.**

Please click Next to continue.

Next

Shock Treatment

Section 2 Part 3: Produced Goods

The seller's production has been affected by a shock.

The shock could have been positve or negative.
That means that the number of goods the seller produced was either increased by two or decreased by two.

The Seller's final output is **4 goods.**

Please click Next to continue.

Next

Section 2 Part 3: Sold Goods

The seller sold **4 goods** to you.

Your Income from the contract is GHC4.00.

Please click Next to continue.

Next

3.4   Dice-Game

Section 2 Part 3: Finished!

You finished section 2!

Before you proceed to the questionnaire, you have the opportunity to earn some extra money for yourself or somebody else for answering the questionnaire. For that, we do a short activity with dice. There will be two questions and one of these questions will be randomly chosen for payment at the end of today's session.

YYou find dice and cup in your box.

Please press Next to read further instructions.

Next

Section 2 Part 3: Dice and Cups

First question:

You may now receive an additional payoff. You determine your own payoff by throwing your dice twice. The dice is 10-sided. The higher the number on the dice, the more payoff you might receive. If you reported a 1 and the question is selected for payment, you will receive GHC 0,20, if you throw a 2, you will receive GHC 0,40 and so on and so forth. The payoffs are displayed in the table below.

Dice	1	2	3	4	5	6	7	8	9	10
Payoff	0,20	0,40	0,60	0,80	1	1,20	1,40	1,60	1,80	2

Your first throw serves to make sure that the dice is working properly.

Your second throw determines how much you might receive if this question is selected for payment.

You may of course throw the dice more than twice. However, only the second throw counts.

Please click Next to continue.

Next

Section 2 Part 3: Role Dice

Please roll the dice now.

Please roll the dice a second time and report the number on the dice.

Please click Next to continue.

Next

Section 2 Part 3: Dice and Cups

Second question:

You may now earn some money for a charity. You determine how much is donated by throwing your dice twice as soon as you are asked to. The dice is 10-sided. The higher the number on the dice, the more payoff the charity might receive. If you reported a 1 and the question is selected for payment, we will donate GHC 0,20, if you throw a 2, we will donate GHC 0,40 and so on and so forth. The payoffs are displayed in the table below.

Dice	1	2	3	4	5	6	7	8	9	10
Payoff	0,20	0,40	0,60	0,80	1	1,20	1,40	1,60	1,80	2

Your first throw serves to make sure that the dice is working properly.

Your second throw determines how much the charity might receive if this question is selected for payment.

You may of course throw the dice more than twice. However, only the second throw counts.

Please click Next to continue.

Next

Section 2 Part 3

If this question is selected for payment, to which organisation would you like to spend the money to?

Please select one of the charities below.

○ **Kasapa Centre (charity supporting children's and youth education in Ghana)**

○ **Women Support Activist Group (WOSAG) (aims to improve the quality of life of women in Ghana)**

○ **Community Home in Haatso /Accra (orphanage giving homeless children a new home)**

○ **From heart to hand (financial support of families in Ghana)**

○ **Lepers Aid Committee (LAC) (support –provision of goods and services- of people suffering from leprosy or disability due to leprosy)**

Please press Next and roll the dice!

Next

Section 2 Part 3: Role Dice

Please roll the dice now.

Please roll the dice a second time and report the number on the dice.

Please click Next to continue.

Next

Section 2 Part 3: Completed

You finished section 1 and 2 and the dice game! Please put dice and the cup aside. You will not need it anymore.

This is the last part of today's session. Please, answer all upcoming questions on the next pages truthfully.

We will now ask you questions to the experiment first.

Please press Next to start answering questions regarding the activities in today's session.

Next

4 Questionnaire

4.1   Questions on the Experiment

Questions regarding today's session I

Q1. How interesting were the activities in general for you? Rate on a scale from 0 to 10 whereas 0 means "not at all interesting" and 10 "very interesting"

○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 ○ 8 ○ 9 ○ 10

Q2. How hard have you tried to understand all activities to the best of your ability? Rate on a scale from 0 to 10 whereas 0 means "have not tried at all" to 10 "have tried very hard". You may grade your answers with values in between.

○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 ○ 8 ○ 9 ○ 10

Q3. How much did you enjoy working on the production task the first time (Part1)? Rate on a scale from 0 to 10 whereas 1 means "did not enjoy it at all" and 10 "enjoyed it a lot". You may grade your answers with values in between.

○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 ○ 8 ○ 9 ○ 10

Q4. How hard have you tried to get as many right answers as possible in the production task the first time (Part1)? Rate on a scale from 1 to 10 whereas 0 means "did not try at all" and 10 "tried a lot". You may grade your answers with values in between.

○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 ○ 8 ○ 9 ○ 10

Q5. How frequent have you worked on tasks such as the production task in the past?

○ Never ○ Rarely ○ Sometimes ○ Often ○ Very Often

On the next page, we will ask you some further questions regarding today's session.

Next

4.1.1 Seller

Questions regarding today's session II

Q1. How satisfied were you with your performance in the production task (Part 3)?
Rate on a scale from 1 to 10 whereas 0 means "very unsatisfied" and 10 "very satisfied". You may grade your answers with values in between.

very unsatisfied	very satisfied

○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 ○ 8 ○ 9 ○ 10

Q2. How satisfied are you with your final payoff from the production phase (Part 3)?
Rate on a scale from 1 to 10 whereas 0 means "very unsatisfied" and 10 "very satisfied". You may grade your answers with values in between.

very unsatisfied	very satisfied

○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 ○ 8 ○ 9 ○ 10

Q3. Recall the situation when you entered the contract. Try to remember (do not worry if you do not remember perfectly) how much

output you expected to produce?

[   ]

payoff you expected to receive from the buyer?

GHC [   ]

payoff you expected to receive from the alternative market?

GHC [   ]

payoff you expected to receive in total?

GHC [   ]

Q4. When you got informed about your performance and your payoff after the task, have you compared it to your expected performance/payoff?

○ Yes ○ No

Q5. If the answer to your last question was „yes", to which number have you compared your payoff to?

○ **I compared it to my expected output**

○ **I compared it to my expected payoff**

○ **I compared it to the payoff of the buyer**

○ **Something else**

Q6. Before you started to produce: How willing were you to fulfill the promise you made to the buyer?
Please rate on a scale from 0 to 10 whereas 0 means "not at all willing" and 10 "very willing". You may grade your answers with values in between.

not at all willing	very willing

○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 ○ 8 ○ 9 ○ 10

Q7. Do you find that the contract with the buyer was overall fair?
Please rate on a scale from 0 to 10 whereas 0 means "not fair at all" and 10 "very fair". You may grade your answers with values in between.

not fair at all	very fair

○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 ○ 8 ○ 9 ○ 10

Q8. How entitled have you felt over your produce in the production task in Part 3?
Please rate on a scale from 0 to 10 whereas 0 means "not entitled at all" and 10 "very entitled". You may grade your answers with values in between.

not entitled	very entitled

○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 ○ 8 ○ 9 ○ 10

Q9. After you have produced your output and learnt how much you produced, how have you felt?

○ I felt disappointed   ○ I felt joyful   ○ I was surprised   ○ Something else

Q10. Have you felt/ Do you feel sympathetic to the buyer?
Answer on a scale from 0 to 10 whereas 0 means „not at all"to 10 „very much". You may grade your answers with values in between.

not at all	very much

○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 ○ 8 ○ 9 ○ 10

Q11. Do you think that your performance in Section 2 Part 3 (the production task) was determined by luck or your own abilities?
Answer on a scale from 0 to 10 whereas 0 means determined by "my own abilities" and 10 determined by "luck". You may grade your answers with values in between.

my own abilities	luck

○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 ○ 8 ○ 9 ○ 10

Next

Questionnaire

You completed all questions about today's session!

On the next pages, we will ask you questions about yourself and your opinions.

Please press Next to start answering these questions.

Next

4.1.2 Buyer

Questions regarding today's session II

Q1. How satisfied were you with the seller's performance in the production task (Part 3)?
Rate on a scale from 0 to 10 whereas 0 means "very unsatisfied" and 10 "very satisfied". You may grade your answers with values in between.

very unsatisfied	very satisfied

○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 ○ 8 ○ 9 ○ 10

Q2. How satisfied are you with your final payoff from the production phase (Part 3)?
Rate on a scale from 0 to 10 whereas 0 means "very unsatisfied" and 10 "very satisfied". You may grade your answers with values in between.

very unsatisfied	very satisfied

○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 ○ 8 ○ 9 ○ 10

Q3. Have you felt/ Do you feel sympathetic to the seller?
Answer on a scale from 0 to 10 whereas 0 means „not at all"to 10 „very much".You may grade your answers with values in between.

not at all	very much

○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 ○ 8 ○ 9 ○ 10

Q4. Do you find that the contract with the seller was overall fair?
Please rate on a scale from 0 to 10 whereas 0 means "not fair at all" and 10 "very fair".

not fair at all	very fair

○ 1 ○ 2 ○ 3 ○ 4 ○ 5 ○ 6 ○ 7 ○ 8 ○ 9 ○ 10

Q5. What do you think is the major reason why the seller behaved in the way he did?

1. The seller wanted to maximize his/her payoff
2. The seller probably generally shows that kind of commitment to promises.
3. The seller has never seen me in person and therefore does not feel obliged to fulfill the promise.
4. The seller was not judged by anybody.
5. The seller produced less than he/she expected and felt disappointed about his/her performance
6. The seller produced more than he/she expected. Selling more to the outside option would not have made a big difference for the seller's payoff.
7. The seller produced more than he/she expected and felt joyful and generous.
8. Else

[ ]

Q6. Put yourself in the shoes of the seller. What would you have done?

○ **I would have held my promise**

○ **I would have taken everything from the buyer**

○ **I would have taken part of the promised money from the buyer**

○ **I do not know**

Q7. How do you think SHOULD a seller behave in a contract?

○ **I think a seller should always hold the promise made no matter what.**

○ **I think it depends on the circumstances. If a seller has financial problems, it is ok not to hold a promise.**

○ **I think if a seller made a promise to a buyer and the buyer cannot offer the highest price in the market, the buyer should either increase the price or the seller should sell to some other buyer**

Next

Questionnaire

You completed all questions about today's session!

On the next pages, we will ask you questions about yourself and your opinions.

Please press Next to start answering these questions.

Next

4.2   Locus of Control

Personal Opinions

In the following table you see 6 pairs of statements that always consist of a statment A and a statement B.
For each of the pairs please indicate with which of the two statements you agree most.

#	Statement A	Statement B	I Agree
1	A. In the long run the bad things that happen to us are balanced by the good ones.	B. Most misfortunes are the result of lack of ability, ignorance, laziness, or all three.	○ Much more with A ○ Slightly more with A ○ Slightly more with B ○ Much more with B
2	A. What happens to me is my own doing.	B. Sometimes I feel that I don't have enough control over the direction my life is taking.	○ Much more with A ○ Slightly more with A ○ Slightly more with B ○ Much more with B
3	A. With enough effort we can wipe out political corruption.	B. It is difficult for people to have much control over the things politicians do in office.	○ Much more with A ○ Slightly more with A ○ Slightly more with B ○ Much more with B
4	A. No pain no gain.	B. Sometimes hard work is not enough to be successful.	○ Much more with A ○ Slightly more with A ○ Slightly more with B ○ Much more with B

| 5 | A. Nature provides everything we need. | B. Men have to make nature productive. | ⚪ Much more with A ⚪ Slightly more with A
⚪ Slightly more with B
⚪ Much more with B |
| 6 | A. God is taking care of us. If we pray he will open opportunities for us. | B. God encourages us to be the architect of our own fortune. | ⚪ Much more with A ⚪ Slightly more with A
⚪ Slightly more with B
⚪ Much more with B |

Next

4.3   Self-Evaluation Scale

Statements I

Q1. I am confident I get the success I deserve in life.

○ Strongly Disagree ○ Disagree ○ Neutral ○ Agree ○ Strongly Agree

Q2. Sometimes I feel depressed.

○ Strongly Disagree ○ Disagree ○ Neutral ○ Agree ○ Strongly Agree

Q3. When I try, I generally succeed.

○ Strongly Disagree ○ Disagree ○ Neutral ○ Agree ○ Strongly Agree

Q4. Sometimes when I fail I feel worthless.

○ Strongly Disagree ○ Disagree ○ Neutral ○ Agree ○ Strongly Agree

Q5. I complete tasks successfully.

○ Strongly Disagree ○ Disagree ○ Neutral ○ Agree ○ Strongly Agree

Q6. Sometimes, I do not feel in control of my work.

○ Strongly Disagree ○ Disagree ○ Neutral ○ Agree ○ Strongly Agree

Q7. Overall, I am satisfied with myself.

      ○ Strongly Disagree   ○ Disagree   ○ Neutral   ○ Agree   ○ Strongly Agree

Q8. I am filled with doubts about my competence.

      ○ Strongly Disagree   ○ Disagree   ○ Neutral   ○ Agree   ○ Strongly Agree

Q9. I determine what will happen in my life.

      ○ Strongly Disagree   ○ Disagree   ○ Neutral   ○ Agree   ○ Strongly Agree

Q10. I do not feel in control of my success in my career.

      ○ Strongly Disagree   ○ Disagree   ○ Neutral   ○ Agree   ○ Strongly Agree

Q11. I am capable of coping with most of my problems.

      ○ Strongly Disagree   ○ Disagree   ○ Neutral   ○ Agree   ○ Strongly Agree

Q12. There are times when things look pretty bleak and hopeless to me.

      ○ Strongly Disagree   ○ Disagree   ○ Neutral   ○ Agree   ○ Strongly Agree

Next

4.4   Optimism

Statements II

Q1. In uncertain times, I usually expect the best.

    ○ Strongly Disagree ○ Disagree ○ Neutral ○ Agree ○ Strongly Agree

Q2. It's easy for me to relax.

    ○ Strongly Disagree ○ Disagree ○ Neutral ○ Agree ○ Strongly Agree

Q3. If something can go wrong for me, it will.

    ○ Strongly Disagree ○ Disagree ○ Neutral ○ Agree ○ Strongly Agree

Q4. I'm always optimistic about my future.

    ○ Strongly Disagree ○ Disagree ○ Neutral ○ Agree ○ Strongly Agree

Q5. I enjoy my friends a lot.

    ○ Strongly Disagree ○ Disagree ○ Neutral ○ Agree ○ Strongly Agree

Q6. It's important for me to keep busy.

    ○ Strongly Disagree ○ Disagree ○ Neutral ○ Agree ○ Strongly Agree

Q7. I hardly ever expect things to go my way

○ Strongly Disagree ○ Disagree ○ Neutral ○ Agree ○ Strongly Agree

Q8. I don't get upset too easily.

○ Strongly Disagree ○ Disagree ○ Neutral ○ Agree ○ Strongly Agree

Q9. I rarely count on good things happening to me.

○ Strongly Disagree ○ Disagree ○ Neutral ○ Agree ○ Strongly Agree

Q10. Overall, I expect more good things to happen to me than bad.

○ Strongly Disagree ○ Disagree ○ Neutral ○ Agree ○ Strongly Agree

Q11. If someone does me a favor, I am prepared to return it.

○ Strongly Disagree ○ Disagree ○ Neutral ○ Agree ○ Strongly Agree

Q12. I go out of my way to help somebody who has been kind to me before.

○ Strongly Disagree ○ Disagree ○ Neutral ○ Agree ○ Strongly Agree

Q13. I am ready to undergo personal costs to help somebody who helped me before.

○ Strongly Disagree ○ Disagree ○ Neutral ○ Agree ○ Strongly Agree

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4.5 Guilt and Shame Aversion

Statements to rate III

Q1. After realizing you have received too much change at a store, you decide to keep it because the salesclerk doesn't notice. What is the likelihood that you would feel uncomfortable about keeping the money?

○ Very Unlikely ○ Unlikely ○ Slightly Unlikely ○ About 50% Likely ○ Slightly Likely ○ Likely ○ Very Likely

Q2. You rip an article out of a journal in the library and take it with you. Your teacher discovers what you did and tells the librarian and your entire class. What is the likelihood that this would make you feel like a bad person?

○ Very Unlikely ○ Unlikely ○ Slightly Unlikely ○ About 50% Likely ○ Slightly Likely ○ Likely ○ Very Likely

Q3. You give a bad presentation at work. Afterwards your boss tells your coworkers it was your fault that your company lost the contract. What is the likelihood that you would feel incompetent?

○ Very Unlikely ○ Unlikely ○ Slightly Unlikely ○ About 50% Likely ○ Slightly Likely ○ Likely ○ Very Likely

Q4. You secretly commit a felony. What is the likelihood that you would feel remorse about breaking the law?

○ Very Unlikely ○ Unlikely ○ Slightly Unlikely ○ About 50% Likely ○ Slightly Likely ○ Likely ○ Very Likely

Q5. You successfully exaggerate your damages in a lawsuit. Months later, your lies are discovered and you are charged with perjury. What is the likelihood that you would think you are a despicable human being?

○ Very Unlikely ○ Unlikely ○ Slightly Unlikely ○ About 50% Likely ○ Slightly Likely ○ Likely ○ Very Likely

Q6. You make a mistake at work and find out a coworker is blamed for the error. Later, your coworker confronts you about your mistake. What is the likelihood that you would feel like a coward?

○ Very Unlikely   ○ Unlikely   ○ Slightly Unlikely   ○ About 50% Likely   ○ Slightly Likely   ○ Likely   ○ Very Likely

Q7. At a coworker's housewarming party, you spill red wine on their new cream-colored carpet. You cover the stain with a chair so that nobody notices your mess. What is the likelihood that you would feel that the way you acted was pathetic?

○ Very Unlikely   ○ Unlikely   ○ Slightly Unlikely   ○ About 50% Likely   ○ Slightly Likely   ○ Likely   ○ Very Likely

Q8. You lie to people but they never find out about it. What is the likelihood that you would feel terrible about the lies you told?

○ Very Unlikely   ○ Unlikely   ○ Slightly Unlikely   ○ About 50% Likely   ○ Slightly Likely   ○ Likely   ○ Very Likely

Next

Questionnaire

You completed the block of questions about your personal opinions.

We are nearly finished and some last questions personal questions follow on the next two pages.

Please press Next to start answering these questions.

Next

4.6 Other Questions

Other

Q1. How many times have you participated in an experimental study before? (If you have never participated before in an experiment, type in "0")

Q2. How many other participants in the room do you know in person?

Q3. Why did you participate in the study?

   ◯ Joy   ◯ Boredom   ◯ Interested in Science   ◯ Money   ◯ Other

Next

4.7   Sociodemographical Questions

Social

Q1. How old are you?

Q2. Are you a bachelor, master student or PhD student?
- ○ Bachelor
- ○ Master
- ○ PHD

Q3. Before your studies at university: Did you go to a boarding school?
- ○ Yes   ○ No

Q4. What do you study?
- ○ Business/Economics
- ○ Agricultural Sciences
- ○ Engineering
- ○ Psychology/Medicine
- ○ Natural Sciences(Biology, Chemistry, ...)
- ○ Mathematics/Informatics/IT
- ○ Humanities
- ○ Teaching
- ○ Else

Q6. Do you have a job/business besides your studies? If your answer was yes to the last question, what is/are your job(s)? (If you do not have job, enter "none" in the field)

Q6. Do you have a job/business besides your studies? If your answer was yes to the last question, what is/are your job(s)? (If you do not have job, enter "none" in the field)

[   ]

Q7. After your graduation, where/how would you prefer to work?

○ **Self-Employed**
○ **Public Service**
○ **Wage Labor**
○ **I do not mind**

Q8. In which sector do you want to work?

○ **Management (Production, Hospitality,Retail, ...)**
○ **Teacher**
○ **Technician/Associate (in health, legal, social, cultural, engineering, business, science, information and communication center)**
○ **Service Sector / Sales**
○ **Agriculture, Fishery, Forestry**
○ **Else**

Q9. How much money do you have at your disposal in a month taking all together: income from parents, stipends, money from jobs/businesses?

GHC [   ]

Q10. In which region have you grown up?

○ Ashanti ○ Brong-Ahafo ○ Greater Accra ○ Central ○ Eastern ○ Northern ○ Western ○ Upper East
○ Upper West ○ Volta ○ I am not coming from Ghana. I come from another country

Q11. Are you (mainly) matrilineal or (mainly) patriarchal?

- ○ **(Mainly) Matrilineal**
- ○ **(Mainly) Patriarchal**
- ○ **Neither**

Q12. How many brothers and sisters do you have that are

a. Older than you

[   ]

b. Younger than you

[   ]

Q1. What language do you normally speak at home?

○ Twi ○ English ○ Ewe ○ Dagbani ○ Dangme ○ Ga ○ Nzemaa ○ Kasem ○ Gonja ○ Other

Q13. Do you belong to a religion or religious denomination? To which one?

○ None ○ Christian ○ Muslim ○ Traditional ○ Other

Q14. If you are Christian: Which church do you attend?

- Catholic
- Orthodox
- Coptic
- Protestant mainline (Anglican, Lutheran, Methodist, Presbetaryan, Baptist, Quaker/ Friends, Mennonite, Dutch Reformed, Calvinist)
- Protestant non-mainline (Pentecostal, Charismatic, Independent, Church of Christ, Zionist Christian Church)
- Seven Days Adventist
- Jehovah Witness
- Mormon
- Other

Q15. Apart from weddings and funerals, about how often do you attend religious services these days?

- More than once a week
- Once a week
- Once a month
- Only on special Holy days
- Once a year
- Less often
- Never, practically never

Q16. And with which of the following statements do you agree most? The basic meaning of religion is:

- To make sense of life after death
- To make sense of life in this world

Next

5 The End

Questionnaire

You completed the questionnaire!

We wait now for all other participants to finish the questionnaire. We ask for your patience. Please stay seated and calm!

When everybody is ready you will get your payoff information for all the different activities today.

Please press Next!

Next

Thank you for your participation!

You completed the whole session for today.

Please remain seated and calm until your number is called. Then proceed to the cashier.

If you are interested in a certificate of appreciation for participating, please leave your name and email address at the registration desk.

We appreciate that you took part in our experiment!