

Are we more honest than others think we are? An experimental study

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Motivation

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- Underestimating honesty :
 - ⇒ Useless and costly control of population
 - ⇒ Self deprivation of value added services
- Overestimating honesty :
 - ⇒ Creation of non-efficient exchange
 - ⇒ Emergence of non-efficient actors

Existing literature and contributions

- Standard trust game of Berg et al. (1995)
⇒ lacks normative rule and includes money exchange implying inequality aversion and altruism effects. Trust \neq Beliefs on Honesty
- Cohn et al. (2015)
⇒ honesty based on a deviation from a normative rule
- Galeotti et al. (2017)
⇒ take into account diversity on players' environment. Nothing about beliefs on honesty
- Fischbacher and Föllmi-Heusi (2013); Hugh-Jones (2016)
⇒ experiment on both sides: honesty and beliefs on honesty. But analysis only at aggregated level

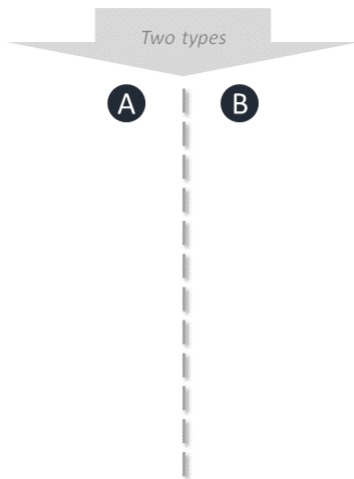
Experimental procedure

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- Elicitation of honesty and beliefs on honesty

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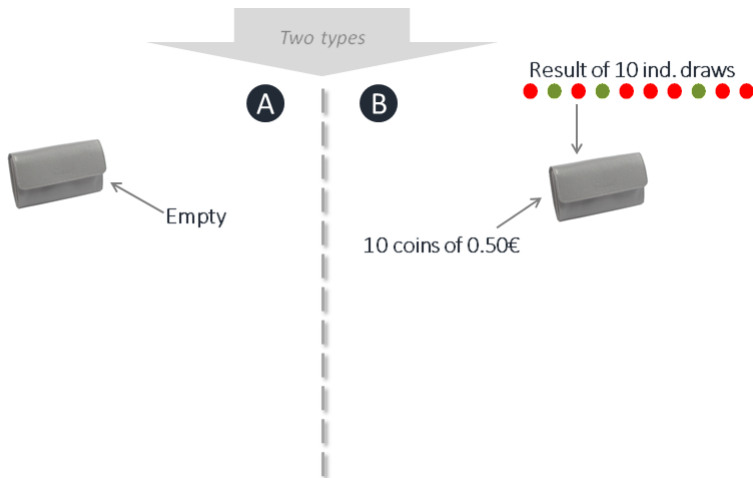
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Procedure

Experimental procedure

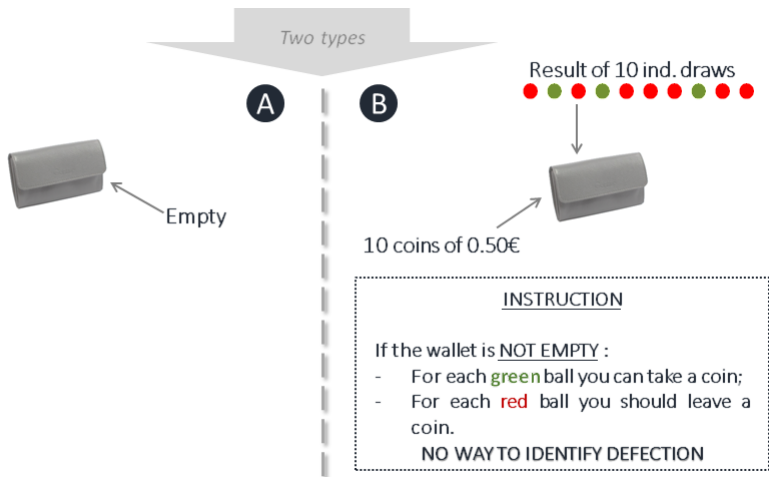
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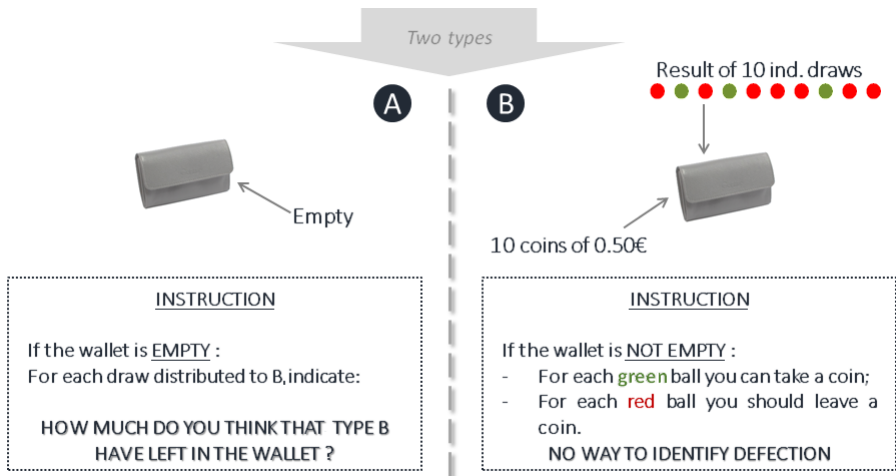
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For this part, the different draws distributed to participants B appear on your screen. You have to indicate for each of them: **How much, in euros, do you think that participant B have let in the wallet?**

To calculate your gain for this part, we randomly select one of these draws and you receive: **5 € - |your error of estimation|**

1st Draw : ●●●●●●●●●●

Your estimate:

2nd Draw ●●●●●●●●

Your estimate:

3rd Draw ●●●●●●●●

Your estimate:

4th Draw ●●●●●●●●

Your estimate:

5th Draw ●●●●●●●●

Your estimate:

Experimental procedure

- Elicitation of attitudes towards risky decisions in the gain and loss domains (Holt and Laury, 2002)

Please choose between A and B for the 10 following questions.

For each question you have 100 ECU, questions are independents.

For your final gain, we randomly select one question and your gain is calculated according to the realization of your corresponding chosen option.

Option A					Option B				
% of chance	Loss	and	% of chance	Loss	% of chance	Loss	and	% of chance	Loss
10 %	60 ECU		90 %	68 ECU	<input type="radio"/>	<input type="radio"/>		10 %	23 ECU
20 %	60 ECU		80 %	68 ECU	<input type="radio"/>	<input type="radio"/>		20 %	23 ECU
30 %	60 ECU		70 %	68 ECU	<input type="radio"/>	<input type="radio"/>		30 %	23 ECU
40 %	60 ECU		60 %	68 ECU	<input type="radio"/>	<input type="radio"/>		40 %	23 ECU
50 %	60 ECU		50 %	68 ECU	<input type="radio"/>	<input type="radio"/>		50 %	23 ECU
60 %	60 ECU		40 %	68 ECU	<input type="radio"/>	<input type="radio"/>		60 %	23 ECU
70 %	60 ECU		30 %	68 ECU	<input type="radio"/>	<input type="radio"/>		70 %	23 ECU
80 %	60 ECU		20 %	68 ECU	<input type="radio"/>	<input type="radio"/>		80 %	23 ECU
90 %	60 ECU		10 %	68 ECU	<input type="radio"/>	<input type="radio"/>		90 %	23 ECU
100 %	60 ECU		0 %	68 ECU	<input type="radio"/>	<input type="radio"/>		100 %	23 ECU

Valider

- The average deviation of B is 0.97 euros. Over the 40 B subjects 19, or 47%, respect the rule and 14, or 35%, fully deviate.

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- Interestingly, results highly depend on draws' conditions. Reminding us Fehr et al. (1992) and more recently Galeotti et al. (2017) results where subjects who are paid more are more likely to reciprocate by shirking less.

For the following econometric regression we define:

$$A_{i,t} = f(X_i; X_t) \times RB_t + \epsilon_{i,t}$$

Where $A_{i,t}$ is the answer of subject i for draw t , $f(X_i, X_t)$ is a linear combination of individual (X_i) and draw (X_t) explanatory variables and RB_t , is the amount allowed to be taken under the rule.

Hence, $E(f(X_i, X_t)) = 1$ means that subject i fully believes in others honesty. However, when $E(f(X_i, X_t))$ decreases, it means that subject i has lowest expectations with respect to others honesty.

Explanatory Variable	A's Expectation				
	Model 1	Model 2	Model 3	Model 4	Model 5
Coefficients					
<i>Std. error</i>					
Should be left	0.77*** 0.01				
Should be left × Risk Aversion (loss)					
Should be left × Risk Aversion (gain)					
Should be left × Should be left					
Should be left × Age					
Should be left × Gender (Ref. level : Female)					
Should be left × B's Deviation					
Nb. Observations	885				
Nb. Subjects	177				
R^2	0.721				
Adjusted R^2	0.721				

A subjects believe that B will take 23% more than according to the rule.

Signif. codes for p-values : 0.01 '***', 0.05 '**', 0.1 '*'

Explanatory Variable	A's Expectation				
	Model 1	Model 2	Model 3	Model 4	Model 5
Coefficients					
<i>Std. error</i>					
Should be left	0.77*** <i>0.01</i>	0.84*** <i>0.05</i>	1.47*** <i>0.08</i>		
Should be left × Risk Aversion (loss)		0.08 <i>0.08</i>			
Should be left × Risk Aversion (gain)		-0.02** <i>0.00</i>			
Should be left × Should be left			-0.01** <i>0.00</i>		
Should be left × Age			-0.21*** <i>0.02</i>		
Should be left × Gender (Ref. level : Female)					
Should be left × B's Deviation					
Nb. Observations	885	885	885		
Nb. Subjects	177	177	177		
R^2	0.721	0.723	0.744		
Adjusted R^2	0.721	0.722	0.743		

• A's expectations are significantly dependent on B draws: B favorable conditions reduce rule violation expectation.

• Risk averse subjects (in the gain domain only) have more pessimistic expectation about others honesty.

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Explanatory Variable	A's Expectation				
	Model 1	Model 2	Model 3	Model 4	Model 5
Coefficients					
<i>Std. error</i>					
Should be left	0.77*** <i>0.01</i>	0.84*** <i>0.05</i>	1.47*** <i>0.08</i>	1.48*** <i>0.15</i>	
Should be left × Risk Aversion (loss)		0.08 <i>0.08</i>			
Should be left × Risk Aversion (gain)		-0.02** <i>0.00</i>	-0.01** <i>0.00</i>	-0.01** <i>0.00</i>	
Should be left × Should be left			-0.21*** <i>0.02</i>	-0.21*** <i>0.02</i>	
Should be left × Age				-0.01 <i>0.01</i>	
Should be left × Gender (Ref. level : Female)				0.04 <i>0.03</i>	
Should be left × B's Deviation					
Nb. Observations	885	885	885	885	
Nb. Subjects	177	177	177	177	
R^2	0.721	0.723	0.744	0.744	
Adjusted R^2	0.721	0.722	0.743	0.742	

There are no Age or Gender effect on honesty beliefs

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Should be left	0.77*** <i>0.01</i>	0.84*** <i>0.05</i>	1.47*** <i>0.08</i>	1.48*** <i>0.15</i>	1.49*** <i>0.15</i>
Should be left × Risk Aversion (loss)		0.08 <i>0.08</i>			
Should be left × Risk Aversion (gain)		-0.02** <i>0.00</i>	-0.01** <i>0.00</i>	-0.01** <i>0.00</i>	-0.01** <i>0.00</i>
Should be left × Should be left			-0.21*** <i>0.02</i>	-0.21*** <i>0.02</i>	-0.20*** <i>0.02</i>
Should be left × Age				-0.01 <i>0.01</i>	-0.01 <i>0.01</i>
Should be left × Gender (Ref. level : Female)				0.04 <i>0.03</i>	0.04 <i>0.03</i>
Should be left × B's Deviation					-0.02** <i>0.01</i>
Nb. Observations	885	885	885	885	885
Nb. Subjects	177	177	177	177	177
R^2	0.721	0.723	0.744	0.744	0.745
Adjusted R^2	0.721	0.722	0.743	0.742	0.744

A subjects under anticipate B rule violation.

Signif. codes for p-values : 0.01 '***', 0.05 '**', 0.1 '*'

Implications

- ▶ A new metric easy to implement to control honesty effect in many economic relationships
- ▶ Overestimation of honesty can support the presence of inefficient intermediaries such as insurance brokers
- ▶ Distortion of beliefs provides evidence of the importance of environment

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Challenges

- ▶ Investigate relationship between trust and honesty
- ▶ Find new applications outside of the insurance field
- ▶ Improve the study of distortion effect using new variables

New experiment in progress

- ▶ Increase number of observations in particular for honesty behaviors
- ▶ Elicitate beliefs and honesty of a same individual
- ▶ Control order effects (within design)
- ▶ Test new unfavorable and favorable conditions
- ▶ Control hypothetical biases
- ▶ Application to fraud behaviors

Thank you for your attention

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