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

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Motivation

Honesty and beliefs on honesty are central in many economic and social interactions

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

Existing literature and contributions

• Standard trust game of Berg et al. (1995)

 \Rightarrow lacks normative rule and includes money exchange implying inequality aversion and altruism effects. Trust \neq Beliefs on Honesty and Honesty

• Cohn et al. (2015)

 \Rightarrow honesty based on a deviation from a explicit rule

• Galeotti et al. (2017)

 \Rightarrow take into account diversity on players' environment. Nothing about beliefs on honesty

Fischbacher and Follmi-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

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]



Claire Mouminoux (SAF)

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.

		Optio	n A			Option B					
% of chance	Loss	and	% of chance	Loss			% of chance	Loss	and	% of chance	Loss
10 %	60 ECU		90 %	68 ECU	0	۲	10 %	23 EC	U	90 %	98 ECU
20 %	60 ECU		80 %	68 ECU	0	۲	20 %	23 EC	U	80 %	98 ECU
30 %	60 ECU		70 %	68 ECU	0	۲	30 %	23 EC	U	70 %	98 ECU
40 %	60 ECU		60 %	68 ECU	0	0	40 %	23 EC	U	60 %	98 ECU
50 %	60 ECU		50 %	68 ECU	0	0	50 %	23 EC	U	50 %	98 ECU
60 %	60 ECU		40 %	68 ECU	0	۲	60 %	23 EC	U	40 %	98 ECU
70 %	60 ECU		30 %	68 ECU	0	۲	70 %	23 EC	U	30 %	98 ECU
80 %	60 ECU		20 %	68 ECU	0	0	80 %	23 EC	U	20 %	98 ECU
90 %	60 ECU		10 %	68 ECU	0	0	90 %	23 EC	U	10 %	98 ECU
100 %	60 ECU		0 %	68 ECU	0	0	100 %	23 EC	U	0 %	98 ECU

Valide

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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.

Results



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 ammount 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					
Coefficients Std. $error$ Should be left Should be left × Risk Aversion (loss)	Model 1 Model 2 Model 3 Model 4 Model 5 0.77*** 0.01 A subjects believe that B will take 23% more than according to the rule.					
Should be left \times Risk Aversion (gain)						
Should be left \times Should be left						

Should be left \times Age

Should be left \times Gender (Ref. level : Female)

Should be left \times B's Deviation

Nb. Observations	885	
Nb. Subjects	177	
R^2	0.721	
Adjusted R^2	0.721	
CL 10 1 0 1 0 01 (***) 0	·	

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

Explanatory Variable	A's Expectation					
Coefficients Std. error Should be left 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	Model 1 0.77*** 0.01	Model 2 0.84*** 0.05 0.08 0.08 -0.02** 0.00	Model 3 1.47*** 0.08 -0.01** 0.00 -0.21*** 0.02	Model 4 Model 5 •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.		
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			

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

Explanatory Variable	A's Expectation						
Coefficients Std. error	Model 1	Model 2	Model 3	Model 4	Model 5		
Should be left	0.77*** 0.01	0.84^{***}	$1.47^{***}_{0.08}$	1.48*** 0.15			
Should be left \times Risk Aversion (loss)		0.08 0.08					
Should be left \times Risk Aversion (gain)		-0.02^{**}	-0.01^{**}	-0.01^{**}			
Should be left \times Should be left			-0.21***	-0.21*** 0.02			
Should be left \times Age	There a Gender	re no Age effect	or on	0.01 0.04			
Should be left \times Gender (Ref. level : Female) Should be left \times B's Deviation	honesty	beliefs		0.03			
Nh. Observation	005	005	005	005			
Nb. Subjects	885 177	880 177	889 177	889 177			
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Should be left \times Risk Aversion (loss)		0.08 0.08					
Should be left \times Risk Aversion (gain)		-0.02^{**}	-0.01^{**}	-0.01^{**}	-0.01^{**}		
Should be left \times Should be left			$-0.21^{***}_{0.02}$	-0.21*** 0.02	-0.20*** 0.02		
Should be left \times Age	Г			-0.01 0.01	-0.01		
Should be left \times Gender (Ref. level : Female)	A a	A subjects anticipate B	under rule	0.04 0.03	0.04		
Should be left \times B's Deviation	`	violation.			-0.02^{**} 0.01		
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		

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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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