Self-Awareness & Dishonesty

Ceren Bengü Çıbık & Daniel Sgroi

Department of Economics,

University of Warwick

November 2020

Introduction

- Motivated reasoning and self-deception (Benabou & Tirole 2016, Gino et al. 2016).
- What if they fail?
- What happens when individuals become more aware of their own dishonest nature?
- People are motivated to reduce cognitive dissonance.
  - First prediction: Moral balancing $\Rightarrow$ Increased morality.
  - Second prediction: Acceptance/adjustment of beliefs $\Rightarrow$ Decreased morality.
- Which force is more prevalent? Important question in a world increasingly characterised by dishonesty at all levels of society.
- To investigate these and other issues we will present the results of a pre-registered experiment (& analysis plan) involving 1260 subjects recruited through MTurk.

Literature Review

Dishonesty

- Sender Receiver Game: Gneezy (2005) (lying: 36 %, 17%, 52%).
- Matrix Task: Mazar et al. (2008), Shu et al. (2011), Ariely (2012) Control Gr. 3.4, Treatment Gr. 6.1.
- Coin Flip : (Bucciol & Piovesan (2011), Houser et al. (2012), Abeler et al. (2014) 45% favorable outcome , and Cohn et al. (2015)).
- Field Experiments : Yezer et al. (1996), Stoop (2014), Franzen & Pointner (2013), (lost/misdirected letters) and West (2005), Cohn et al. (2019) (wallets found on the street), Pruckner & Sausgruber (2013) newspaper sales on the street.

Cognitive Dissonance and Self-awareness

- Partial liars: Rosenbaum et al. (2014) never cheaters, always cheaters, partial cheat s.t. intrinsic cost.
- Internal rewards Levit (2006), Fischbacher & Föllmi-Heusi (2013), Fudge Factor Theory Ariely (2012), Moral Balancing Ploner & Regner (2013).
- Facing mirror, listening to own-recorded tape Diener & Wallbom (1976).

Self-awareness and Priming

- The method we use follows the self-awareness priming technique in Fenigstein & Levine (1984).
- We are agnostic about how the internal psychological mechanism works: salience, representativeness, "what comes to mind" Gennaioli & Shleifer (2010).

Theoretical Model

- Modification of a simple rational-choice model by Rabin (1994).
- $X \in [0, \infty)$: the level of dishonesty the person engages in.
- $U(X)$: the material utility from the dishonest activity.
- Y: morally acceptable level of dishonesty.
- $D(X - Y)$: the cognitive dissonance suffered because of a dishonest action.
- $C(Y)$: the cost of developing beliefs which are different from the natural, true set of belief about the morality of dishonesty.

$$\max_{X,Y} L(X, Y) = \quad U(X) - D(X - Y) - C(Y)$$

$$\textit{where} \quad X, Y \geq 0; \quad U'(X), D'(X - Y), C'(Y) > 0;$$

$$\textit{and} \quad U''(X) < 0, D''(X - Y), C''(Y) > 0.$$

Implications of the Model

If a person (a) receives lower material utility from engaging in an activity, or (b) it becomes more costly to maintain modified beliefs about the morality of the behaviour, or (c) the greater the distaste for cognitive dissonance, then they should engage in lower levels of the immoral activity.

Experimental Procedure

- Wave 1:
  - Amazon M-Turk, February 2020
  - 892 subjects
    (C: 284, H: 205, LD: 208, HD: 195)
- Wave 2:
  - Amazon M-Turk, July 2020
  - 368 subjects
    (C: 101, H: 76, LD:104, HD: 87)

- Random allocation to the treatments
- Between subject design
- Double blind procedure
- $2 plus a performance related bonus for 25 minutes

Stage 1: Questionnaire

- Demographic questionnaire
- Risk preference: investment in a risky option and engaging in extreme sports
- Fairness: the Ultimatum Game and WVS (beliefs about the fairness of others)
- The Big Five Inventory (Rammstedt & John (2007)) ***
- Integrity and ethics questionnaire ***

Stage 2: Self-Awareness Induction

Write about a real life event in your own life (preferably in the last 12 months) in which you decided to be:

- completely honest (Honesty Treatment)
- not to be completely honest in order to benefit yourself, but where you felt that this dishonesty did not harm anyone else (Low Dishonesty Treatment)
- not to be completely honest in order to benefit yourself, and where this dishonesty ended up harming someone else (a little or lot) (High Dishonesty Treatment)

OR control group that did not engage in any self-awareness induction activity.

Stage 3: Dishonesty Tasks

Wave 1

Sender Receiver Game *

- Matched with another MTurk worker
- Option A and Option B
- Payoffs : only senders
- Dishonest or honest message : senders
- Final action: receivers
- Benefit/cost of lying: \$0.2 and \$2.0

The Matrix Puzzle*

- Find two numbers that add up to 10
- 20 different matrices in 5 minutes
- \$0.10 and \$0.30 per each matrix

Wave 2

Modified Matrix Puzzle *

- Find two numbers that add up to 10
- 20 different matrices in 5 minutes
- Mean preserving payment scheme:
- If top 50% of the distribution \$0.72 and \$2.13

Comparison of Dishonesty Tasks

TABLE 1: Cost of lying among Dishonesty Tasks

	Sender Receiver Game	Matrix Puzzle	Modified Matrix Puzzle
Competitive	Yes	No	Yes
Dishonesty is salient	No	Yes	Yes
Ego-related	No	Yes	Yes
Choice is only your responsibility	No	Yes	Yes

Possible forces that increase the psychological cost of lying (note pre-registration):

- The game is not competitive
- The game is ego related (double cheating)
- Dishonesty is salient.
- The choice is only your responsibility.

$\Rightarrow$ This suggests that lying is psychologically more costly in

- Matrix Puzzle than the SR Game
- Matrix Puzzle than the Modified Matrix Puzzle

Main Hypotheses

1. Self-awareness affects the level of dishonesty. However, the direction is determined by the context.
2. Self-awareness stemming from any of our treatments should result in a decrease in levels of dishonesty in the matrix puzzle game but an increase in levels of dishonesty in the sender-receiver game.
3. We expect participants to incur lower levels of cognitive dissonance from dishonest behaviour in the wave 2 version of the matrix puzzle than in the wave 1 version,therefore they should behave more dishonestly in wave 2.
4. Material incentives play a role in determining the relationship between self-awareness and dishonesty.
5. (Consistency) Those who lie more in one task are likely to lie more in the other.
6. (Moral balancing) Lying more should result in higher donations to charity and/or the researcher.

- Again, note the use of a pre-registered analysis plan to tie our hands.

Results

1. Self-awareness matters: Self-awareness affects the level of dishonesty in the future. Moreover, this impact is largely neutral to the type of self-awareness. ⇒
2. Context matters: Self-awareness (stemming from any of the treatments) leads to a decrease in dishonesty in the matrix puzzle game but also leads to an increase in dishonesty in the sender-receiver game. ⇒
3. The level of dishonesty is higher in Wave 2 than Wave 1 for both control and treatment groups. ⇒
4. Material incentives do not play a significant role in behaviour in the matrix puzzle game but do play a significant role for the sender-receiver game. ⇒
5. A subject who lies in the sender-receiver game is more likely to be a detectable liar in the matrix puzzle game and vice-versa. ⇒
6. Moral balancing argument does not hold in our sample. ⇒

- To the conclusion.

TABLE 2: Mean Value Comparisons of Various Dishonesty Tasks

	Wave 1				Wave 2	
	Matrix Puzzle		**CT Sender Receiver Game**		**Modified Matrix Puzzle**	
	No of matrix reported to be solved		% of people who sent a dishonest message		No of matrix reported to be solved	
	Low Incentive	*High Incentive*	*Low Incentive*	*High Incentive*	*Low Incentive*	*High Incentive*
Mean Values						
Control Group	5.746	5.799	0.394	0.500	7.881	7.059
Honesty Treatment	4.766	4.868	0.576	0.634	5.408	6.053
Low Dishonesty Tr.	4.822	4.827	0.514	0.543	5.712	5.356
High Dishonesty Tr.	5.528	5.487	0.497	0.595	5.138	4.885
Treatment Groups	5.03	5.05	0.530	0.590	5.438	5.401
T-test[1]						
Honesty vs Low Dishonesty	0.9078	0.9302	0.2128	0.0608*	0.6957	0.3547
Honesty vs High Dishonesty	0.1303	0.2248	0.1176	0.421	0.714	0.1201
Low Dishonesty vs High Dishonesty	0.1722	0.1972	0.734	0.2971	0.4261	0.5029
Control vs Treatment	0.053*	0.042**	0.0002***	0.0112**	0.0001***	0.0055***

[1] p-values from a two-tailed t-test are reported. * $p<0.10$, ** $p<0.05$, *** $p<0.01$

Result 1:

Self-awareness affects the level of dishonesty. However, inducing positive or negative self-awareness does not matter.⇐

TABLE 3: Mean Value Comparisons of Various Dishonesty Tasks

	Wave 1				Wave 2	
	Matrix Puzzle		**CT Sender Receiver Game**		**Modified Matrix Puzzle**	
	No of matrix reported to be solved		% of people who sent a dishonest message		No of matrix reported to be solved	
	Low Incentive	*High Incentive*	*Low Incentive*	*High Incentive*	*Low Incentive*	*High Incentive*
Mean Values						
Control Group	5.746	5.799	0.394	0.500	7.881	7.059
Honesty Treatment	4.766	4.868	0.576	0.634	5.408	6.053
Low Dishonesty Tr.	4.822	4.827	0.514	0.543	5.712	5.356
High Dishonesty Tr.	5.528	5.487	0.497	0.595	5.138	4.885
Treatment Groups	5.03	5.05	0.530	0.590	5.438	5.401
T-test[1]						
Honesty vs Low Dishonesty	0.9078	0.9302	0.2128	0.0608*	0.6957	0.3547
Honesty vs High Dishonesty	0.1303	0.2248	0.1176	0.421	0.714	0.1201
Low Dishonesty vs High Dishonesty	0.1722	0.1972	0.734	0.2971	0.4261	0.5029
Control vs Treatment	0.053*	0.042**	0.0002***	0.0112**	0.0001***	0.0055***

[1] p-values from a two-tailed t-test are reported. * $p<0.10$, ** $p<0.05$, *** $p<0.01$

TABLE 4: Regression Analysis

	Matrix Puzzle		Sender Receiver Game	
	(1)	(2)	(3)	(4)
VARIABLES	Model 1	Model 2	Model 1	Model 2
Treatment	-2.051***	-1.932***	0.113***	0.108***
	[0.601]	[0.609]	[0.0304]	[0.0306]
Wave 1	-1.840***	-1.558**	-	-
	[0.626]	[0.628]		
Treatment x Wave 1	1.319*	1.279*	-	-
	[0.700]	[0.703]		
High Incentive	-0.253	-0.256	0.0758***	0.0773***
	[0.196]	[0.197]	[0.0172]	[0.0174]
High Incentive x Wave 1	0.285	0.293	-	-
	[0.223]	[0.224]		
Constant	7.597***	8.003***	-	-
	[0.545]	[1.641]		
Observations	2,520	2,512	1,784	1,778
R-squared	0.016	0.040	0.0121	0.0252
Control Variables	✗	✓	✗	✓

Result 2:

There is a decrease in dishonesty in the matrix puzzle game whereas there is an increase in dishonesty in the sender-receiver game. ⇐

TABLE 5: Regression Analysis

	Matrix Puzzle		Sender Receiver Game	
	(1)	(2)	(3)	(4)
VARIABLES	Model 1	Model 2	Model 1	Model 2
Treatment	-2.051***	-1.932***	0.113***	0.108***
	[0.601]	[0.609]	[0.0304]	[0.0306]
Wave 1	-1.840***	-1.558**	-	-
	[0.626]	[0.628]		
Treatment x Wave 1	1.319*	1.279*	-	-
	[0.700]	[0.703]		
High Incentive	-0.253	-0.256	0.0758***	0.0773***
	[0.196]	[0.197]	[0.0172]	[0.0174]
High Incentive x Wave 1	0.285	0.293	-	-
	[0.223]	[0.224]		
Constant	7.597***	8.003***	-	-
	[0.545]	[1.641]		
Observations	2,520	2,512	1,784	1,778
R-squared	0.016	0.040	0.0121	0.0252
Control Variables	✗	✓	✗	✓

Result 3:

The level of dishonesty is higher in Wave 2 than Wave 1 for both control and treatment groups.⇐

TABLE 6: Regression Analysis

	Matrix Puzzle		Sender Receiver Game	
	(1)	(2)	(3)	(4)
VARIABLES	Model 1	Model 2	Model 1	Model 2
Treatment	-2.051***	-1.932***	0.113***	0.108***
	[0.601]	[0.609]	[0.0304]	[0.0306]
Wave 1	-1.840***	-1.558**	-	-
	[0.626]	[0.628]		
Treatment x Wave 1	1.319*	1.279*	-	-
	[0.700]	[0.703]		
High Incentive	-0.253	-0.256	0.0758***	0.0773***
	[0.196]	[0.197]	[0.0172]	[0.0174]
High Incentive x Wave 1	0.285	0.293	-	-
	[0.223]	[0.224]		
Constant	7.597***	8.003***	-	-
	[0.545]	[1.641]		
Observations	2,520	2,512	1,784	1,778
R-squared	0.016	0.040	0.0121	0.0252
Control Variables	✗	✓	✗	✓

Result 4:

Material incentive does not matter for the matrix puzzle game whereas it matters for the sender-receiver game. ⇐

Concluding Remarks

- Self-awareness matters.
- Context matters: if a game is psychologically more costly then the level of dishonesty is lower.
- We identify criteria linked to competition and ego-relevance which help us predict how context matters.
- Could be generalized to many different domains such as politicians (votes), celebrities (fame), unscrupulous sales staff (sales), etc.
- Moral balancing seems less important than we might think.
- Finally, could this all be an experimental demand effect? Our evidence suggests not: subjects were systematically wrong when asked what they thought the effect of the prime would be and what they thought we thought the effect would be. There is also very little evidence of reciprocity through donations to the researcher.

Matrix Puzzle

1.69	1.82	2.91	0.46	0.53	1.88	0.49	0.74	1.17	0.47	4.58	2.57
4.67	4.81	3.05	6.13	5.11	3.42	3.72	2.00	1.22	3.15	3.82	4.38
5.82	5.06	4.28	7.05	5.43	4.15	3.75	5.22	5.67	4.94	5.42	5.98
6.36	5.19	4.57	7.15	5.76	4.77	8.83	8.23	7.70	2.95	4.86	7.54
0.13	0.24	0.41	0.81	1.31	2.09	0.17	2.46	2.44	0.46	1.98	2.38
2.81	1.86	1.20	4.55	3.75	3.19	6.02	5.60	2.63	0.48	1.79	2.48
3.33	3.46	4.07	5.62	9.41	6.81	6.05	6.21	6.60	0.58	1.69	2.59
5.67	5.46	5.18	7.02	8.48	8.51	8.22	8.19	7.54	1.85	0.98	2.94
0.06	5.07	5.39	0.85	1.62	1.63	0.15	0.95	1.31	0.63	0.65	1.02
1.71	0.03	8.98	6.06	5.63	1.69	4.98	2.90	2.88	2.64	2.34	2.12
2.10	4.96	9.42	6.25	5.01	1.73	6.66	6.73	7.67	2.89	5.98	8.89
4.53	4.65	9.92	6.36	3.16	1.91	9.75	9.85	8.17	9.49	9.37	9.33
0.14	0.15	0.32	0.84	1.54	7.28	0.77	1.47	1.69	0.63	0.74	2.23
5.51	5.68	0.52	4.42	3.54	7.18	3.38	3.18	2.28	8.05	7.68	3.71
5.48	6.15	0.84	5.54	4.78	5.55	3.62	3.01	2.48	8.31	7.06	4.51
5.28	3.31	1.17	6.99	6.93	6.76	3.68	2.93	2.53	8.45	6.44	5.29
0.12	0.71	0.74	0.74	1.93	2.76	0.14	0.67	2.22	0.20	2.54	2.80
4.27	3.07	2.27	7.24	5.03	3.12	5.96	5.58	5.22	1.05	2.39	2.96
5.09	5.73	5.82	7.71	6.38	3.80	7.04	7.59	9.33	1.44	2.28	3.00
9.27	7.03	6.79	8.28	9.18	9.48	9.77	9.50	8.52	1.73	2.19	3.85

Go back

Sender Receiver Game

Sender Screen:

Which message would you send if the two payment options were:

Task 1: Option A: $1 to you and $1.2 to the other player. Option B: $1.2 to you and $1 to the other player.
Task 2: Option A: $1 to you and $3 to the other player. Option B: $3 to you and $1 to the other player.

i) Message 1 : "Option A will earn you more money than option B."
ii) Message 2: "Option B will earn you more money than option A."

Receiver Screen

What would your choice be if your counterpart's message to you was "Option A will earn you more money than Option B." ?

What would your choice be if your counterpart's message to you was "Option B will earn you more money than Option A." ?

Go back

Ethics and Integrity Questionnaire

Ethics Questionnaire

Which of these things, if any, have you done in the past 12 months?
i) Avoided a fare on public transport
ii) Made something up on a job application
iii) Downloaded music or videos without paying for them
iv) Called in sick to work/ to school when not actually unwell Go back - Design

Integrity questionnaire

	Always justified	Sometimes justified	Rarely justified	Never justified
Claiming government benefits to which you are not entitled	○	○	○	○
Buying something which you know it is stolen	○	○	○	○
Taking cannabis	○	○	○	○
Keeping money that you found in the street	○	○	○	○
Lying in your own interest	○	○	○	○
Having an affair when you are married	○	○	○	○
Having sex under the legal age of consent	○	○	○	○
Failing to report accidental damage you have done to a parked vehicle	○	○	○	○
Throwing away litter in a public place	○	○	○	○
In order for us to check you are reading instructions, please select "Always justified" for this statement.	○	○	○	○
Driving under the influence of alcohol	○	○	○	○
Avoiding a fare on public transport	○	○	○	○
Cheating on taxes if you have a chance	○	○	○	○
Someone accepting a bribe in the course of their duties	○	○	○	○
Driving faster than the speed limit	○	○	○	○
Making up things on a job application	○	○	○	○

Go back

A Brief Version of the Big Five Inventory

Please indicate how well do the following statements describe your personality.

I see myself as someone who...

	Disagree strongly	Disagree a little	Neither agree nor disagree	Agree a little	Agree strongly
is reserved	○	○	○	○	○
is generally trusting	○	○	○	○	○
tends to be lazy	○	○	○	○	○
is relaxed, handles stress well	○	○	○	○	○
has few artistic interests	○	○	○	○	○
is outgoing, sociable	○	○	○	○	○
tends to find fault with others	○	○	○	○	○
does a thorough job	○	○	○	○	○
gets nervous easily	○	○	○	○	○
has an active imagination	○	○	○	○	○
In order for us to check you are reading instructions, please select "Agree a little" for this statement.	○	○	○	○	○

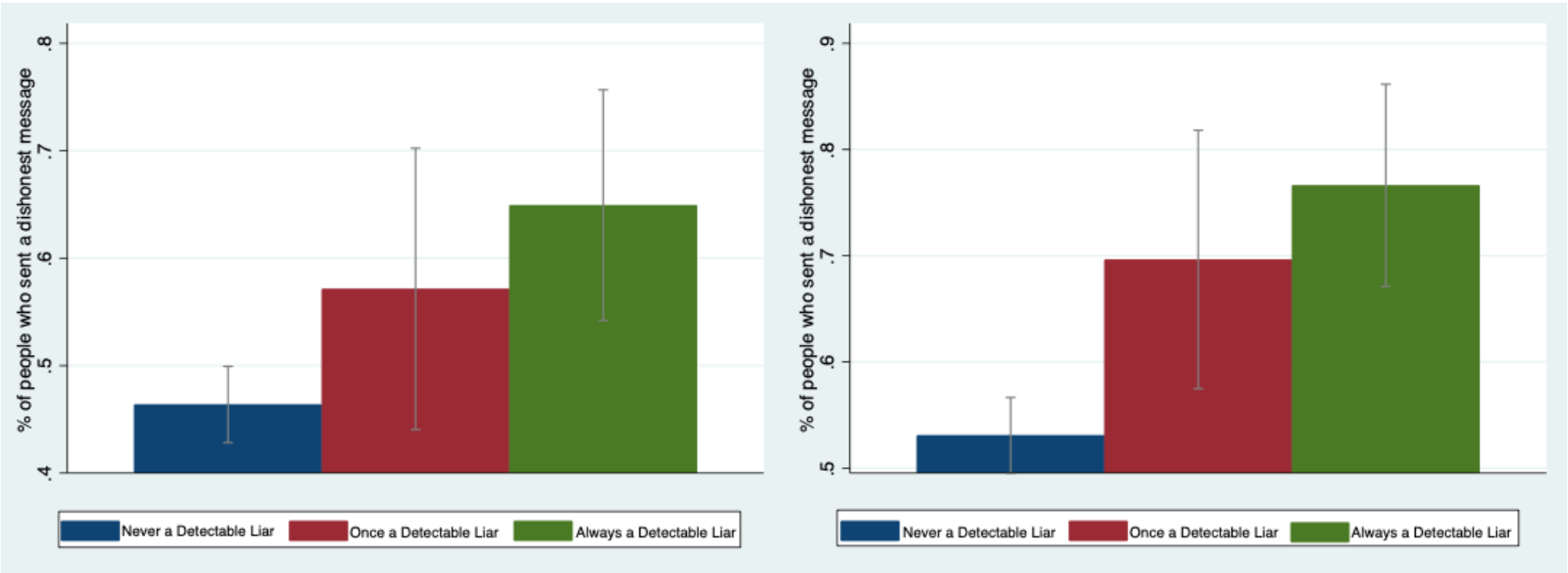
Go back

Descriptive Statistics

TABLE 7: Descriptive Statistics

	Wave 1				Wave 2			
	Control		**Treatment**		**Control**		**Treatment**	
	Mean	Std.Dev.	Mean	Std.Dev.	Mean	Std.Dev.	Mean	Std.Dev.
Demographic Variables								
Age	38.15	11.66	38.89	12.05	36.78	10.05	36.72	10.60
Female	0.44	0.50	0.45	0.50	0.34	0.47	0.48	0.50
American	0.98	0.14	0.97	0.17	0.91	0.29	0.99	0.09
College degree or more	0.63	0.48	0.59	0.49	0.80	0.40	0.71	0.45
Married	0.60	0.49	0.49	0.50	0.76	0.43	0.50	0.50
Other Variables								
Amount to put in safe option	0.57	0.39	0.56	0.36	0.66	0.56	0.58	0.35
Engaging in extreme sports	0.10	0.15	0.07	0.13	0.23	0.20	0.09	0.13
Amount to keep for yourself (UG)	0.54	0.19	0.55	0.21	0.55	0.22	0.54	0.18
BFI-Extraversion	0.28	0.17	0.28	0.18	0.30	0.14	0.29	0.18
BFI-Conscientiousness	0.48	0.15	0.50	0.15	0.41	0.15	0.49	0.15
BFI-Openness	0.43	0.16	0.46	0.15	0.37	0.13	0.45	0.17
BFI-Agreeableness	0.40	0.16	0.42	0.16	0.39	0.14	0.43	0.16
BFI-Neuroticism	0.29	0.18	0.26	0.19	0.30	0.14	0.27	0.19
People take advantage of others?	0.53	0.24	0.51	0.22	0.63	0.24	0.52	0.22
Integrity score	0.42	0.11	0.44	0.09	0.35	0.13	0.42	0.10
Ethic score	0.67	0.31	0.74	0.28	0.44	0.34	0.71	0.31
Donation to charity (%)	19.32	24.86	13.11	23.02	33.30	21.62	15.36	23.11
Donation to researcher (%)	16.20	23.55	9.30	19.58	31.05	21.16	12.46	20.30
Observations	284		608		101		267	

	Sender-Receiver Game		
	(1) Never Lied	(2) Lied Once	(3) Always Lied
Dishonesty Variables			
No of matrix (Low Inc.)	4.583	5.183	5.9***
Detectable Liars % (Low Inc.)	7.82	9.36	16.86***
No of matrix (High Inc.)	4.547	5.306*	5.931***
Detectable Liars % (High Inc.)	5.54	11.49**	17.43***



Result 5:

A subject who lies in the sender-receiver game is more likely to be a detectable liar in the matrix puzzle game and vice-versa.⇐

Moral Balancing

TABLE 8: Who are the Liars?

	Sender-Receiver Game		
	(1) Never Lied	(2) Lied Once	(3) Always Lied
Personality Variables			
BFI-Extraversion	0.261	0.296**	0.281
BFI-Conscienciousness	0.488	0.488	0.512**
BFI-Neuroticsm	0.284	0.276	0.258*
BFI-Agreeableness	0.419	0.426	0.405
BFI-Openness	0.460	0.435*	0.448
Other Survey Variables			
Ethic Score	0.742	0.689**	0.716
Integrity Score	0.446	0.432	0.434
People take advantage	0.555	0.508**	0.481***
Amount to put in risky option	0.398	0.471**	0.447*
Extreme Sports	0.074	0.082	0.080
Amount to keep in UG	0.509	0.534	0.583***
Donation to charity	0.189	0.178	0.100***
Donation to researcher	0.148	0.132	0.075***
No of observation	307	235	350

Mean values are represented in the table. A two-sided t-test is used where Column 2 and Column 3 are compared with Column 1, seperately.
* p<0.10, ** p<0.05 , *** p<0.01

Result 6:

Moral balancing argument does not hold in our sample. ⇐

TABLE 9: Mean Value Comparison of Various Dishonesty Tasks across Waves

	Control Group			**Treatment Groups**		
	Mean Values		p-value[1]	Mean Values		p-value[1]
	Wave 1	*Wave 2*		*Wave 1*	*Wave 2*	
No of matrix reported	5.77	7.47	0.0024***	5.04	5.42	0.137
Complete Liars	0.136	0.208	0.028**	0.109	0.112	0.444
No of observation	284	101		608	267	

[1] p-values from a one-tailed t-test are reported. * p<0.10, ** p<0.05 , *** p<0.01

TABLE 10: Wave 1 - Rerun Sample

	Control Group	**Treatment Group**
No of matrix (low)	6.77	6.39
No of matrix (high)	6.46	5.11
Proportion of dishonest message (low)	0.54	0.21
Proportion of dishonest message (high)	0.77	0.43
No of observation	13	28

Demand Effect

TABLE 11: Mean Value Comparisons of Demand Effect Variables

	Wave 1		Wave 2	
	Your Expectation	*Researcher's Expectation*	*Your Expectation*	*Researcher's Expectation*
Mean Values				
Control Group	59.736	65.866	73.703	82.307
Honesty Treatment	53.18	67.273	54.842	61.961
Low Dishonesty Tr.	56.317	67.736	60.260	67.740
High Dishonesty Tr.	54.856	60.344	56.851	67.207
Treatment Group	54.791	65.209	57.607	65.921
T-test[1]				
Control Group		0.001***		0.000***
Treatment Group		0.000***		0.000***

[1] p-values from a two-tailed t-test are reported where the null hypothesis is Researcher's Expectation=Subject's Expectation. * p<0.10, ** p<0.05 , *** p<0.01 ⇐

- All numbers above 50% which indicates an expectation of more honest behaviour after treatment.
- Increase in dishonesty in the sender-receiver game and inconsistent behaviour across tasks.
- Researcher's Expectation > Subject's Expectation.
- No altruism toward researcher: donations made to the researchers is lower for people who lied more.

References

Abeler, J., Becker, A. & Falk, A. (2014), 'Truth-telling: A representative assessment', *Journal of Public Economics* **113**, 96–104.

Ariely, D. (2012), *The (Honest) Truth about Dishonesty: How we lie to everyone - especially ourselves*, Harper, New York.

Benabou, R. & Tirole, J. (2016), 'Mindful economics: The production, consumption, and value of beliefs', *Journal of Economic Perspectives* **30 (3)**, 141–164.

Bucciol, A. & Piovesan, M. (2011), 'Luck or cheating? a field experiment on honesty with children', *Journal of Economic Psychology* **32**, 73–78.

Cohn, A., Marechal, M. A. & Noll, T. (2015), 'Bad boys: How criminal identity salience affects rule violation', *The Review of Economic Studies* **82(4)**, 1289–1308.

Cohn, A., Marechal, M. A., Tannenbaum, D. & Zünd, C. L. (2019), 'Civic honesty around the globe', *Science* **365**, 70–73.

Diener, E. & Wallbom, M. (1976), 'Effects of self-awareness on antinormative behavior', *Journal of Research in Personality* **10**, 107–111.

Fenigstein, A. & Levine, M. P. (1984), 'Self-attention, concept activation and the causal self', *Journal of Experimental Social Psychology* **20(3)**, 231–245.

Fischbacher, U. & Föllmi-Heusi, F. (2013), 'Lies in disguise: An experimental study on cheating', *Journal of European Economic Association* **11**, 525–547.

Franzen, A. & Pointner, S. (2013), 'The external validity of giving in the dictator game: A field experiment using the misdirected letter technique', *Experimental Economics* **16**, 155–169.

Gennaioli, N. & Shleifer, A. (2010), 'What comes to mind', *Quarterly Journal of Economics* **125**(4), 1399–1433.

Gino, F., Norton, M. I. & Weber, R. A. (2016), 'Motivated bayesians: Feeling moral while acting egoistically', *Journal of Economic Perspectives* **30 (3)**, 189–212.

Gneezy, U. (2005), 'Deception: The role of consequences', *American Economic Review*