

Would I Lie To You? On Social Preferences and Lying Aversion

Trudie Yeh, Hung-Yi Chen



**Would
I lie?**

Introduction

- It is by now fairly well-established that people are motivated not just by material self-interest, but also by “social” goals (e.g. Fehr and Schmidt, 1999; Andreoni and Miller, 2002).
- Also important is that a person’s preferences may have a procedural component: how allocations come to be can matter above and beyond just what the allocations are (Sen, 1997).
- A prominent example is Gneezy’s (2005) experimental study of aversion to lying.

The Gneezy Experiments

- Result: “People not only care about their own gain from lying; they also are sensitive to the harm that lying may cause the other side.”
- Gneezy compares people’s behavior in two different settings: deception game and dictator game.

Deception game

Allocation



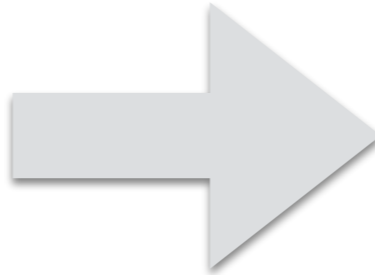
socially-minded



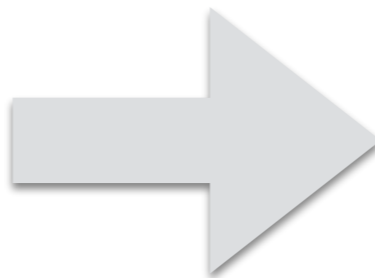
selfish

Dictator game

Allocation



socially-minded



selfish

The Gneezy Experiments

2 Players



sender



receiver

know the monetary payoff

The Gneezy Experiments

2 outcomes

A

option **A** gives a lower monetary payoff to the **sender**



sender



B

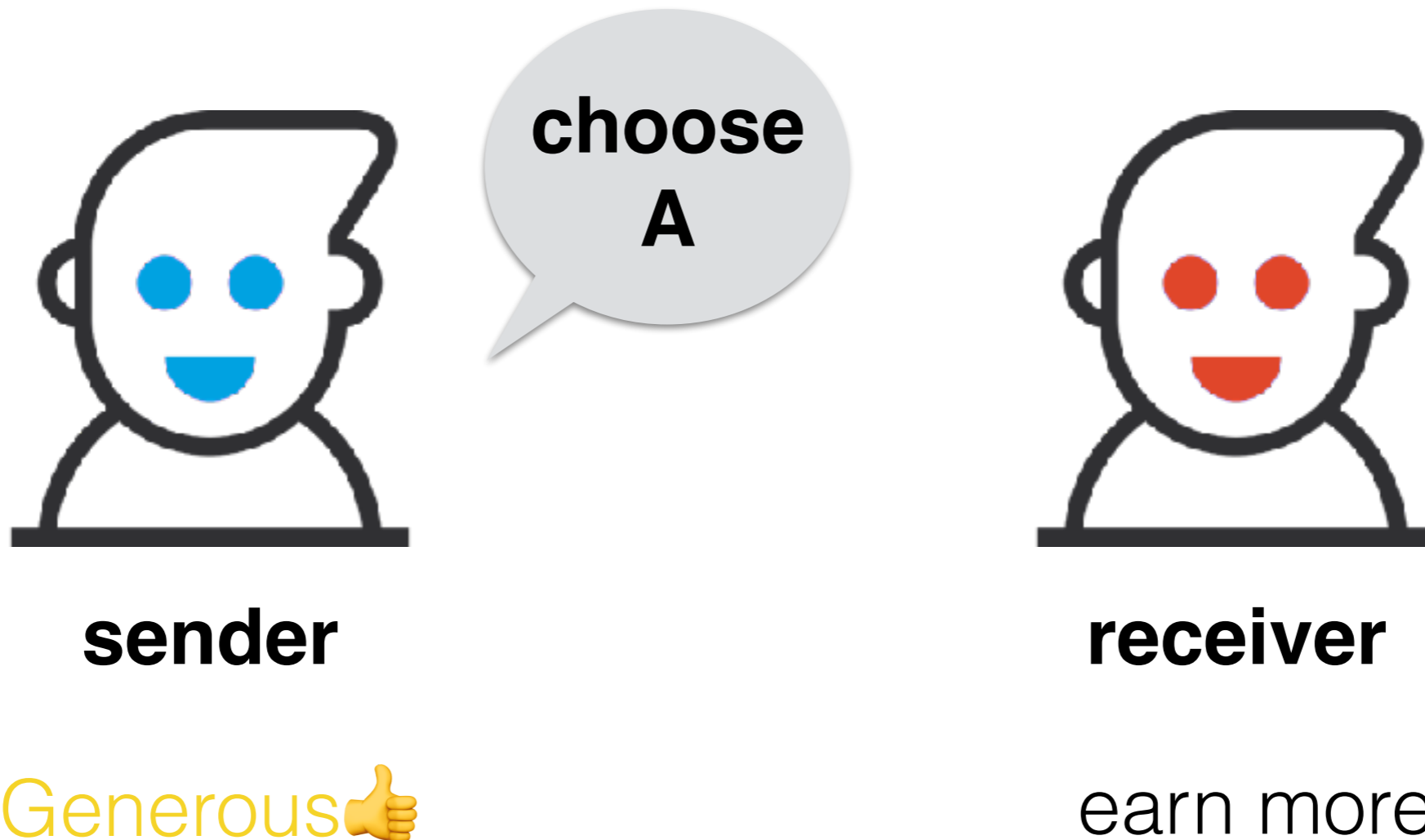
option **B** gives a lower monetary payoff to the **receiver**



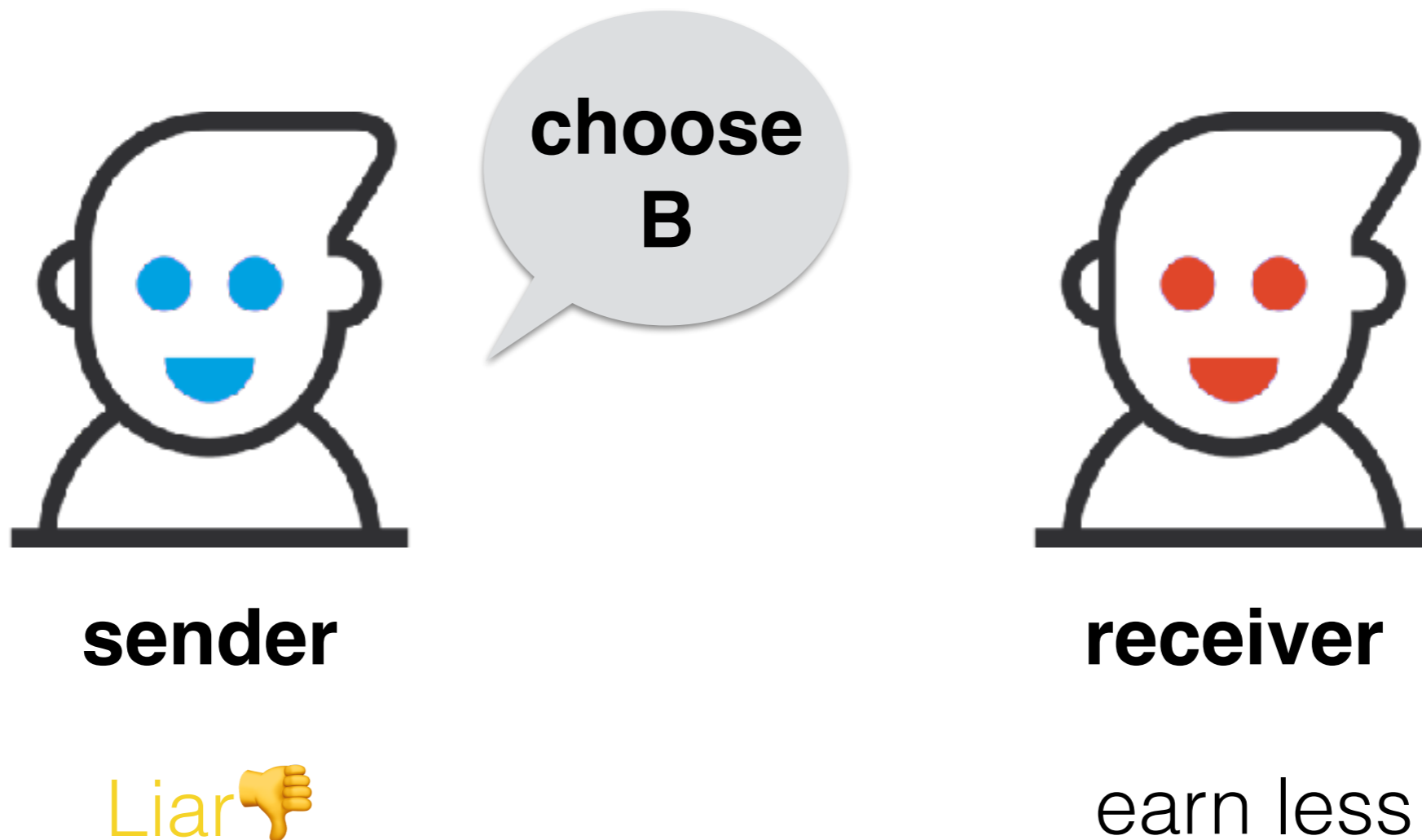
receiver



The Gneezy Experiments



The Gneezy Experiments



The Gneezy Experiments

3 Treatments: different monetary allocations

#1

A



sender

5



receiver

6

B



sender

6



receiver

5



The Gneezy Experiments

3 Treatments

#2

A



sender

5



receiver

15

B



sender

6



receiver

5



The Gneezy Experiments

3 Treatments

#3

A



sender

5



receiver

15

B



sender

15



receiver

5



The Gneezy Experiments

Treatment	#1	#2	#3
Deception	0.36	0.17	0.52
Dictator	0.66	0.42	0.90

Liar 🖐️



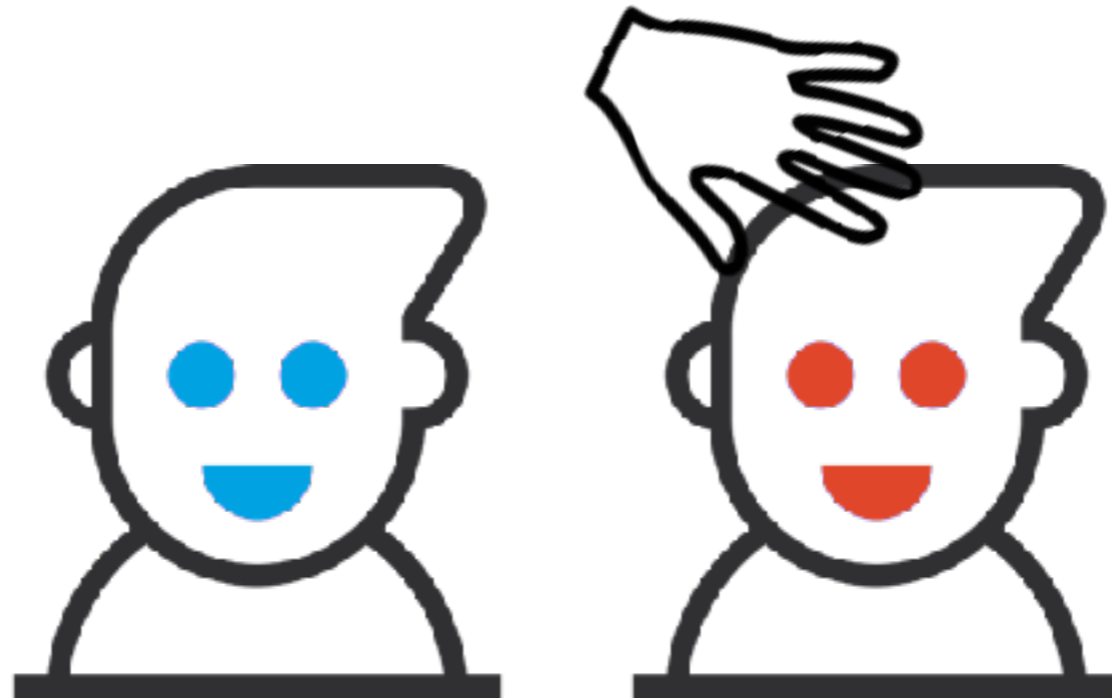
sender

choose
B

The Gneezy Experiments

- The differences between the proportions in the Deception row are statistically significant
- The differences between the proportions in the Dictator row are statistically significant.
- For each treatment $i = 1, 2, 3$ the difference between the proportions of subjects choosing option B_i in the deception game and the dictator game is statistically significant

main empirical finding-



“people not only care about their own gain from lying; they also are sensitive to the harm that lying may cause the other side.”

The Gneezy Experiments

Treatment	#1	#2	#3
Deception	0.36	0.17	0.52
Dictator	0.66	0.42	0.90

- This conclusion is drawn by comparing the percentage of liars across the three deception game treatments.
- This implies that Gneezy's conclusion is only warranted to the extent that people's social preferences influence whether they actually prefer the outcome from lying relative to truth-telling, independent of any aversion to lying.
- Conditional on preferring the outcome from lying, a person may be completely insensitive to how much he gains or how much his partner loses from the lie.

Conditional Probabilities of Lying

- Hypothesis: some fraction of the population will say anything—be it the truth or a lie—to obtain their preferred outcome.
- If the Hypothesis in the introduction is correct, then there should be no significant difference across treatments of this ratio.
- p_i denote the fraction of liars in treatment i .
- q_i denote the percentage of selfish people in treatment i
- Assume that the subjects for each treatment of either game were drawn randomly from the same population distribution.
- the ratio p_i/q_i is therefore an estimate of the fraction of people who lie conditional on having an incentive to do so.

Conditional Probabilities of Lying

The estimated conditional probabilities of lying when having an incentive to do so.

Treatment		#1	#2	#3
Deception	p_i	0.36	0.17	0.52
Dictator	q_i	0.66	0.42	0.90
Conditional probability	p_i/q_i	0.545	0.413	0.578

Conditional Probabilities of Lying

- At the 10 percent level, one cannot reject the hypothesis that the conditional probabilities of lying in treatment 1 is no different from the conditional probability of lying in treatments 2 and 3.
- It suggest that the the Hypothesis may be incorrect: given that a person has an incentive to lie, the person is more likely to do so when her own monetary gain is bigger and when the monetary harm caused to the opponent is smaller.

New data about subjects

- At University Autonoma Barcelona in Spain.
- College students from various disciplines.
- No subject was allowed to participate in more than one session.
- Written instructions in Spanish; English translations are available on the Journal's website.

New Data

5 Differences between Gneezy's experiment.

New Data

1

We had all subjects play both the deception game and the dictator game

New Data

2

Gneezy adapted the dictator game so that the choice of the dictator was only implemented with probability 80%.

New Data

3

Conducted the experiment using the *strategy method*.

Direct response method

telling them what the message sent by player one(sender) is and asking them to pick an option based on it

Strategy method

asking them to indicate which option they would pick contingent on each of the two possible messages from sender.

New Data

4

Asked **all subjects** in the role of **sender** in the deception game to **indicate their beliefs** about what their partner would do.

New Data

5

Conducted **2** different treatments.

The New Experiments

2 Treatments

#4

A



sender

4



receiver

12

B



sender

5



receiver

4



The New Experiments

2 Treatments

#5

A



sender

4



receiver

5

B



sender

12



receiver

4



New Data

Treatment	#4	#5
Selfish and Liar	19	14
Selfish and Truth	25	16
Generous and Liar	3	1
Generous and Truth	11	1
Total	58	32

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Total	58	32

1

Selfish subjects :

#2 $21/50 = 42\%$

#4 $44/58 = 76\%$

#5 $30/32 = 94\%$

Treatment	#4	#5
Selfish and Liar	19	14
Selfish and Truth	25	16
Generous and Liar	3	1
Generous and Truth	11	1
Total	58	32

2

Selfish (fractions of liars)

#4 $19/44 = 43\%$

#5 $14/30 = 47\%$

Behavior of receivers

66% followed the recommendation in our experiment.

V.S.

78% followed the recommendation in Gneezy's

3

Less recommendation following

Treatment	Trust	Unsure	Invert
#4	27	11	20
#5	11	11	10

Conclusion

- Gneezy shows that people are more likely to lie when **they can gain more and partner loses less.**
- Gneezy's data tell us that the change in lying behavior as payoff distributions are varied can be explained entirely **by preferences over material payoffs.**

Conclusion

- In this paper, we found that our subjects in Spain are **less willing to follow the recommendations** they receive. Instead, **recommendations are often ignored or even inverted.**
- We cannot ascertain whether these differences are because of any fundamental subject-pool differences, or because of differences in experimental designs.

Questions

- Will a generous person lie to his partner when he expects not to be trusted?
- Is there a correlation between standard social preferences against lying?

Thank you