"Naming and shaming" of individuals and teams in a public goods experiment

Astrid Dannenberg (University of Kassel)

Joint work with Sven Christens (University of Kassel)
and Florian Sachs (University of Magdeburg)

Definitions

- <u>Naming and shaming</u>: Identification of players in a public goods game (name and photo of all players along with their contributions).

- <u>Shame</u>: Negative emotions elicited by the violation of a social norm and negative information reaching others.

- Why not <u>guilt</u>? Guilt is more often associated with unobserved violations of personal values (rather than social values).

- There is a debate among psychologists about whether the difference between shame and guilt lies in the <u>public exposure</u> or the <u>focus of self-blame</u>. Some theories hold that, in shame, the *<u>self</u>* is the central object of the negative evaluation while, in guilt, it is an *<u>action</u>*. According to these theories, guilt is adaptive but shame is not (Tangney and Dearing, 2004).

- Here, we follow the approach according to which shame is adaptive.

- The "information threat theory of shame" holds that shame has evolved to deter individuals from courses of action that would cause social devaluation (Sznycer et al., 2012).

- Critical features calibrating feelings of shame are the <u>benefits</u> of a transgression and the <u>likelihood</u> and <u>cost</u> of damaging information spreading.

- Shame can thus help individuals to refrain from making choices where the prospective cost of social devaluation exceeds the benefits.

Research question

- "Naming and shaming" has been shown to increase cooperation among individuals – but does this also hold for groups?

- Why is that important? Many economic, financial, and political decisions are made by groups, and not individuals (e.g. households, firms, governments, delegation teams, nongovernmental organizations, or unions).

- Groups have been shown to behave differently than individuals.

- Examples where "naming and shaming" of groups is used to improve cooperation:
  - Country ratings and rankings in the context of human rights, poverty reduction, or environmental performance.
  - Publication of countries' emission reduction targets as important part of climate policy.

The New York Times By CORAL DAVENPORT   DEC. 12, 2015

Nations Approve Landmark Climate Accord in Paris

"So the individual countries' plans are voluntary, but the legal requirements that they publicly monitor, verify and report what they are doing, as well as publicly put forth updated plans, are designed to create a "name-and-shame" system of global peer pressure, in hopes that countries will not want to be seen as international laggards."

Previous literature on shame

- Experienced or induced shame can motivate pro-social behavior in prisoners' dilemma and ultimatum games (Ketelaar and Au, 2003; De Hooge et al., 2008).

- Anticipated shame improves cooperation in public goods games.
  - Identification of players (Rege and Telle, 2004; Andreoni and Petrie, 2004; Samek and Sheremeta, 2014).
  - Feedback among players (Masclet et al., 2003; López-Pérez and Vorsatz, 2010).

- Shame proneness is greater when the social environment or own social resources make it difficult to form new relationships (Sznycer et al., 2012).

- Intensity of shame people feel regarding a given transgression closely tracks the devaluation that would happen if the transgression became known (Sznycer et al., 2016).

# Previous literature on group behavior

- Anonymity and diffusion of responsibility within a group leads to less restrained and more impulsive and aggressive behavior (Festinger et al., 1952; Zimbardo, 1969).

- The likelihood of a person to help in an emergency case is lower when there are other people around, the "bystander effect" (Darley and Latané, 1968; Latané and Nida, 1981)

- Groups show more competitive behavior in prisoners' dilemma games than individuals, the "interindividual-intergroup discontinuity effect" (Insko and Schopler, 1998; Wildschut et al., 2003).

- Groups learn more quickly, make more sophisticated and payoff-oriented decisions, and are less influenced by cognitive limitations, behavioral biases, and social considerations (Charness and Sutter, 2012; Kugler et al., 2012).

- Only one public goods experiment which shows that groups contribute more and punish less than individuals (Auerswald et al., 2013).

Experimental design

- Four-player linear public goods game,

- Players are either individuals or teams of four persons each,

- Payoff of player i: $\pi_i = 100 - g_i + 0.4 \sum_{j=1}^{n} g_j$

- Team payoffs are shared equally among the members.
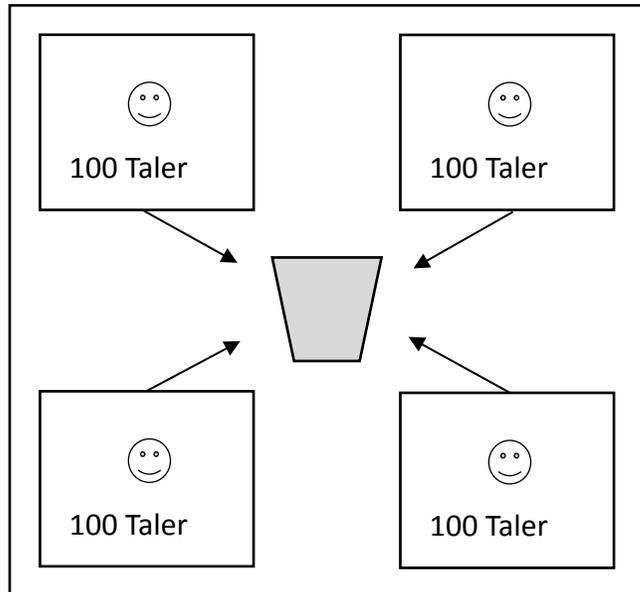
100 Taler = 1 Euro
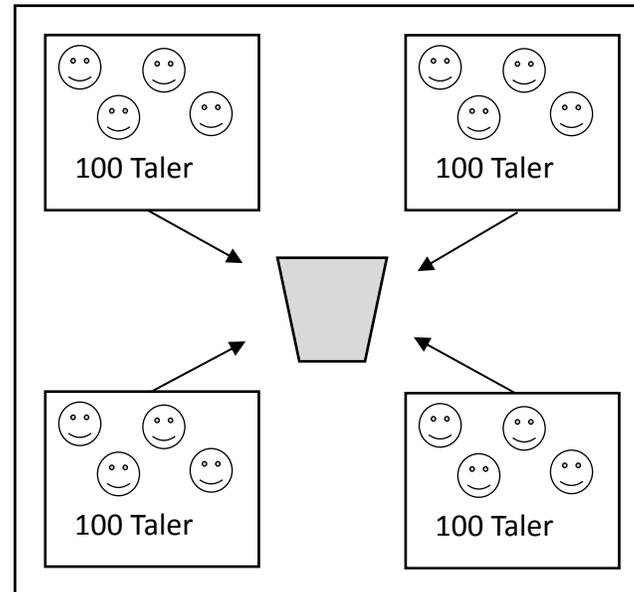
100 Taler = 4 Euros

$$NE: g_i = 0$$

$$FC: g_i = 100$$

Four treatments

	No identification	Identification
Individuals	*Indi-NoPic*	*Indi-Pic*
Teams	*Team-NoPic*	*Team-Pic*

Outcome screen

| Position	Beiträge	Auszahlungen
#1	90 Taler	88.00 Taler
#2	60 Taler	118.00 Taler
#3	30 Taler	148.00 Taler
#4	15 Taler	163.00 Taler

Hypothesis

- Teams react less sensitively to the disclosure of identities than individuals.
  - Shame-proneness is less relevant and influential for groups than for individuals.
  - Groups have different expectations about other groups than individuals have about other individuals.

**Procedure for *Team-Pic* treatment**

1. Upon arrival, subjects draw number, teams are formed randomly.

2. Photo is taken and teams are brought to separate rooms.

3. Ex-ante questions are answered individually (incl. question about shame-proneness).

4. Distribution of instructions, control questions are answered individually.

5. Estimation of how long the members of the other teams will inspect the outcome screen on average.

6. Ten rounds of public goods game:

    - Face-to-face discussion within teams.

    - Each team members has to type the same contribution into the computer.

    - After all teams have made the contribution decision, contributions with photos are shown.

7. Ex-post questions are answered individually.

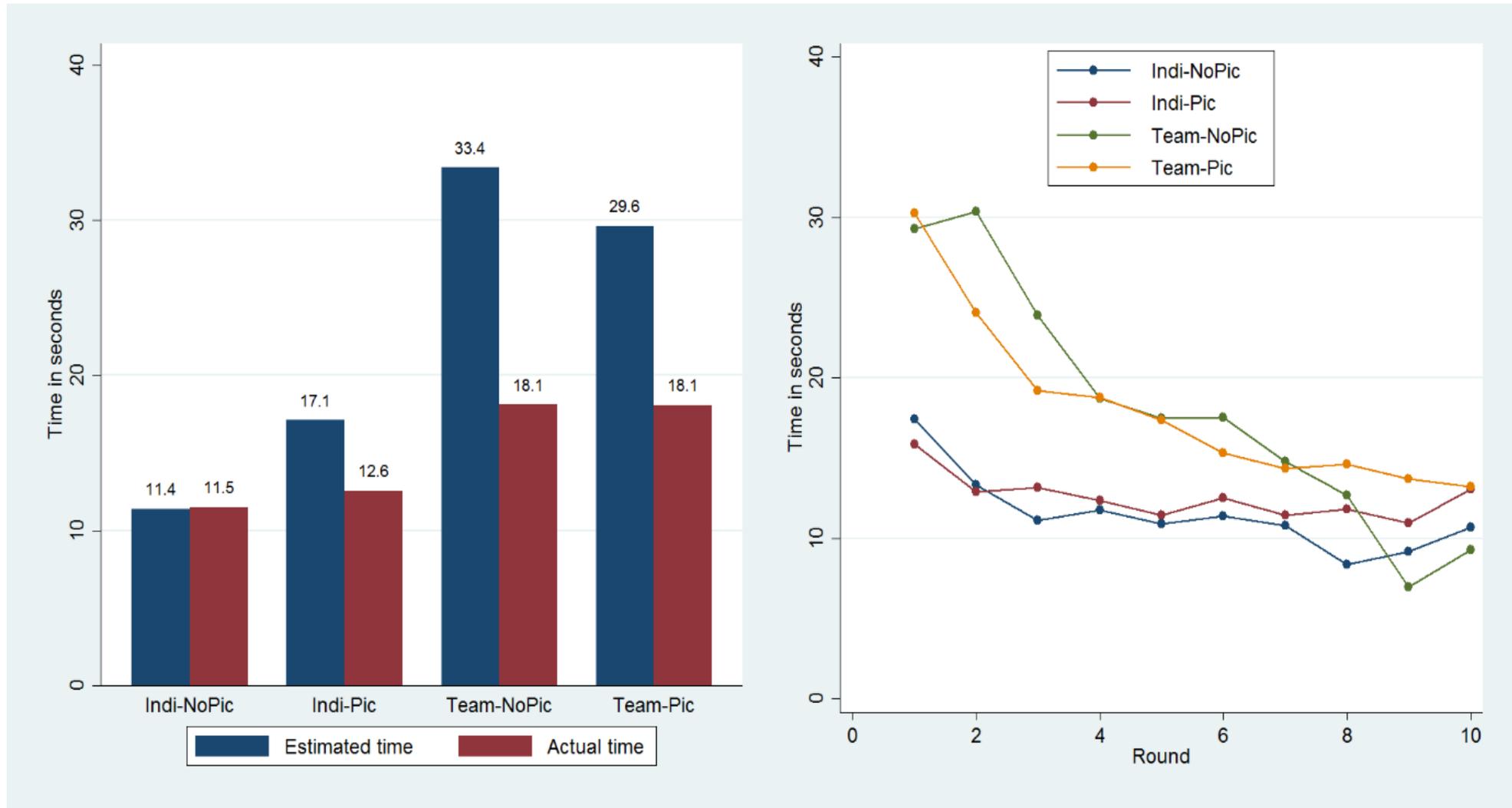8. Teams are paid separately and leave the lab one by one.

Results
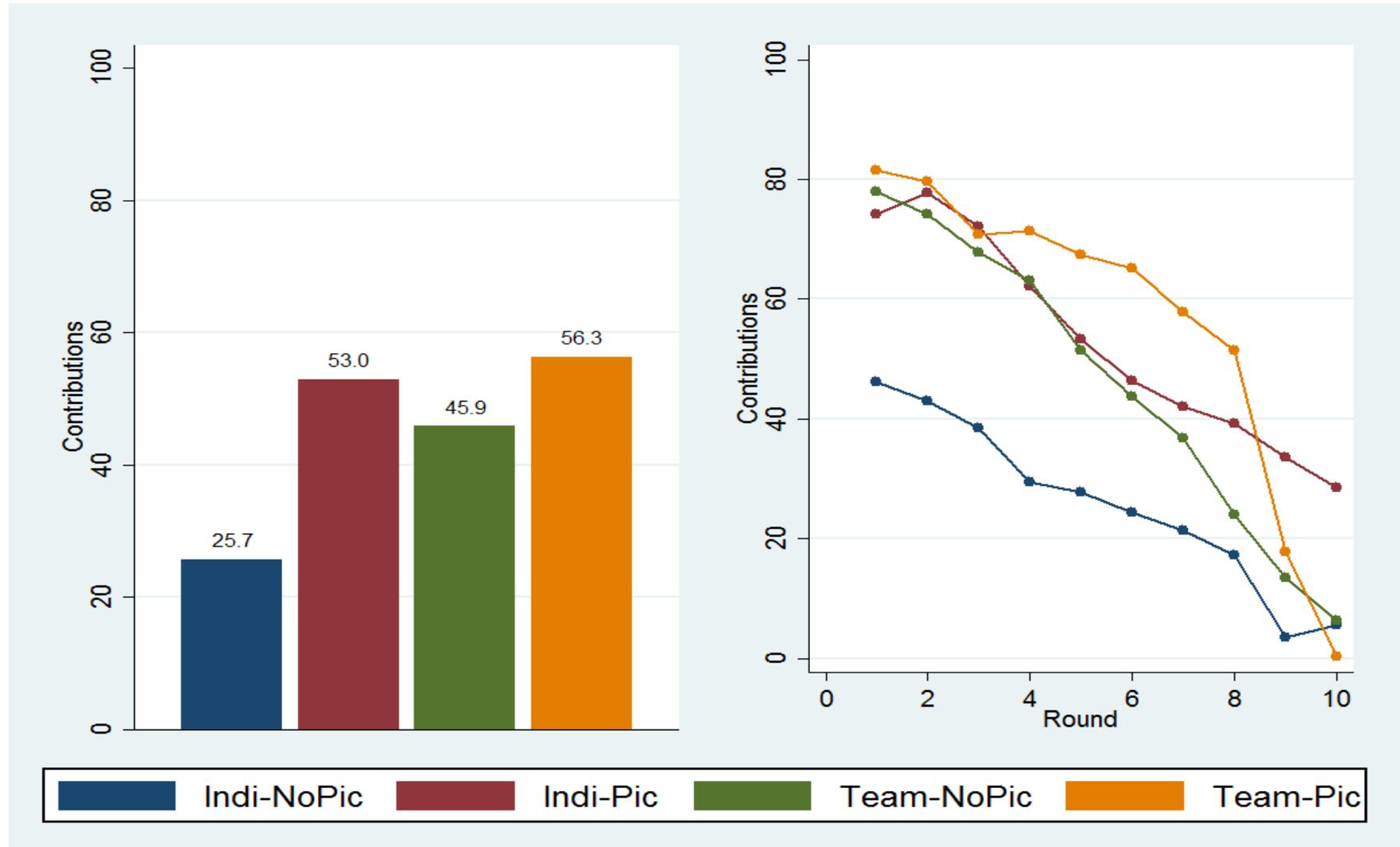
- Teams react less sensitively than individuals to disclosure of identities (hypothesis confirmed)
- Teams contribute more than individuals in the anonymous game.
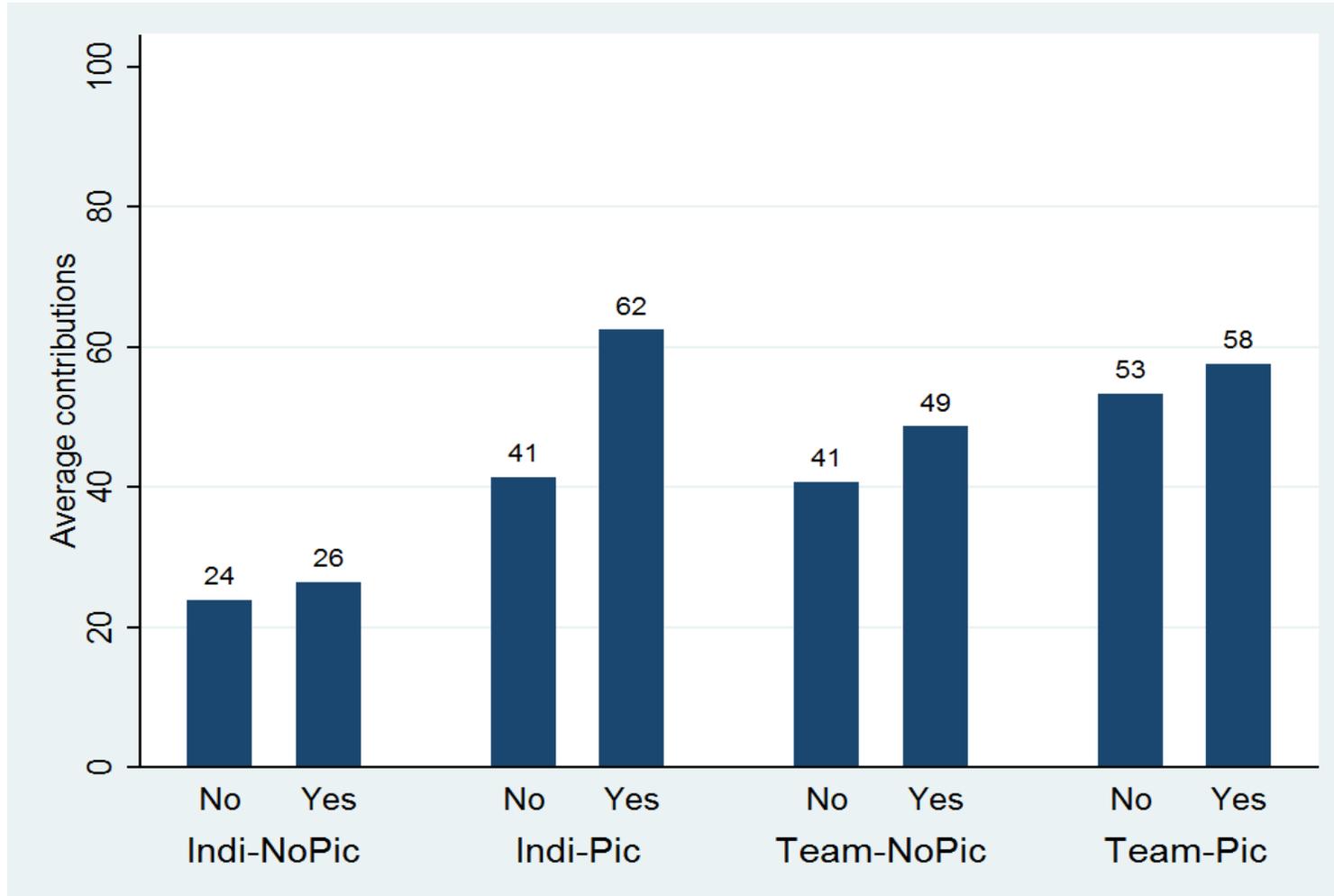
Results
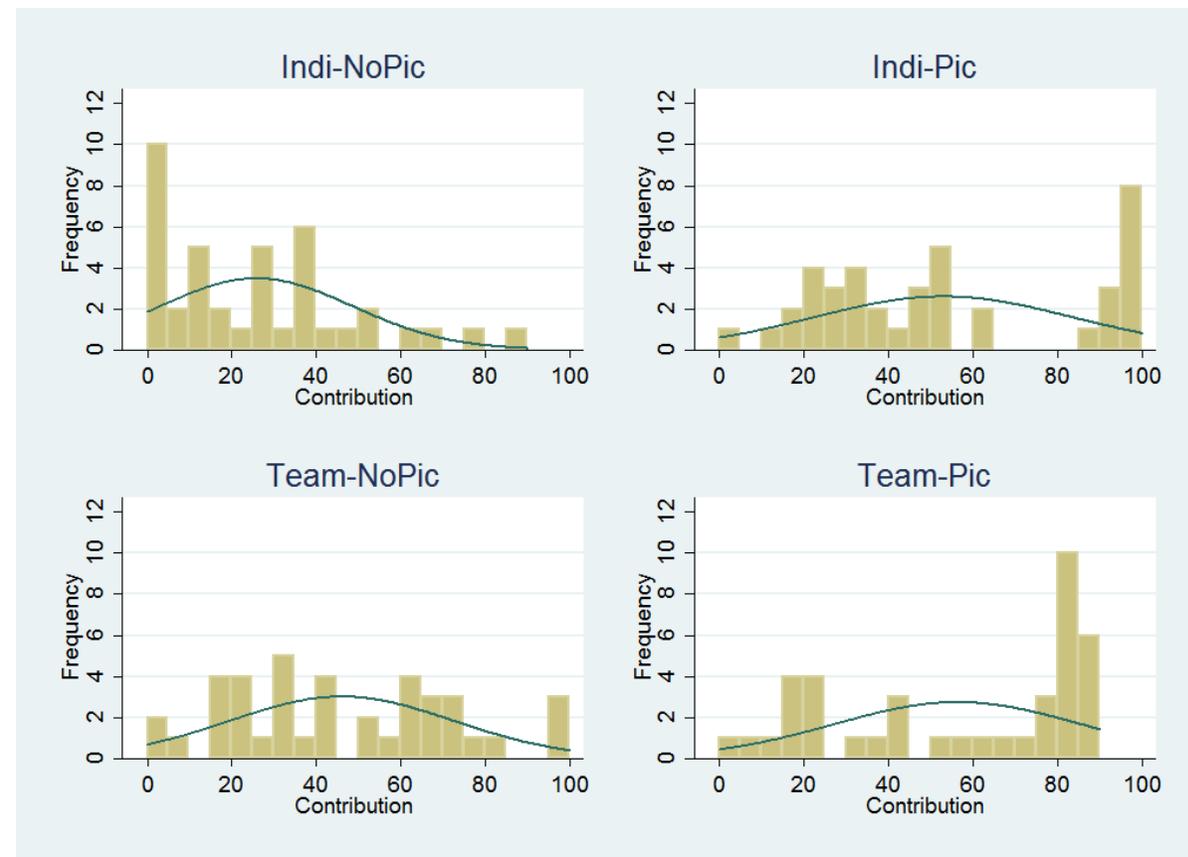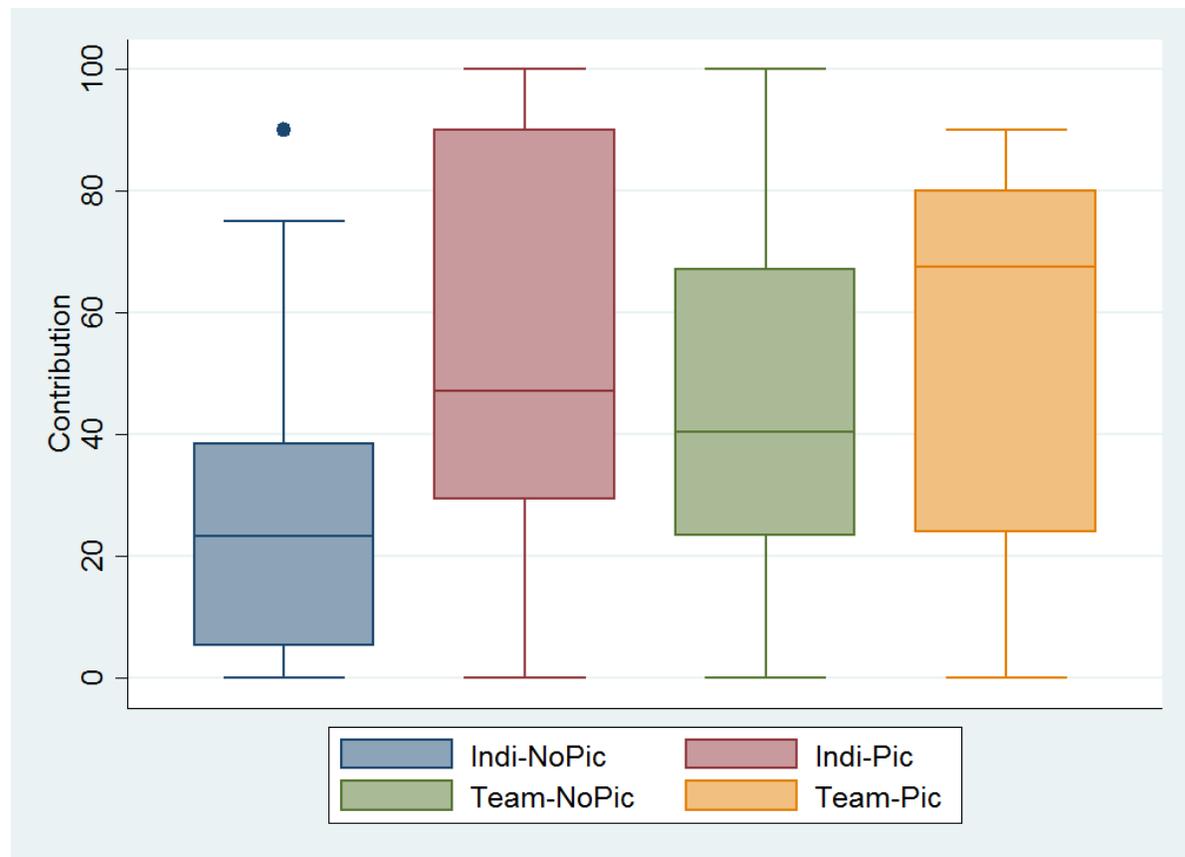
Distribution of individual / team contributions across rounds

Estimated and actual inspection of outcome screens

- Teams inspect the outcome screens longer.
- Individuals expect longer inspection time when identities are revealed – teams do not.

Importance of others' options (shame proneness)

Ex-ante question to measure shame-proneness:

How important is it for you what other people think of you?

Possible answers ranged from 1 (not at all) to 10 (very much).

- Difference between shame-prone and non-shame-prone individuals highest in *Indi-Pic*.
- Increase in contributions of shame-prone individuals due to disclosure of identities higher for individuals than for teams.

Importance of others' options (shame proneness)

	Own contribution *Indi-NoPic*	Own contribution *Indi-Pic*	Own contribution *Team-NoPic*	Own contribution *Team-Pic*
Round	-1.698***	-2.063***	-2.511**	-3.382***
	(0.592)	(0.561)	(1.082)	(1.043)
Others lagged contribution	0.213***	0.232***	0.257***	0.290***
	(0.0262)	(0.0252)	(0.0204)	(0.00784)
Trust (d)	2.462	16.39***	5.636	0.796
	(5.473)	(5.953)	(5.349)	(2.862)
Others opinions (d)	2.317	13.77**	2.855	0.382
	(3.356)	(6.058)	(3.364)	(3.721)
Constant	12.69**	6.795	12.61	18.71**
	(6.377)	(5.558)	(11.29)	(8.070)
Observations	360	360	360	360

Random effects panel regression with clustering of standard errors at the meta-group level. Numbers are marginal effects, standard errors in parentheses; significance levels: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

- Shame-proneness has a significant effect in *Indi-Pic*, but not in *Team-Pic*.
- The same is true for trustfulness.

Importance of other people's opinions
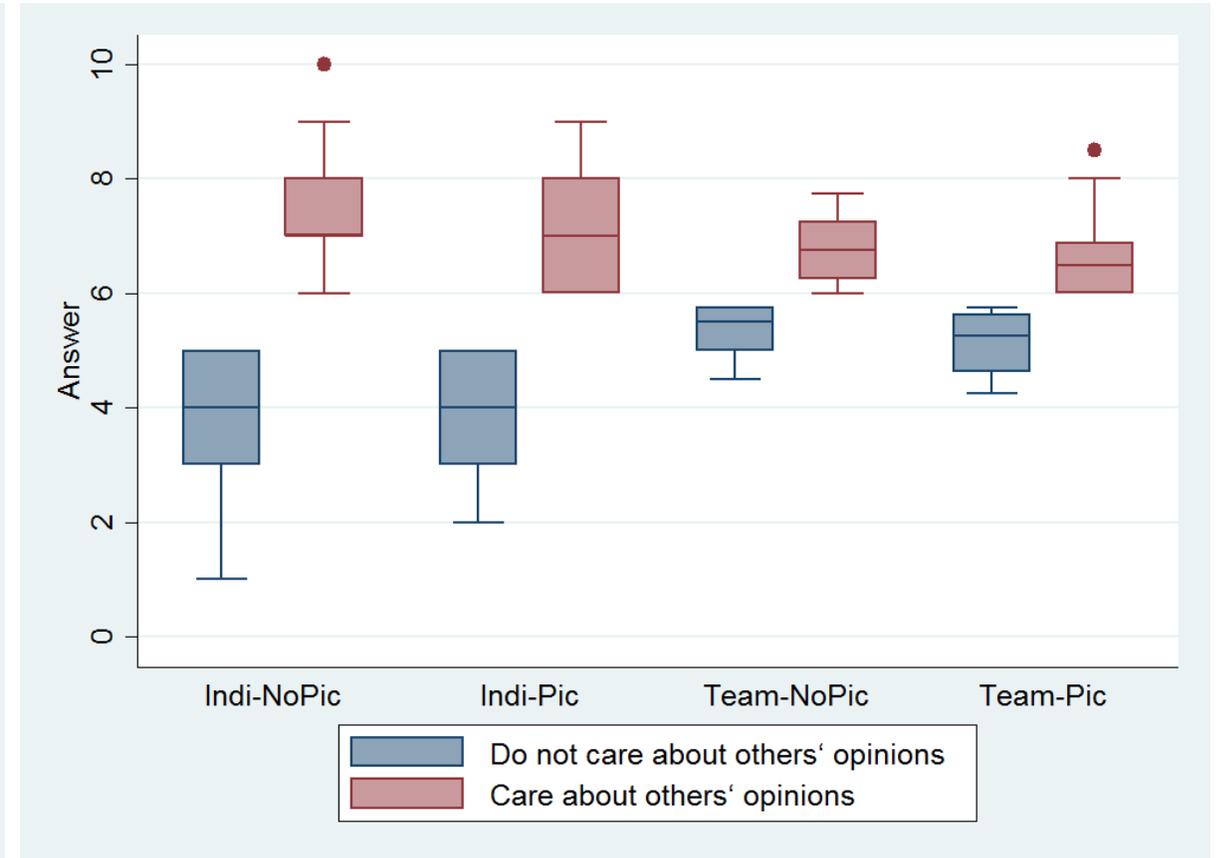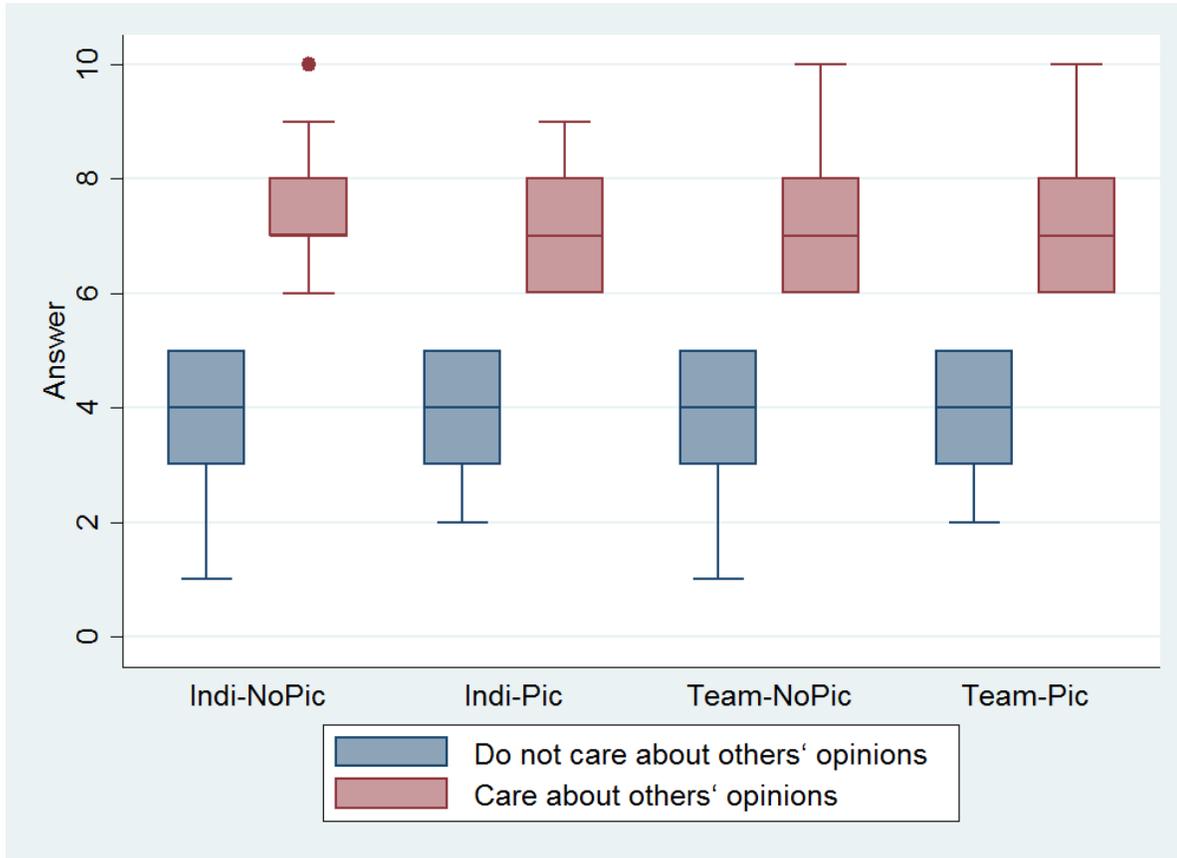
The box plots present the median as the middle line in the box. The squares indicate the 25th and the 75th percentile (upper and lower quantiles), such that 50% of the values are inside the colored box (25% below and 25% above the median). The lines outside the box show the adjacents. The two adjacents indicate the most extreme observations that are no outliers.

Some results from the ex-post questionnaire

- Subjects in the team treatments were generally satisfied with their team and agreed with the final decisions. They felt to a high degree involved in the decision making process.

- They felt more obliged towards their own team than the other teams.

- When asked about the version of the game which they did <u>not</u> play (anonymous versus identification), subjects generally show a low willingness to play the other version.

- When asked if they knew another player or a person in another team, 5% in *Indi-Pic* and 23% in *Team-Pic* answered this question positively. Knowing someone tends to increase contributions in team treatments (but the effect is small and, if anything, makes our result stronger).

Summary and conclusions

- The anonymous game with individuals is the outlier among our treatments and produces the lowest cooperation.

- We confirms previous findings that identification and the mere suspicion of others' disapproval is an incentive for individuals to behave more socially oriented.

  - In particular shame-prone individuals who care about other people's opinions make higher contributions when identities are revealed.

  - When identities are kept private, there is no significant difference between shame-prone and non-shame-prone individuals.

  - Same for trustfulness. Individuals who consider others as trustworthy contribute higher amounts to the public good than those who do not, but only when identities are revealed.

Summary and conclusions

- Under anonymous conditions, groups contribute more than individuals.

- Especially at the beginning of the game when it is not yet clear what the other players will do, groups appear to be more willing to risk a high contribution.

  - Perhaps because members are reluctant to propose a selfish strategy within their group.

  - Groups may be better able to anticipate the negative effect this strategy has on others' willingness to cooperate.

- However, groups' contributions decrease quickly and, by the final round, the difference between groups and individuals has vanished.

Summary and conclusions

- The disclosure of identities has no significant effect on cooperation among groups. Thus, naming and shaming does not work for groups in the way it works for individuals.

  - Shame proneness is less influential in groups. There is no significant difference between groups in which members care about others' opinions and groups in which members do not care so much, whether or not identities are revealed.

  - Groups do not expect the disclosure of the photos to make a difference in the inspection of the outcome. (Speculation: groups may focus more on the outcome itself rather than who caused it.)

Outlook and future research

- Different forms of communication within teams (computer chat).

- Different decision rules within teams (majority voting, group representative).

- Mixing individuals and teams.