Guilt Aversion and Moral Commitment: Eve versus Adam

Giovanni Di Bartolomeo   Martin Dufwenberg

Stefano Papa   Laura Razzolini
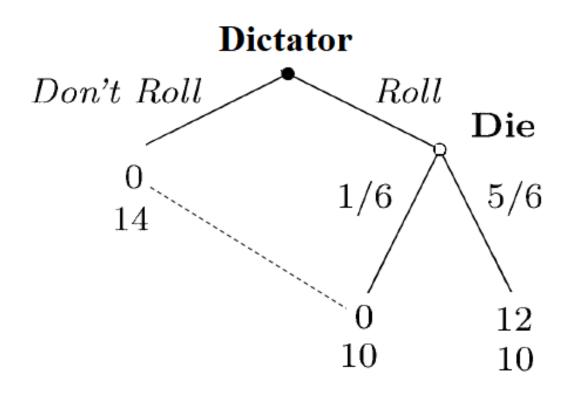
ESA North American Meeting, Columbus, Ohio

Motivation

- We explore gender differences in individuals' motivations.We focus on **Guilt Aversion** and **Moral Commitment.**

- Based on early paper by Gary and Martin (2006), "Promises and partnership" in *Econometrica*
  - GA can help explain trustworthy behavior in the lab.

Random Dictator Game (Vanberg 2008)

Two-players dictator game augmented with a) bilateral pre-play communication, b) random roles and asymmetric information, c) a partner-switching mechanism.

Experimental Design: Step 1 Communication

1. Participants are randomly matched in pairs. Each pair can communicate by sending messages. The subjects know they will play a random-dictator game, but still do not know who will act in which role. Subjects can make promises about their behavior if they are chosen to be dictator. Each chat consisted of four one-way messages. Each message could be of at most 90 characters and was catalogued as involving a promise or not.

Experimental Design: Step 2 Role assignment & Revelation of switching probability

2. After the communication phase, each player is assigned the dictator or recipient role. Before the allocation decision, a given proportion of dictators have their partners switched. Both players know the proportion of switched pairs, but only dictators are informed of the switch. The switching probability was either 25% (low) or 75% (high).

Experimental Design: Step 3 Beliefs Elicitation

3. This stage has two parts:

   a. FOBs: Recipients were asked to guess their expected payoff (whether the dictator would roll or not)

   b. SOBs: dictators were asked to guess the payoff expected by their recipient.

Experimental Design: Step 4 Switch

4. Depending on the treatment, 25% or 75% of recipients are switched. Only dictators were informed whether a switch occurred. Dictators with switched recipients were allowed to read the prior conversation (sent by another dictator) of their new recipient.

Experimental Design: Step 5 Dictator Game

5. Dictators choose between *Roll* and *Don't Roll*. All subjects are informed of their payoff. Recipients were not told whether they were switched and could not infer the dictator's choice when their payoff was zero.

Research Questions:

1a. Are men's and women's SOBs different, for any switching probability?

1b. For both genders involved in a promise, are SOBs higher when the switching probability is low?

1c. For both genders involved in a promise, do SOBs change in the same direction when the switching probability changes?

Research Questions:

2. **Guilt Aversion**: Are switched dictators more likely to *Roll* when the switching probability is low?

We will test this for each gender.

3. **Guilt Aversion Sensitivity**

Research Questions:

4. **Moral Commitment**: Are non-switched dictators more likely to *Roll* than switched dictators who read a promise?

We will test this for each gender and each switching probability.

- 5. **Moral Commitment Sensitivity**

Experiment

- Run @ CIMEO Experimental Economics Lab in Rome La Sapienza
- 12 sessions of 8 rounds, 32 subjects per session
- Total # Subjects 384
- Perfect stranger matching
- One round randomly chosen for payment

Results

- 3,072 messages were classified according to Vanberg's protocol.
- 2,240 messages contained a promise.
- Promise rate of men and women is not different:

  71% vs 75% (Z=0.47, p=0.63800)

- Γ-Dictators are dictators involved in a promise

Results

Table 1 – SOBs of Γ-Dictators

Treatment	Switching Probability	Women (a)	Men (b)
(i)	25% (low)	**0.73**	**0.76**
		(0.34/266)	(0.27/251)
(ii)	75% (high)	**0.66**	**0.62**
		(0.35/229)	(0.35/234)

For any switching probability, there is no difference in SOBs between men and women:

76% vs 73% (Z=1.26, p=0.209)
62% vs 66% (Z=0.16, p=0.875)

Results

Table 1 – SOBs of Γ-Dictators

Treatment	Switching Probability	Women (a)	Men (b)
(i)	25% (low)	**0.73**	**0.76**
		(0.34/266)	(0.27/251)
(ii)	75% (high)	**0.66**	**0.62**
		(0.35/229)	(0.35/234)

Γ-Dictators have higher SOBs when switching probability is low, no difference across genders:

73% vs 66% (Z=2.04, p=0.020)

76% vs 62% (Z=3.06, p=0.001)

Results

Table 1 – SOBs of Γ-Dictators

TREATMENT	SWITCHING PROBABILITY	Women	Men
		(a)	(b)
(i)	25% (low)	**0.73**	**0.76**
		(0.34/266)	(0.27/251)
(ii)	75% (high)	**0.66**	**0.62**
		(0.35/229)	(0.35/234)

The change in SOBs when the switching probability changes is not different across genders:
0.73 – 0.66 = 0.07 vs 0.76 – 0.62% = 0.14 (Z=1.17, p=0.239)

Results

1a. Are men's and women's SOBs different, for any switching probability? **No difference**

1b. For both genders involved in a promise, are SOBs higher when the switching probability is low? **YES**

1c. For both genders involved in a promise, do SOBs change in the same direction when the switching probability changes? **YES**

Results

Table 2 – Roll rates of Γ-Dictators

TREATMENT	SWITCHING PROBABILITY	Women	Men
		SWITCH (a)	SWITCH (b)
(i)	25% (low) [high SOBs]	**0.33**	**0.50**
		(0.34/266)	(0.27/251)
(ii)	75% (high) [low SOBs]	**0.35**	**0.27**
		(0.35/229)	(0.35/234)

Avg Roll rate of men is significantly higher when probability of switch is low, while for women there is no difference:
50% vs 27% (Z=2.24, p=0.013)
33% vs 35% (Z=-0.20, p=0.422)

Results

Table 2 – Roll rates of Γ-Dictators

TREATMENT	SWITCHING PROBABILITY	Women	Men
		SWITCH (a)	SWITCH (b)
(i)	25% (low) [high SOBs]	**0.33**	**0.50**
		(0.34/266)	(0.27/251)
(ii)	75% (high) [low SOBs]	**0.35**	**0.27**
		(0.35/229)	(0.35/234)

The change in roll rates when the switching probability changes is different across genders:

0.33 – 0.35 = -0.02 < 0.50 – 0.27% = 0.23 (Z=1.73, p=0.084)

Results

2. **Guilt Aversion**: Are switched dictators more likely to *Roll* when the switching probability is low? **Men switched Dictators are more likely to roll than women. GA drives men's behavior to a greater extent than women.**

3. **Guilt Aversion Sensitivity:** Are male and female switched dictators equally likely to roll when the switching probability is low (high SOBs)? **NO. Men are more sensitive.**

Results

Table 3 – Roll rates of Γ-Dictators

TREATMENT	SWITCHING PROBABILITY	Women		Men	
		SWITCH (a)	NO-SWITCH (b)	SWITCH (c)	NO-SWITCH (d)
(i)	25% (low) [high SOBs]	0.33	0.52	0.50	0.53
		(0.48/45)	(0.50/221)	(0.51/46)	(0.50/205)
(ii)	75% (high) [low SOBs]	0.35	0.56	0.27	0.60
		(0.48/161)	(0.50/68)	(0.44/161)	(0.49/73)

Compare by gender and by switching probability the roll rates of switched and non-switched Γ-Dictators involved in a promise:

Results

Table 3 – Roll rates of Γ-Dictators

		Women		Men	
TREATMENT	SWITCHING PROBABILITY	SWITCH (a)	NO-SWITCH (b)	SWITCH (c)	NO-SWITCH (d)
(i)	25% (low) [high SOBs]	0.33	0.52	0.50	0.53
		(0.48/45)	(0.50/221)	(0.51/46)	(0.50/205)
(ii)	75% (high) [low SOBs]	0.35	0.56	0.27	0.60
		(0.48/161)	(0.50/68)	(0.44/161)	(0.49/73)

- Roll rates of women are higher when not switched, for men this holds only when switching probability is high.
- No difference for women for any switching probability. Men are more sensitive when switching probability is high.

Results

4. **Moral Commitment**: Are non-switched dictators more likely to *Roll* than switched dictators who read a promise?

Switched Dictators are more likely to roll than non-switched. MC drives women's behavior to a greater extent than men.

5. **Moral Commitment Sensitivity:** Are male and female switched dictators equally likely to roll when the switching probability is low (high SOBs)? **Women are sensitive to MC independently of the switching probability, men are sensitive only when probability is high.**

Conclusions

- We explored GA and MC motivations in a random dictator game with pre-play communication.

- Kleinknecht's (2019) also studied gender differences in same context, with same switching probabilities. She did not find support for GA and no differences in MC across genders.

- We expand upon Kleinknecht's (2019) adding two different switching probabilities as in Di Bartolomeo *et al*. (2019). This allow to test separately for MC and GA within and between genders.

Conclusions

- Our experimental results support the idea that MC drives women's behavior more than men's and that men are more GA than women.

- Emotions, such as guilt, may affect men and women differently if the games they play cast the sexes in asymmetric roles.

- Gender differences could be domain specific.

QUESTIONS???

Ask my co-authors in the audience!