

Expectations and Gender Differences in Altruism

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Woman seems to differ from man in mental disposition, chiefly in her greater tenderness and less selfishness . . . Man . . . delights in competition, and this leads to ambition which passes too easily into selfishness.

— Charles Darwin, The Descent of Man (1871)

Question

Are there robust gender differences in giving behavior when people can choose to give knowing that they might also receive?

Roadmap

- Dictator Games Over (Almost) Random Networks
- Price of Giving
- Conventional Wisdom About Gender Differences
- Controlling Expectations
- Bye-Bye Gender Differences!

Secret Santa Dictator Game

You have been invited to a Secret Santa Party with $2n$ people

- Every person **buys** a gift not costing more than M for exactly one other person
- Every person **receives** a gift from exactly one other person
- Receivers don't find out who their Givers are
- No 2-person Giver–Receiver cycles

This is a Dictator Game over an (almost) random network

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How Much of M To Spend? Two Components

Suppose you have a *ceteris paribus* Preference for giving some amount of M

But you also have an Expectation of getting some amount of someone else's M

Then you might update your Preference in view of your Expectation

~> E.g., if you think everyone else is going to buy Boggle, you might not want to spend very much of your M

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And A Third: The Price of Giving (PoG)

Suppose Dictator has M and chooses to Hold X and Pass Y

- α is the Hold Value

- Dictator's Payoff = αX at price $p_D = \frac{1}{\alpha}$

- β is the Pass Value

- Recipient's Payoff = βY at price $p_R = \frac{1}{\beta}$

Relative Price of Giving \rightsquigarrow PoG = $\frac{p_R}{p_D}$

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If Price of Giving = 1 ...

Females are more generous than Males

- Eckel & Grossman (1998)
- Selten & Ockenfels (1998)
- Rigdon, *et al.* (2008)

↪ Results are from **standard** Dictator Games (non-networked)

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What If Price of Giving $\neq 1$?

If $PoG > 1$

- Females are more generous than Males

But if $PoG < 1$

- Males are more generous than Females

~> Results from [Secret Santa Dictator Game](#)
(Andreoni & Vesterlund, 2001)

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Andreoni & Vesterlund's Results

Income	PoG	Males	Females	p-value	Conclude
\$4	$\frac{1}{3}$	4.18	3.01	0.026	M > F
\$6	$\frac{1}{2}$	4.30	3.49	0.070	M > F
\$7.50	$\frac{1}{2}$	5.00	4.03	0.063	M > F
\$6	1	1.36	1.91	0.013	M < F
\$10	1	2.33	2.92	0.079	M < F
\$12	2	1.21	1.82	0.020	M < F
\$15	2	1.42	2.29	0.010	M < F
\$12	3	0.67	1.32	0.002	M < F
Average		2.56	2.60		M = F
N		95	47		

But Wait!

Remember We have three variables interacting with gender:
PoG, Preferences, and Expectations

And So Yes It is possible that Males/Females respond to differences in PoG differently

But Also Yes It is possible that Males/Females have different Home Grown Expectations about what they might receive

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Design and Treatments

So we wanted to cleanly control subjects' homegrown expectations, varying both PoG and budgets, and see if giving behavior was invariant across genders

Endogenous Secret Santa Dictator Game, Home Grown Expectations, Double Blind

- Same budgets, PoG as Andreoni & Vesterlund

Exogenous Secret Santa Dictator Game, We Control Expectations, Double Blind

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Controlling Expectations

Half the subjects choose **Hold** & **Pass** as usual, and half have their decisions determined by Bingo Draw

- Balls $0, 1, 2, \dots, N$ go into a bingo cage, one ball drawn
- Number on ball indicates amount Dictator will **Pass**
- **Hold** = $N - \text{Pass}$

From the instructions:

The outcomes of the second stage will be completely random and equally likely. The payments in the second stage will only depend on the bingo draw.

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CLAIM CHECK NUMBER

DECISION SHEET

DIRECTIONS: Please fill in all the blanks below. Make sure the number of tokens listed under *Hold* plus the number listed under *Pass* equals the total number of tokens available. Remember, all points are worth \$0.10 to all subjects.

1. Divide 40 tokens: *Hold* _____ @ 3 points each, and *Pass* _____ @ 1 point each.
2. Divide 40 tokens: *Hold* _____ @ 1 point each, and *Pass* _____ @ 3 points each.
3. Divide 60 tokens: *Hold* _____ @ 2 points each, and *Pass* _____ @ 1 point each.
4. Divide 60 tokens: *Hold* _____ @ 1 point each, and *Pass* _____ @ 2 point each.
5. Divide 75 tokens: *Hold* _____ @ 2 points each, and *Pass* _____ @ 1 point each.
6. Divide 75 tokens: *Hold* _____ @ 1 point each, and *Pass* _____ @ 2 points each.
7. Divide 60 tokens: *Hold* _____ @ 1 point each, and *Pass* _____ @ 1 point each.
8. Divide 100 tokens: *Hold* _____ @ 1 point each, and *Pass* _____ @ 1 point each.

Endogenous Expectations

Income	PoG	Males	Females	p-value	Conclude
\$4	$\frac{1}{3}$	2.95	3.31	0.6901	M = F
\$6	$\frac{1}{2}$	3.53	3.41	0.8990	M = F
\$7.50	$\frac{1}{2}$	3.64	4.07	0.7028	M = F
\$6	1	0.80	1.59	0.0338	M < F
\$10	1	1.01	2.53	0.0094	M < F
\$12	2	0.67	1.45	0.0441	M < F
\$15	2	0.55	2.00	0.0028	M < F
\$12	3	0.32	0.87	0.0362	M < F
Average		1.68	2.40	0.0306	M < F
N		30	32		

Exogenous Expectations

Income	PoG	Males	Females	p-value	Conclude
\$4	$\frac{1}{3}$	2.35	1.54	0.3013	M = F
\$6	$\frac{1}{2}$	2.32	1.92	0.6358	M = F
\$7.50	$\frac{1}{2}$	2.65	2.23	0.6602	M = F
\$6	1	0.98	1.13	0.6902	M = F
\$10	1	1.81	1.68	0.8172	M = F
\$12	2	0.75	1.15	0.3150	M = F
\$15	2	1.31	1.39	0.8938	M = F
\$12	3	0.59	0.84	0.4297	M = F
Average		1.60	1.49	0.5165	M = F
N		26	31		

Overall Results

Controlling for PoG and Expectations of others' giving, the gender effect — Females more generous than Males — in the range of expensive giving disappears

Conclusions

Aguiar, *et al.* (2008) find that Females expect that Females are more generous, while Males expect Males are as generous as women

Our claim is that expectations about others' giving may also be different among the genders