

Gift-exchange and Reciprocity in Laboratory Experiments

Background

- In the past 15 years, laboratory experiments featuring the gift-exchange game and variants. One issue is that of reciprocal behavior (or reciprocity).
- First paper was Fehr, Kirchsteiger & Riedl (1993, QJE). Many, many papers in the area. General finding that effort (either a monetary transfer or real effort on a task) is positively correlated with the size of the wage. Robust result (with some exceptions).
- Can be conducted as a market (oral auction) or a bilateral matching.

Payoff determination

- Earlier versions used a simple monetary sacrifice to simulate effort. A standard version of payoffs:

$$\pi_F = (100 - w) * e$$

$$\pi_W = w - c(e)$$

e	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
$c(e)$	0	1	2	4	6	8	10	12	15	18

- Prediction with selfish preferences is $e = 0.1$ in all cases, so set $w = 0$. But “firm’s” *ex-post* profit-maximizing wage is around 50.
- \exists other payoff schemes: Brandts and Charness (2003).

Some gift-exchange papers

- Fehr, Kirchsteiger & Riedl (1993), Fehr, Gächter & Kirchsteiger (1997), Brandts and Charness (2004), Charness (2004), etc. Effort very sensitive to wage.
- Some multi-person environments. Charness and Kuhn (2007) find no effect of one worker's wage on other worker's effort; Maximiano, Sloof, Sonnemans (2007) have 4 workers for each firm; only slightly lower effort levels. Effort very sensitive $\frac{de}{dw}$ to wage.
- Falk and Gächter (2002) use repeated g-e game (fixed matching). More reciprocal behavior, with some selfish subjects imitating (incomplete unraveling).

Real-effort experiments

- Tasks include stuffing envelopes, selling magazines, solving mazes, summing two-digit numbers, ...
- van Dijk, Sonnemans & van Winden (2001) find that individual and team pay schemes lead to the same effort levels. Some free-riding in teams, but more effort by others.
- Abeler *et alii* (2009) find that effort provision differs as per models of expectation-based reference-dependent preferences: If expectations are high, subjects work longer and earn more money than if expectations are low (guilt aversion?).

Reciprocity

- Different people have different views on the meaning of “reciprocity.” Most of what is observed in g-e games can be seen as “reciprocal behavior”. Is it really reciprocity or just sharing the wealth? Distributional preferences (F&S) sufficient, or are intentions (Rabin; C&R) needed?
- Charness (2004) and Offerman (2002) find negative reciprocity. Generally, little evidence of positive. Violation of expectations driving this difference?
- But intentions matter: Brandts and Charness (2003), Falk, Fehr & Fischbacher (2003), Charness and Levine (2007).

Laboratory and Field

- Current debate; emotions running very high. Levitt and List (JEP, Science) very negative on lab. But Falk and Heckman rebut strongly. But aren't hammer and screwdriver both useful tools?
- Gneezy and List (2006) find positive reciprocity goes away over time in a field experiment, but other field experiments (e.g., Kube, Marechal & Puppe (2008) do find a lasting relationship between gifts and worker productivity. Open issue.
- Lab external validity?: Barr and Siemens (2009) find a strong relationship between firm productivity and reciprocating behavior by workers in lab experiments.

Discrimination in Laboratory Experiments

Gender effects (1)

- Niederle and Vesterlund (Evidence that women “shy away” from competition). Holding ability levels fixed, men are more likely to enter a tournament versus piece-rate scheme (summing 2-digit numbers).
- Gneezy, Niederle & Rustichini (2003): women less effective than men in competitive environments (solving mazes), even if they are able to perform similarly in non-competitive environments.
- Booth and Nolen: gender differences sensitive to gender mix; girls more likely to choose risky outcomes when assigned to all-girl groups. Suggests that gender differences in risk reflect social learning rather than inherent gender traits.

Gender effects (2)

- Schwieren (2003) asks why women receive lower pay for comparable work? Suggested explanations include poorer negotiation skills (Babcock) and discrimination by employers. Experiment in BCN.
- Striking results: Female workers receive significantly lower wages than male workers, no matter whether men or women are in the role of the firm. But this doesn't pay for firms. Extrapolating to real labor market, results suggest stereotypes, rather than statistical discrimination.

Affirmative Action (1)

- Corns and Schotter (1999) demonstrate that price-preference auctions (high-cost minority firms given preferential treatment in procurement) can both enhance minority representation and be cost effective if degree of price-preference is chosen correctly.
- Niederle, Segal & Vesterlund (2008) examine how affirmative action affects competitive entry. When women guaranteed equal representation among winners, more women and fewer men enter competitions. Results suggest that affirmative action need not be costly, but may be sensitive to parameters.

Statistical discrimination (2)

- Fryer, Goeree & Holt (2005) have “green” and “purple” workers with different “investment costs”. Investment improves chance worker does well on pre-employment test; this is observed by firm, who can hire either green (lower cost) or purple. Green hired substantially more often.
- Fershtman and Gneezy (2001): Ashkenaz and Sephardic (Eastern) Jews in Israel. Systematic distrust of those of Eastern origin in trust game. But dictator game shows distrust unwarranted, due to a mistaken ethnic stereotype, not to a “taste for discrimination”. Discrimination only by males.

Beauty Premium

- Mobius and Rosenblat (2006): Maze-solving task, performance unaffected by one's looks. But attractive workers are considered more able by employers; more confident and better communication and social skills, so higher wages when they interact with employers.
- Wilson and Eckel (2006): Attractive trustees seen as more trustworthy, so trusted at higher rates, but do not live up to expectations.
- Andreoni and Petrie (2008): Players expect beautiful people to be more cooperative. But premium disappears, as (relative to expectations) they appear more selfish, so less cooperation by others.