RECIPROCITY & LABOUR MARKETS

Gift Exchange Experiment

Can a generous wage induce workers to provide more effort - even when effort cannot be enforced?



EMPLOYER
Offers a wage

WORKER
Chooses effort

RECIPROCITY
Wage ↔ effort

In a gift-exchange game, one side offers a wage or generous contract and the other side can reciprocate with effort or quality. The experiment tests whether fairness and reciprocity help sustain cooperation.

01 THE QUESTION
02 THE CHOICE
03 THE MECHANISM
04 THE EVIDENCE

A practical guide to the experimental design, the economic intuition, and the interpretation of results.

The experiment: wage first, effort second

The key feature is an incomplete contract: the employer can offer a wage, but the worker’s effort is not perfectly enforceable. The worker chooses effort after observing the wage.

SEQUENTIAL STRUCTURE

1. Employer: chooses a wage w. 2. Worker: accepts or rejects, then chooses effort e. 3. Payoffs: depend on the wage and the effort actually supplied.

EMPLOYER / FIRM

Chooses a wage that affects the worker’s expected response. A higher wage is costly, but it may generate more effort and higher output.

WAGE = w

WORKER / EMPLOYEE

Observes the wage and chooses how much effort to provide. Effort is costly; the worker can respond with more effort when the offer is perceived as fair or generous.

EFFORT = e

ILLUSTRATIVE PAYOFFS

Let effort e range from 0.1 to 1 and wage w be at least 10. For a simple classroom model:
Firm payoff: 100e - w Worker payoff: w - 20e^2.

These payoff functions are illustrative, not a universal parameterization of the original experiments. The essential mechanism is that effort raises output but is costly to the worker.

Why might workers reciprocate?

The gift-exchange hypothesis predicts that workers may respond to a generous wage with higher effort, even when a purely monetary, self-regarding model predicts minimum effort.

THE RECIPROCITY LOGIC

An employer gives a “gift” through a wage above the minimum acceptable level. A worker may return the gift through effort. The relationship is not a literal gift of money; it is a reciprocal response within an economic exchange.

SELF-INTEREST BENCHMARK

If effort only creates a private cost and does not affect the worker’s wage, a self-regarding worker chooses the minimum feasible effort. Anticipating this, the employer offers the lowest wage that secures participation.

GIFT-EXCHANGE PREDICTION

If workers reciprocate perceived kindness, higher or fairer wages can induce higher effort. The wage-effort relationship can therefore be positive even without a binding effort contract.

WHAT THE EXPERIMENT LOOKS FOR

A positive relationship between wages and subsequent effort, especially when wages are perceived as generous relative to a relevant benchmark. The size and shape of the response are empirical questions.

A positive wage-effort pattern is consistent with reciprocity, but it can also reflect repeated-game reputation, selection, beliefs about monitoring, or other motives. The design must separate these channels.

A practical protocol and measurement plan

The simplest bilateral design is easy to teach. A market version adds competition and is closer to some classic experimental labour-market studies.

BILATERAL PROCEDURE

- Assign roles. Randomly assign participants as employers or workers and match them anonymously.
- Offer a wage. The employer chooses w from a pre-specified range and may state an intended effort level.
- Choose effort. The worker observes the offer and chooses e after acceptance. Effort is not contractible.
- Calculate payoffs. Use the announced payoff functions and pay participants according to actual choices.
- Keep records. Save wage, intended effort, acceptance, actual effort, and participant role.

MEASUREMENT AND ANALYSIS

- Primary outcome: worker effort e.
- Main explanatory variable: offered wage w.
- Compare effort across wage levels and contract conditions.
- Estimate the wage-effort slope and inspect heterogeneity by beliefs or fairness ratings.

BASIC EMPIRICAL MODEL

Effort_i = alpha + beta(Wage_i) + controls + error_i

A positive beta indicates higher effort associated with higher wages. For causal interpretation, randomize wage offers or use a design that addresses endogenous wage setting.

DESIGN CHOICES THAT MATTER

Compare one-shot anonymous matching with repeated matching; vary whether fairness information is provided; and consider a competitive market condition. Do not mix these changes without a clear identification strategy.

What gift exchange can explain

A wage-effort response shows that contracts and incentives may work through more than enforceable monetary rewards. It does not mean every worker responds reciprocally or that higher wages always raise effort.

INTERPRETATION

- Higher effort after a generous wage is consistent with positive reciprocity.
- Lower effort after an unfair offer can be consistent with negative reciprocity or retaliation.
- A persistent wage-effort relationship can help explain why some firms pay above the market-clearing wage.

PITFALLS

- Repeated matching creates reputation and strategic incentives.
- Workers may differ in ability or outside options.
- A wage-effort correlation is not automatically causal.
- Effort measures need to be credible and understood.

CLASSIC VARIANTS

- Bilateral employer-employee gift-exchange games.
- Competitive labour markets with wage offers and worker effort/quality.
- Fairness, monitoring, and contract-enforcement treatments.

FOUNDATIONAL READINGS

Akerlof, G. A. (1982). “Labor Contracts as Partial Gift Exchange.” Quarterly Journal of Economics, 97(4), 543-569.

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