INEQUITY AVERSION AND TEAM INCENTIVES
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Research Question:
We show how a Manager can use Inequity Aversion to provide incentives to Employees to work hard.

1. Standard Vs. Inequity Averse Employees
   a. Standard Employees:
      Their Utility (U) depends on their Wage (w) and the Cost of Working Hard (c).
      \( U = w - c \)
   b. Inequity Averse Employees:
      Their Total Utility (U) depends on their Utility (UI) which depends on their Wage (w) and the Cost of Working Hard (c), but also on their Utility of their co-worker (U2), and thus on their Wages (w) and cost of effort (c).
   We use Inequity Aversion Preferences as modelled by Fehr & Schmitt (1999):
      \( U_{eq} = U - \alpha \left( U_{c} - U_{2} \right) \)
      \( \alpha > 0 \)
   Assumed that \( \alpha > 0 \).

We deal with Two types of Aversion to Inequity:
   - Envy: You feel bad because your co-worker is better off than you.
   - Guilt: You feel bad because your co-worker is worse off than you.

We compare the Design of the Optimal Wages when Employees are Standard Vs. when they have a Preference for Equality.

2. The Model
   1. Principal (Manager), 2. Agents (Employee 1 and 2)
   No Incentive Problems (Production Deterministic).
   Production is Positive and Increasing with Employees working Hard
   Production Function:
   \[
   \begin{array}{c|ccc}
   \text{Employee 1} & \text{Work Hard} & \text{Not Work} \\
   \hline
   \text{Employee 2} & \text{Work Hard} & \text{Not Work} & \text{Work Hard} & \text{Not Work} \\
   \hline
   1 & q_1 & 0 \\
   \end{array}
   \]
   Assuming \( q_1 \) and \( q_2 \) are corner solutions.

3. Solution Under Standard Preferences
   If Employees have standard preferences, the Manager just needs to compensate for the cost of working hard.
   \( \text{Employee 1: } w_1 = w_2 = c \)
   \( \text{Employee 2: } w_1 = w_2 = c \)

4. Solution Under Inequity Aversion
   The Utility of each Employee now depends on the wage paid to their co-worker.
   By offering extreme rewards to co-workers, the effects of Inequity Aversion are maximized.
   Extreme Rewards: Either pay an All Production Available or nothing.
   The Manager takes the decision of what effect to exploit Envy or Guilt (knowing it agents care more for Envy or Guilt)
   To Maximize Envy I will offer to pay all available production to the agent that works hard alone
   To Maximize Guilt I will offer No Wage to the agent who works hard alone
   Only one of the effects (Envy or Guilt) can be used by the Manager on each Employee.
   Whether Envy or Guilt is used depends:
   Envy: An Employee will Work Hard if he knows that when Not Working his co-worker gets a High wage. This will be used if the employee suffers a lot more Envy (a High)
   Guilt: An Employee will Work Hard if he knows that when Not Working his co-worker gets a High wage. This will be used if the employee suffers a lot more Guilt (a High)
   But it also depends on: Cost of Effort
   If it is very costly for a Employee to Work Hard then the Manager tends to exploit Guilt (a Employee) by not paying Employee 2. Then an employee will feel even more guilty for sharing.

5. Results
   - Some Production Levels can be Implement at a Lower Total Cost for the Manager when Employees are Inequity Averse.
   - Optimal level of Production can change.
   - It is always good for the Manager to take into account Inequity Aversion.

6. The Paper Discusses
   - Uniqueness of Equilibria
   - Robustness to Confusion
   - Wage design if agents feel Spite (similar and stronger results)

7. Conclusions
   - Human Resources and Experimental Literature tells us that Employees compare amongst themselves. We do a theoretical exercise.
   - An optimal wage policy can make use of it by creating Inequity out of equilibrium.
   - Firm design can help to make these comparisons stronger.

8. In Summary
   - O.K, how if you don’t want to raise my wage, what about raising Parker’s!