Subtle Discrimination

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What is subtle discrimination?

Social and organizational psychologists describe *subtle discrimination* as actions that are:

- ▶ Ambiguous in intent to harm

- ▶ Ex-post rationalizable (i.e., subject to "plausible deniability")

- ▶ Difficult to identify

- ▶ Often (but not always) unintentional

Such actions leave no hard evidence to identify them as discriminatory.

Subtle discrimination: Examples

- ▶ A supervisor asks female subordinates to perform menial tasks.

- ▶ A manager rarely praises the performance of minority employees.

- ▶ When choosing among equally-qualified candidates, a firm disproportionately promotes men to managerial positions.

What we do

1. We propose a classification of discriminatory acts into two categories: overt and subtle.

2. In a tournament model of promotions, we show that subtle discrimination and overt discrimination have different empirical predictions.

3. Our empirical predictions relate firm characteristics to

   ▶ performance of different groups of workers, e.g. investment in human capital and career advancement;

   ▶ diversity of top management teams;

   ▶ and firms' choices of anti-discrimination policies.

A definition of subtle discrimination

- We define *subtle discrimination* as biased acts that cannot be objectively ascertained as discriminatory.

- In promotions, when two candidates are equally qualified, promote the one you like the most.

  - In contrast, *overt discrimination* occurs when a less-qualified favored candidate is promoted ahead of a more-qualified unfavored candidate.

- To put it simply, **subtle discrimination is an inability or unwillingness to break "ties" fairly**.

Setup: Promotion decision

▶ A principal needs to fill a top position (*job 2*) and chooses between two agents, both at entry level positions (*job 1*): b (*blue*) and r (*red*).

▶ Both agents are initially "unskilled" ($s_i = 0$) but can invest to become skilled ($s_i = 1$).

▶ Skill is observed by the principal but not contractible.

▶ Promoting an unskilled agent increases the principal's payoff by $l \geq 0$, while promoting a skilled agent increases the payoff by $l + \theta$ (the *productivity gain*).

Setup: Bias in promotion

- Principal always promotes the most skilled agent.

- In case of a "tie", principal promotes Blue with probability $\frac{1}{2} + \beta$.

- Principal is *subtly biased* in favor of blue agents if $\beta > 0$.

  - Overt discrimination takes place if an unskilled blue agent, $s_b = 0$, is promoted ahead of a skilled red agent, $s_r = 1$, with probability δ;
  - As long as $\beta \geq \frac{\delta}{2}$, there is *excess subtle bias*.

- Principal enjoys no private benefit from discrimination.

Interpreting "ties"

- Ties should be interpreted as very similar objective qualifications:
  - 2 years versus 2 years and 2 months of experience
  - 3.70 GPA versus 3.65 GPA
  - sales record of \$100K versus \$105k, etc.

- In such cases, the principal uses a subjective signal s to separate the candidates.

- The signal has low informativeness and is biased.
  - Hoffman, Kahn, and Li (2018): Evidence of bias when discretion is used in hiring.

- Our model is a limiting case when both observable differences and the signal-to-noise ratio go to zero.

Setup: Agent's investment in human capital

▶ Agents are *ex ante* identical, except for labels.

▶ They make costly investments e_i (unobservable), $i \in \{b, r\}$, to acquire skill.

▶ Probability of success is e_i.

▶ Cost of effort is $\frac{k}{2}e_i^2$.

Agent's problem (under exogenous contracts)

- Agent at the top (bottom) job receives w_2 (w_1), where $w_2 - w_1$ is *promotion premium*.

- We refer to $\sigma \equiv \frac{w_2 - w_1}{k}$ as "stake" of a career path. For presentation, $k = 1$.

- Blue agent's problem:

$$\max_{e_b \in [0,1]} \sigma \left[e_b(1-e_r) + \left(\frac{1}{2} + \beta \right) \left(e_b e_r + (1 - e_b)(1 - e_r) \right) \right] - \frac{e_b^2}{2}$$
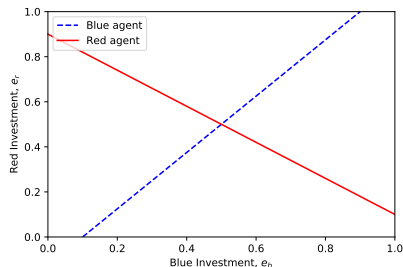
- Red agent's problem is symmetric, except for $\left(\frac{1}{2} - \beta \right)$ term.

Agents' reaction functions

- If no discrimination, $\beta = 0$, the agents' investment reaction functions are flat: $e_b = e_r = \frac{\sigma}{2}$.
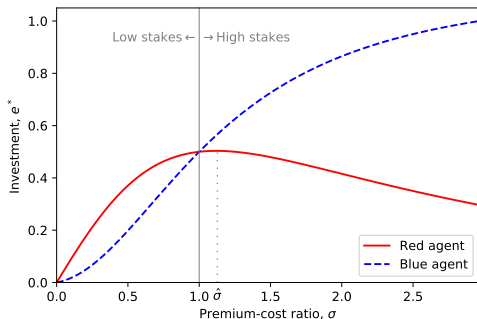
- If $\beta > 0$, the reaction functions are

$$e_b = \sigma \left(\frac{1}{2} - \beta + 2\beta e_r \right),$$

$$e_r = \sigma \left(\frac{1}{2} + \beta - 2\beta e_b \right).$$

Agents' reaction functions for $\sigma = 1.0$ and $\beta = 0.4$

Optimal investment in skills

Agents' investments as a function of stakes σ for $\beta = 0.4$

Discouragement effect:
When stakes are high, Blue invests more than Red.

Overcompensation effect:
When stakes are low, Red invests more than Blue.

- ▶ driven by incentives to separate

- ▶ stronger when discrimination is subtle rather than overt

Suggestive evidence

High stakes

► Azmat, Cunat, and Henry (2021) find that gender promotion gaps in law firms can be explained by men working more hours (i.e., exerting more effort) in entry-level positions.

Low stakes

► Benson, Li, and Shue (2021) find a substantial gender promotion gap among retail workers, despite the fact that women on management-track careers have better performance than men.

Who benefits more from skill acquisition?

► When separation is possible, the model predicts that Red benefits more than Blue from investing in skills (see Niessen-Ruenzi and Zimmerer (2023), "The Value of Skill Signals for Women's Careers")

Firm's problem: Optimal stakes and biases

A risk-neutral principal maximizes expected profit:

$$\max_{\beta, \sigma} \theta \left(e_b + e_r - e_b e_r \right) - \sigma,$$

subject to $e_b = e_b^*(\sigma, \beta)$ and $e_r = e_r^*(\sigma, \beta)$, where θ is the *productivity gain* upon promotion of a skilled agent.

**Interpretation**: firms may not directly choose β, but instead:

▶ They may allocate more or fewer resources to tackle discrimination and promote diversity

▶ Market forces may drive firms with suboptimal biases out of the market

▶ **Main question**: Does subtle discrimination benefit or harm firms?

Optimal subtle discrimination: Stakes and promotion gap

Proposition: There exists θ' such that

$$\beta(\theta) = \begin{cases} 0.5 & \text{if } \theta < \theta', \\ 0 & \text{if } \theta > \theta'. \end{cases}$$

Stakes and promotion gap if a firm can choose β:
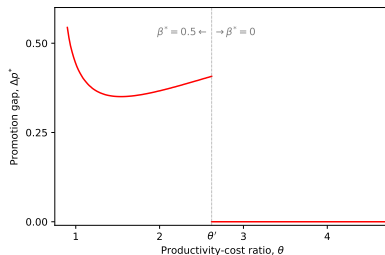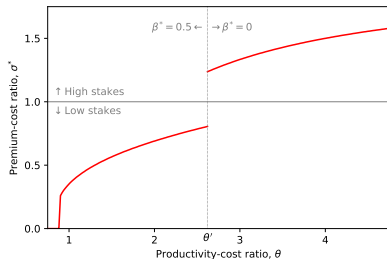
The polarization of firms

Low-θ (less profitable) firms:

- ▶ offer careers with lower stakes;
- ▶ are conservative;
- ▶ have less diversity at the top.

High-θ (profitable) firms:

- ▶ offer careers with higher stakes;
- ▶ are "progressive" and "activist";
- ▶ have more diversity at the top.

Evidence

- ▶ Edmans, Flammer, and Glossner (2023) find that employees' perception of diversity, equity and inclusion is stronger in growing, high-valuation, and financially strong firms.
- ▶ In the cross-section, large and high-performing firms have more women on their boards (Adams and Ferreira, 2009).

Main Takeaways

- We define subtle discrimination as biased acts that cannot be objectively ascertained as discriminatory.

- Subtle and overt discrimination have different predictions:
  - The overcompensation effect may dominate the discouragement effect when discrimination is subtle.

- Low-productivity firms offer low-stakes career prospects and:
  - have larger promotion gaps;
  - their unfavored workers perform better than favored ones;
  - are less progressive and activist,

- Progressive firms are large, profitable, diverse at the top, and likely to have steep career profiles.