

Does Identity Affect Labor Supply?

- NBER SI 2020 Development Economics -

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July 20, 2020

What is identity and why does it matter?

- **Identity** refers to individuals' concepts of “who they are.”
 - Oriented around social categories (e.g. men, women, students), which are associated with different behavioral prescriptions.
- Violating such prescriptions could lead to emotional or psychological costs; hence identity can affect a host of economic outcomes.

(Akerlof and Kranton 2000)
- Different from **social image**, i.e. how individuals are perceived by others.

Identity in the labor market

- Longstanding ideas in psychology and sociology
 - E.g. Burke and Stets 2009; Hogg, Terry, and White 1995; Stryker and Burke 2000
- Nascent literature in economics
 - Identity theories: Akerlof and Kranton 2000; Bénabou and Tirole 2006, 2011
 - Laboratory studies on identity: e.g. Benjamin, Choi, and Strickland 2010; Bursztyn et al. 2017; Falk 2017
 - Field experiments on social image: e.g. Breza, Kaur, and Krishnaswamy 2019; Bursztyn, Gonzalez, and Yanagizawa-Drott 2018; Karing 2018
- People may avoid certain jobs because they believe those jobs conflict with their identity.
- However, it has been difficult to empirically establish this relationship.

This paper

- Run a field experiment using caste identity to study how identity concerns affect job-specific labor supply.
- In rural Odisha, India, laborers belonging to different castes choose whether to take up various real job offers.
 - Some offers involve spending some time on tasks that are associated with specific caste groups.
- Offer take-up rate falls if the offers involve tasks that are associated with castes other than their own.
 - The gap is 23 pp when those castes rank higher than the workers' own and 47 pp when they rank lower.
- 43% of workers refuse to spend 10 minutes working on tasks associated with other castes, even when offered 10 times their daily wage.

Surveys on caste association and ranking

1. Task survey (N=151, 15 castes)

- Is there a specific caste group that performs this task? If so, which group?
- What is your prior experience with this task?

2. Ranking survey (N=209, 15 castes)


- Rank 6 SC and 1 OBC castes selected for the experiment
- Based on their perceptions of social hierarchy or food- or water-sharing practices

Caste association and ranking


| Caste | Rank score | Identity tasks (rate of association) | Paired-control tasks (rate of ass. w/ any SC) |
|----------|------------|---|--|
| Kaibarta | 1.48 | | |
| Sundhi | 2.07 | | |
| Dhoba | 3.71 | Washing clothes (0.72) | Washing farming tools (0) |
| Kela | 4.14 | | |
| Mochi | 4.59 | Mending leather shoes (0.98) | Mending grass mats (0.15) |
| Pana | 5.19 | | |
| Hadi | 6.60 | Sweeping latrines (0.84) | Sweeping animal sheds (0) |

* **Pure control tasks:** Making paper bags, Deshelling peanuts, etc.

Assigning relative task status

| Caste | Rank score | Identity tasks (rate of association) | Paired-control tasks (rate of ass. w/ any SC) | |
|--|------------|---|--|-------------|
| Kaibarta | 1.48 | | | |
| Sundhi | 2.07 | | | |
| Dhoba | 3.71 | Washing clothes (0.72) | Washing farming tools (0) | Higher |
| Kela | 4.14 | | | |
|  Mochi | 4.59 | Mending leather shoes (0.98) | Mending grass mats (0.15) | Same-ranked |
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Take-away from surveys

- With a diff-in-diff style regression, can compare how prior experiences with tasks change with relative task status
- Prior experience (e.g. at home, for neighbors, for wage) appears similar regardless of caste association and relative status
 - Exception: subjects are more likely to have performed the tasks for wage when the tasks are directly associated with their own castes
- The goal of the experiment is to conduct a similar analysis using workers' willingness to take up job offers

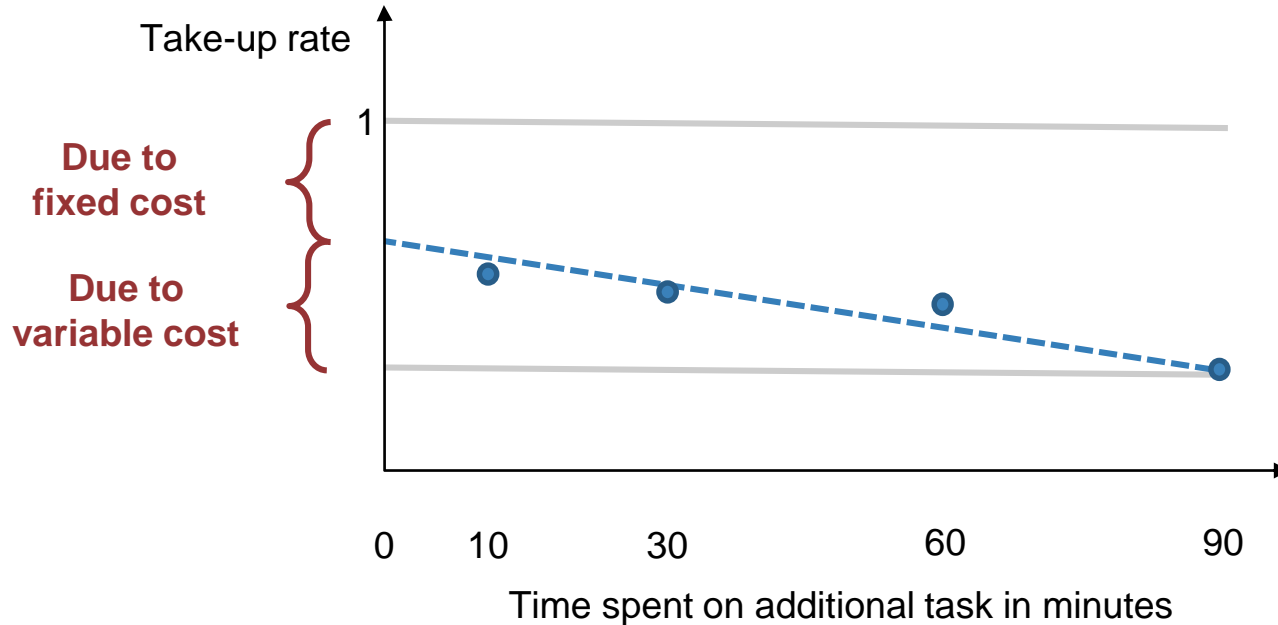
Job take-up experiment

- Sample
 - 630 male workers primarily engaged in daily-wage labor
 - Interested in a one-day job of producing paper bags
- Each worker was asked to evaluate multiple job offers
 - Same flat daily wage, total working time of 5 hours, employer, and work site
 - Offer involves working on paper bag making + **one extra task**
 - ▶ Variations in the extra task's **type** and **time requirement** (10-90 min)
 - ▶ Extra task always performed in a **private space**
 - ▶ Workers were asked to accept or decline each offer as if it were a single take-it-or-leave-it offer and provide a simple honest answer
 - ▶ One offer was randomly selected and implemented

Costs of working on a task

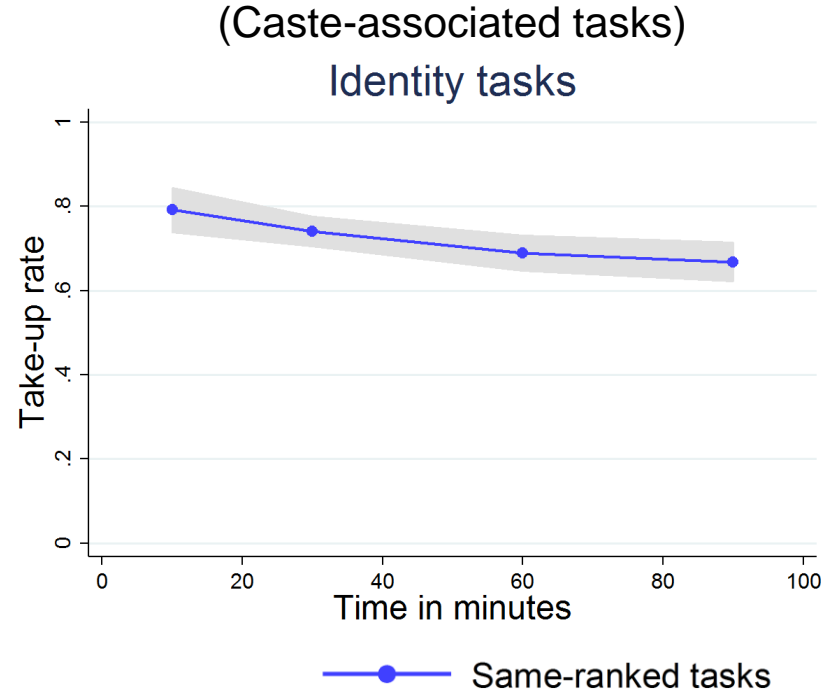
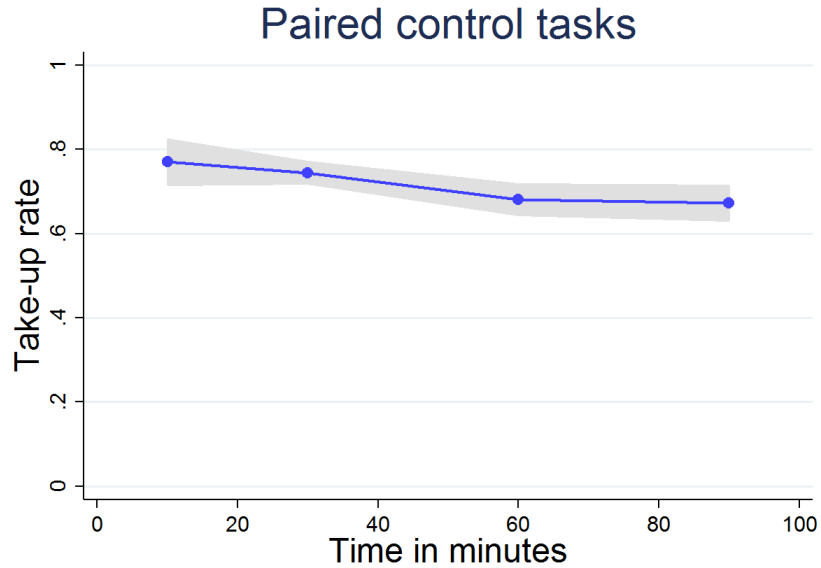
- This design allows me to decompose the observed changes in offer take-up rates into two parts
- **Assumptions.** For each task:
 - A fixed utility cost gets incurred if one spends any time at all on the task
 - A variable utility cost depends on the time spent on the task.
 - ▶ This cost is zero when the worker does not spend any time on the task and is continuous in the time spent on the task.
 - ▶ E.g. a linear function of time

Separating the changes in take-up rates

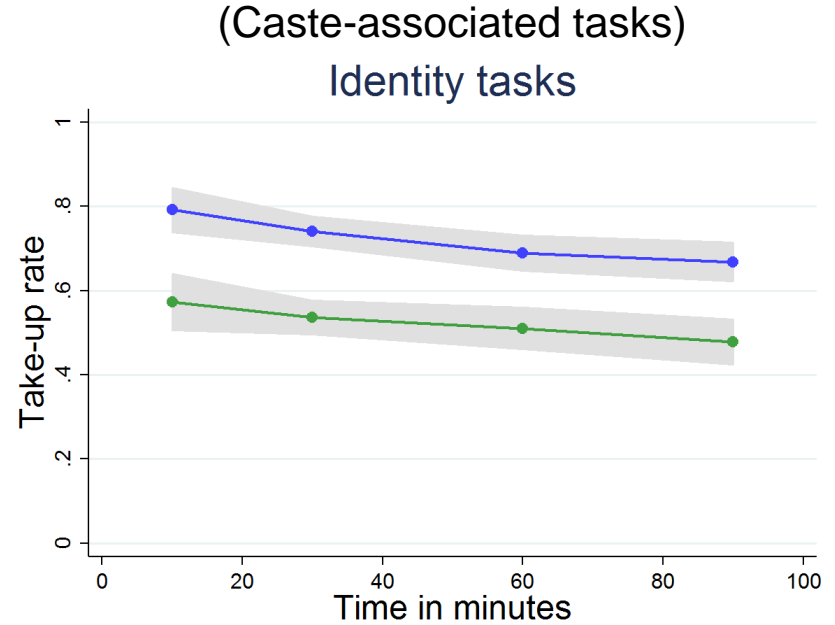
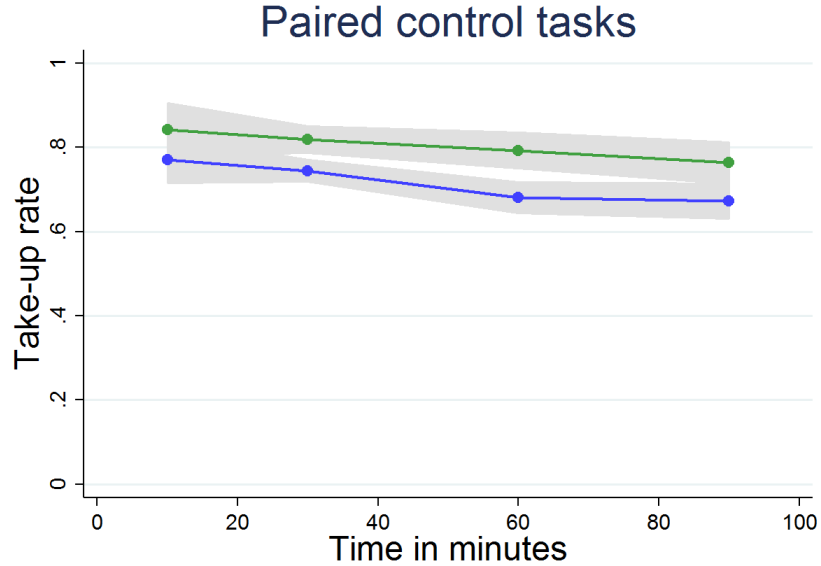


*Assumption: Aside from identity concerns, the fixed costs are distributed similarly across different caste groups.

Willingness to take up offers

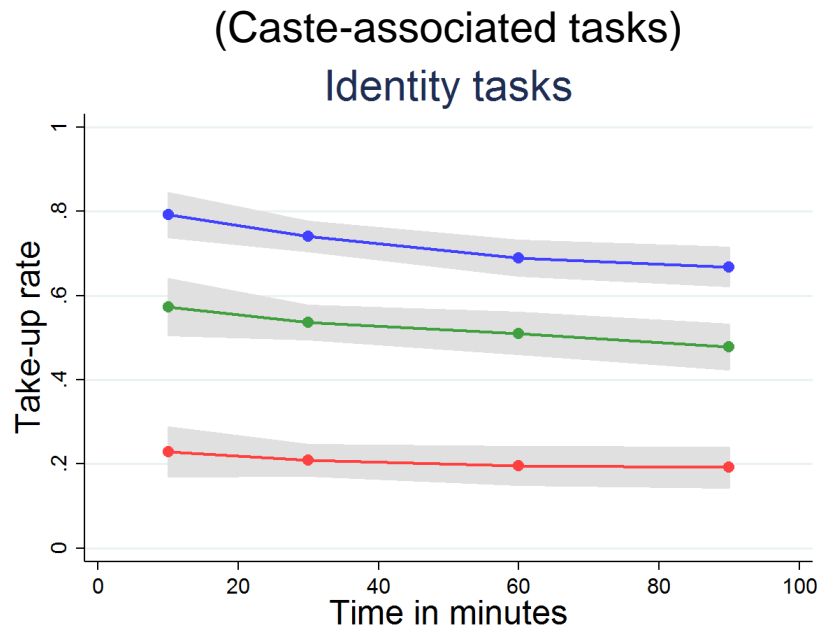
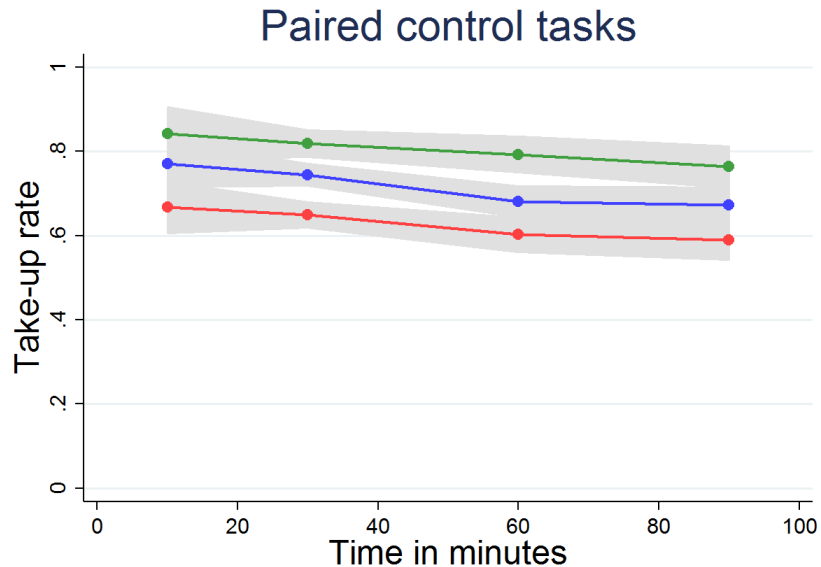


Willingness to take up offers



- Same-ranked tasks
- Higher tasks

Willingness to take up offers



- Same-ranked tasks
- Higher tasks
- Lower tasks

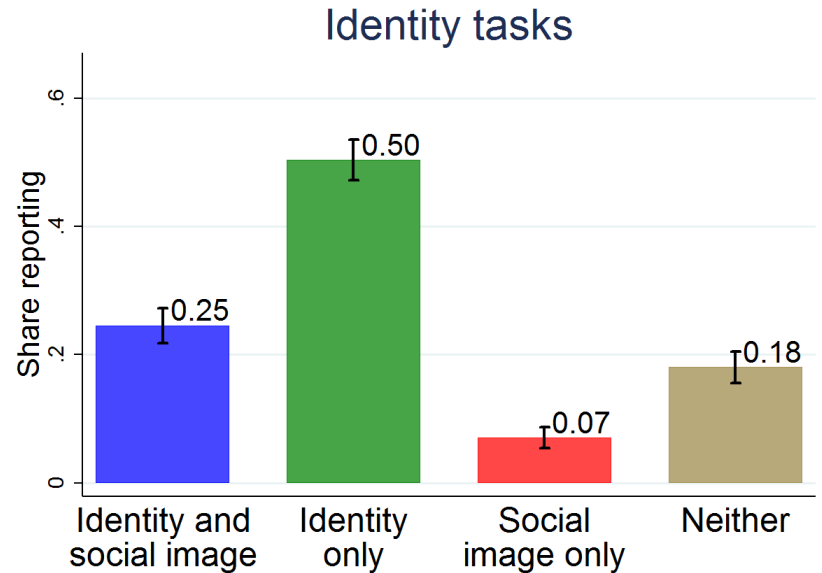
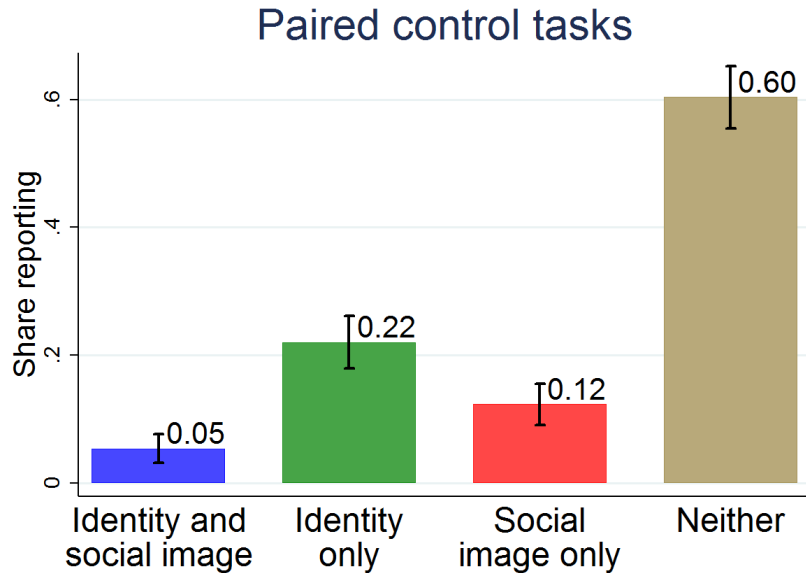
Regression results and mechanisms

- Workers are averse to taking up job offers that are associated with castes that differ from their own castes
 - Gap in take-up rate is 23 pp for higher tasks and 47 pp for lower tasks
 - Gap for lower tasks is larger among those who express stronger support for following caste norms
- Suggest that workers are driven by concerns about violating caste rules
 - Results are robust to controlling for education and wealth measures.
 - Limited role of other factors, e.g. skills, alternate job opportunity, expectations about employer, working environment.

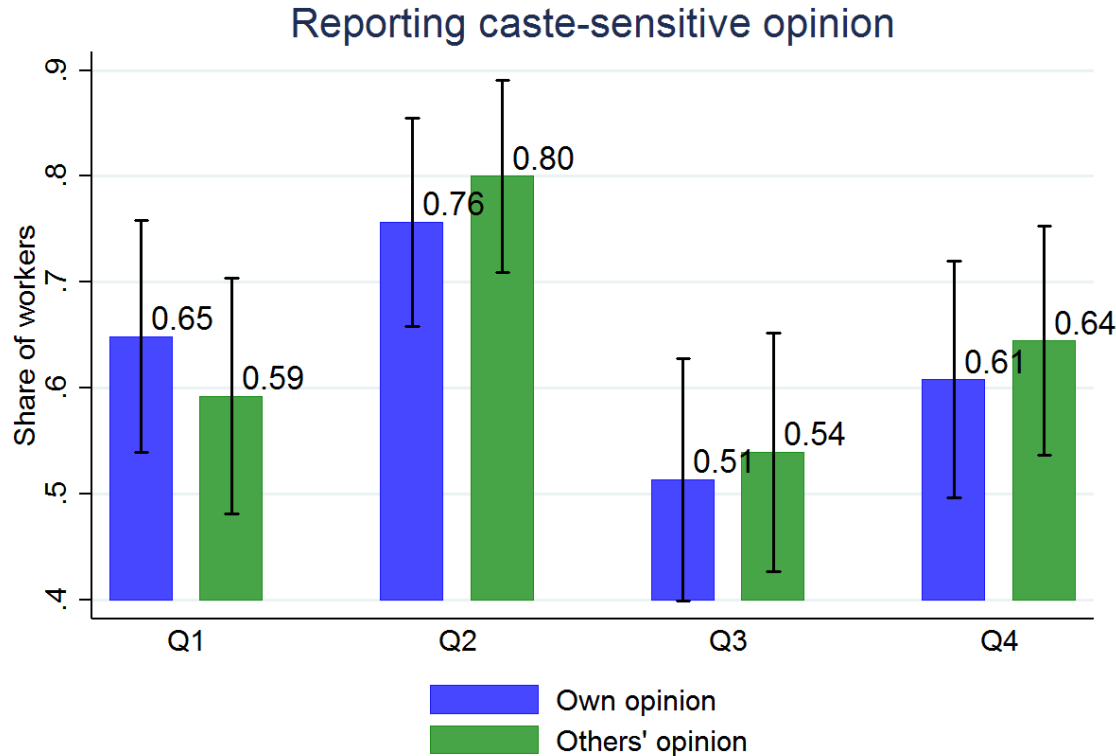
The role of social image

- Workers were randomized into private or public conditions at the village level.
 - Only vary the observability of workers' choices.
- **No differential effects** if decision is public vs. private.
- Effects driven by concerns about identity, rather than social image
 - Stated reasons for turning down offers tend to relate to identity.
 - Own opinions and beliefs about others' opinions regarding caste norms are similar according to the Task Survey.

Stated reasons for declining offers



Beliefs about others' opinions



The Task Survey asked four vignette questions regarding opinions on caste norms. The answers do not differ by whether the question asked for own view or friends and neighbors' view.

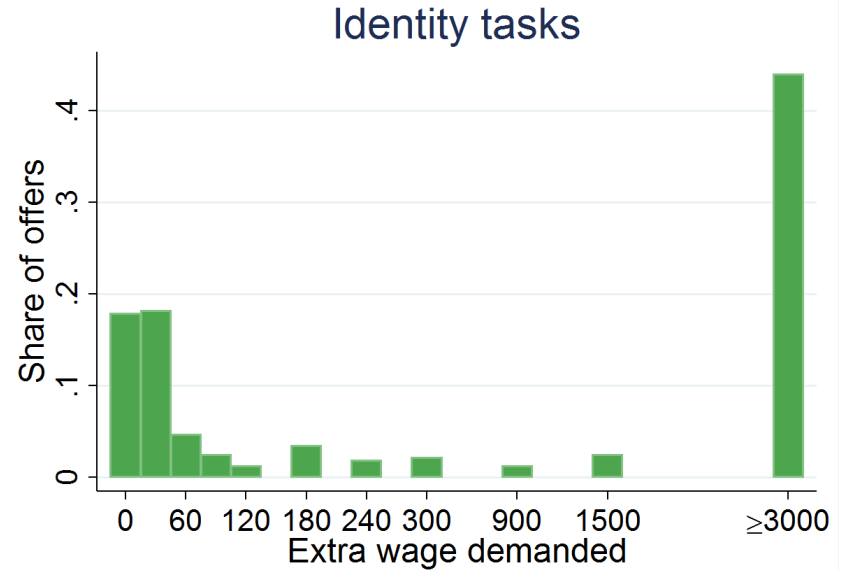
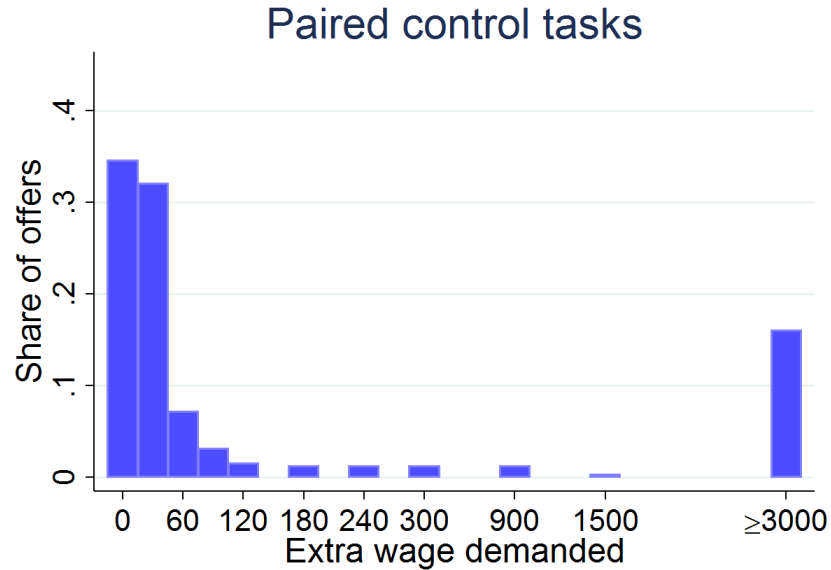
Some caveats

- The design cannot completely rule out the role of social image.
- For instance, one could be worried about:
 - Lack of assurance regarding privacy
 - Social image cost towards the surveyor
 - Expected cost of lying to others
- However, given workers' survey answers and other study findings on social image effects (Breza et al. 2019), it seems that the role of social image may be limited in this particular decision process.

Supp. experiment design

- Procedures
 - Workers from two caste groups not associated with experimental tasks
 - Got started on a one-day paper-bag manufacturing job paying Rs. 300
 - Were given surprise offers to switch to working on another task for part of the remaining working time and receive a bonus wage
- Use the BDM method with a price (bonus wage) list
 - Bonus wage $\in \{0, 30, 60, 90, 120, 180, 240, 300, 900, 1500, 3000\}$

Extra wage demanded for switching for 10 min



Discussion

- Results indicate that workers have a strong aversion to violating their internal rules of behavior.
 - 43% of workers are willing to forego at least 10 times their daily wage (close to one month's earning during agricultural lean seasons).
- Workers avoid otherwise desirable jobs due to identity concerns.
 - A channel through which occupational opportunity becomes unevenly distributed across groups. (Cassan, Keniston, and Kleineberg 2019)
 - Could be important in other settings where jobs are associated with specific social groups (e.g. pink-collar jobs).

Thank you!

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Identity effect on take-up

| Dependent variable: Willing to take-up job offer | | | |
|--|----------------------|----------------------|----------------------|
| | (1) | (2) | (3) |
| Different task | 0.059* (0.031) | -0.053 (0.033) | -0.053** (0.025) |
| Different × Identity | -0.251*** (0.046) | -0.233*** (0.046) | -0.233*** (0.037) |
| Lower task | -0.124*** (0.022) | 0.065** (0.028) | 0.065*** (0.022) |
| Lower × Identity | -0.205*** (0.035) | -0.238*** (0.035) | -0.238*** (0.026) |
| Identity | 0.000 (0.038) | | |
| Time controls | Yes | Yes | Yes |
| Task FE | No | Yes | Yes |
| Caste FE | No | Yes | No |
| Worker FE | No | No | Yes |
| R-squared | 0.200 | 0.223 | 0.498 |
| Observations | 20,160 | 20,160 | 20,160 |

Heterogeneity by caste sensitivity

Caste sensitive
workers are less
willing to take
up offers
involving lower
identity tasks



| | (1) | (2) |
|--|----------------------|----------------------|
| Different task | -0.033 (0.039) | -0.034 (0.030) |
| Different x Identity | -0.254*** (0.051) | -0.249*** (0.041) |
| Lower task | 0.061 (0.034) | 0.053* (0.027) |
| Lower x Identity | -0.177*** (0.045) | -0.182*** (0.034) |
| Caste sensitive x Different | -0.023 (0.043) | -0.018 (0.039) |
| Caste sensitive x Different x Identity | 0.058 (0.047) | 0.043 (0.036) |
| Caste sensitive x Lower | -0.009 (0.034) | 0.009 (0.029) |
| Caste sensitive x Lower x Identity | -0.161** (0.060) | -0.146** (0.047) |
| Task FE | Yes | Yes |
| Caste FE | Yes | No |
| Worker FE | No | Yes |
| R-squared | 0.230 | 0.502 |
| Observations | 17,632 | 17,632 |

Education and wealth controls

| | (1) | (2) | (3) | (4) | (5) |
|----------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Different task | -0.041 (0.026) | -0.041 (0.027) | -0.038 (0.027) | -0.040 (0.027) | -0.038 (0.027) |
| Different × Identity | -0.233*** (0.039) | -0.233*** (0.039) | -0.240*** (0.039) | -0.234*** (0.039) | -0.240*** (0.039) |
| Lower task | 0.062*** (0.024) | 0.064*** (0.024) | 0.058** (0.024) | 0.060** (0.024) | 0.060** (0.024) |
| Lower × Identity | -0.245*** (0.028) | -0.247*** (0.028) | -0.238*** (0.029) | -0.244*** (0.029) | -0.238*** (0.029) |
| Task-specific interactions | High edu. | Years of edu. | High wealth | Wealth PCA score | High edu. and wealth |
| Task FE | Yes | Yes | Yes | Yes | Yes |
| Caste FE | No | No | No | No | No |
| Worker FE | Yes | Yes | Yes | Yes | Yes |
| R-squared | 0.502 | 0.503 | 0.501 | 0.501 | 0.503 |
| Observations | 17,600 | 17,600 | 17,632 | 17,632 | 17,600 |

No additional effect from publicizing

If social image concerns were driving the take-up decisions, this coefficient would be negative and significant.



| | (1) | (2) |
|-------------------------------|----------------------|----------------------|
| Different task | -0.058 (0.045) | -0.053 (0.034) |
| Different x Identity | -0.223*** (0.065) | -0.233*** (0.051) |
| Lower task | 0.096** (0.034) | 0.086*** (0.028) |
| Lower x Identity | -0.253*** (0.046) | -0.253*** (0.035) |
| Public x Different | 0.010 (0.060) | 0.000 (0.048) |
| Public x Different x Identity | -0.019 (0.091) | -0.019 (0.072) |
| Public x Lower | -0.060 (0.041) | -0.040 (0.035) |
| Public x Lower x Identity | 0.030 (0.075) | 0.030 (0.046) |
| Task FE | Yes | Yes |
| Caste FE | Yes | No |
| Worker FE | No | Yes |
| R-squared | 0.225 | 0.498 |
| Observations | 20,160 | 20,160 |



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