# Ethnic Bias, Migration, and the Formation of New Social Identities among Returnees in Nepal 

Roy Chen and Slesh A. Shrestha

Social Science Baha Lecture Series
10 April 2024

## Temporary International Migration

- Temporary migration has risen in prominence, taking a dominant role in global international migration
- Temporary migrants outnumber permanent migrants in all categories combined in OECD countries
- >25 million workers from South Asia employed as temporary migrant workers abroad
- Positive impacts due to immediate benefits from increased earnings
- Does the limited time spent abroad by migrants benefit them and their communities after they return?
- Knowledge acquired: job creation, economic recovery [Dustmann and Kirchamp, 2002; Bahar et al., 2019]
- Changes in political preferences: demand for accountability and better governance [Spilimbergo, 2009; Batista and Vicente, 2011]
- Impacts on economic preferences and decision-making in lab settings [Gibson et al., 2019]


## Migration and Social Identity

- Effects extend beyond mere financial gains, as migrants' experiences abroad shape their preferences and decisions long after their return
- Does migration also affect social preferences that determine how they interact with individuals from a different group than their own?
- And, whether their migration experience can be leveraged to overcome preexisting social divisions prevalent in the origin country?
- Among immigrants in the US, their social identity associated with their home country affect their labor market outcomes [Casey and Dustmann, 2010]
- In many other types of settings, individual's or group's social preferences and identities affect economic outcomes


## The Economics of Social Identity

- Cross-country (and within-country analysis):
- Ethnic diversity is associated with lower levels of public good provision [e.g. Alesina et al., 1999; Banerjee et al., 2005], higher levels of political corruption [e.g. Esteban et al., 2005], and worse economic performance [Alesina and Ferrara, 2005]
- Differing social identities of individuals make collective action and cooperation costly
- In the laboratory setting:
- Social identity (made salient through priming) affects contribution to public goods [Eckel and Grossman, 2005] and lending in microfinance [Chen et al., 2017]
- Risk preference, patience, altruism, social norms, and even cognitive ability [e.g. Hoff and Pandey, 2014]
- These effects can be described through the model of social identity
- First introduced in psychology and later adopted in economics by Akerlof and Kranton (2000)
- Different variations of social identity model:
- Social norms - the desire to follow the actions prescribed by a group [Akerlof and Kranton, 2005]
- Social preferences - individuals also care about the welfare of others, but they care about ingroup members more [Chen and Li, 2009]


## Contribution 1

- Nepal recently emerged from a prolonged period of civil conflict that was in part rooted in and fueled by ethnic tensions
- A rise in prosocial behavior within violence-affected communities in Nepal [Gilligan et al., 2013]
- A growing body of research in post-conflict settings suggests that enhanced social cohesion stems from heightened ingroup bias [Bauer et al., 2016]
- Strengthening prosociality towards one's own identity group, at the expense of the outgroup
- Voting patterns in the 2017 municipal election suggest a strong co-ethnic bias in voting [figure]
- In other settings, direct interventions to improve social cohesion has produced mixed results
- Community Driven Development (CDD) [Mansuri and Rao, 2013; Ban et al., 2015]
- Social norms difficult to change even in the longer term [Alesina et al., 2013; Avdeenko and Gilligan, 2015; Sanyal et al., 2015]
- Overcoming co-ethnic bias could be one of the most significant challenge to its post-conflict transition towards reconciliation and development


## Contribution 2

- Despite the popularity of temporary migration programs, evidence on the effects remains scarce
- Two notable exceptions are Clemens and Tiongson (2017) and Mobarak et al. (2023)
- In the short term, various restrictions imposed by these programs have shown to:
- Create monopsony power to suppress migrant wages in the UAE [Naidu et al., 2016]
- Increase demand volatility for Filipino migrants to global economic shocks [McKenzie et al., 2014]
- Restrict job mobility for vulnerable migrants in Singapore [Shrestha and Yang, 2019]
- Migration viewed as one of the most effective development policies [Gibson and McKenzie, 2014]
- Wide-range of interventions to improve the development impact of migration. Most of them focus on:
- Improving earning prospects of aspirant and current migrants [e.g. Beam et al., 2016, Shrestha, 2020]
- Better utilizing and managing remittance flowing into developing countries [e.g. Seshan and Yang, 2014, Ashraf et al., 2015]
- Interventions on the re-assimilation of return migrants are almost non-existent
- Little evidence on return migrants come from returning refugees and students [Bahar et al., 2024; Spilimbergo, 2009]
- But their migrant experience significantly different compared to temporary labor migrants


## Context

- Nepal is ethnically diverse
- 128 unique ethnicities, 123 different languages (2011 Nepal Census)
- Six broadly defined ethnic groups
- Brahmin-Chhetri: 31.1\%
- Janajati: 23.3\%
- Madhesi (15\%), Dalit (13.4\%), Newar (5\%), and Other minorities (13.3\%)
- [Slide example]
- We focus on the two largest ethnic groups: Brahmin-Chhetri (BC ) and Janajati $(J)$


## History of Ethnic Division and Inequality

- Brahmin-Chhetri have wielded significant administrative and political power in modern Nepal
- Codification of ethnicity-based caste categories into the legal system in 1854
- Continued consolidation of power even after the introduction of democracy in the 1950s
- Nationalism based on the religious, linguistic, and cultural values of the dominant group
- Excluding and alienating various indigenous ethnic groups as deviant from this universal national identity
- In politics, judiciary, and bureaucracy [Lawoti and Guneratne, 2013]:
- B-C group is over represented ( $60 \%, 65 \%$, and $84 \%$ respectively), while $J$ group is underrepresented (17\%, 6\%, and 3\%)


## History of Ethnic Division and Inequality

- Brahmin-Chhetri have wielded significant administrative and political power in modern Nepal
- Maoist insurgency between 1996 and 2006
- New constitution decentralized power to newly formed provincial and municipal governments, with inclusive local governance as a cornerstone of this "new" Nepal
- These reforms have improved the political representation of ethnic groups like Janajati
- In the initial municipal election held in 2017, B-Cs were still disproportionately represented among the elected municipal chairs ( $\approx 50 \%$ )
- Ethnic heterogeneity remains high across all newly formed municipalities
- All 753 municipalities include both $B-C$ and $J$ ethnic groups [map]
- The average size of the largest ethnic group in a municipality is $58.7 \%$
- In 565 ( $75 \%$ ) municipalities, the largest ethnic group only makes up not more than $70 \%$ of its population
- In municipalities where $B-C$ or $J$ ethnic group comprises of more than $50 \%$ of the population, the other group still makes up, on average, $13 \%$ of the population
- Such granular ethnic diversity can hinder collective action within the municipality


## Labor Migration and Returnees

- In the last two decades, coinciding with the civil war, migration of Nepali workers outside the country has risen dramatically
- 2001-2011: the share of migrants rose six-fold, remittance as the share of GDP increased ten-fold
- By 2011, one in every five households had a migrant worker living abroad (outside India)
- Migrant workers who have returned to Nepal make up a sizable group
- Return migrants are $7 \%$ of Nepal's working-age population (16\% of working-age men)
- An average age of 34 years
- They remain active members in their communities and many engage in political activities
- Return migrant membership groups and their activities ( $\approx 20 \%$ of our subjects)
- 38\% are member of neighborhood committees, $22 \%$ members of a political party
- 73\% have attended budget discussion meetings organized by local government


## Profile of Temporary Labor Migrants

- Labor permits issued by Department of Foreign Employment [table]
- Migrants are restricted to working in a few migrant-dominated sectors
- Our subjects worked with, on average, 18 Nepali migrants in their last job abroad (> 50\% from a different ethnic group than their own)
- Migrants also face strict limitations on social integration and physical mobility (e.g. family members do not accompany them, live in migrant dorms separated from natives)
- Subjects shared room with 5 other Nepalis, on average ( $\approx 50 \%$ from a different ethnic group)
- More than $70 \%$ lend money to other Nepali migrants ( $\approx 50 \%$ from a different ethnic group)
- Migration experience engenders substantial intermixing and interactions across ethnic lines
- This could increase social cohesion across different ethnicities
- Shared common experience
- Strengthen national identity


## Research Questions

- We run a lab-in-the-field experiment to test:

1. Whether subjects exhibit co-ethnic biases in their prosocial behavior?
2. Whether their migration experience (made salient through priming) can change their prosocial behavior?
3. Whether this migration effect can redress some of the co-ethnic biases prevalent in the status quo?

- Our main outcomes relate to the subject's prosocial behavior in the form of:
- Altruism, cooperation, and ethnic prejudice in selecting a leader/judge (an arbiter)
- Measured by their choices in different economic games


## Theoretical Environment

- A two-agent version of the identity-dependent social preference models of Charness and Rabin (2002), Chen and Li (2009), and Shayo (2009)
- Two agents, $i$ and $j$, where agent $i$ 's utility is:

$$
u_{i}=\left[\alpha^{1-r} \pi_{j}^{r}+(1-\alpha)^{1-r} \pi_{i}^{r}\right]^{1 / r}
$$

- $\pi_{i}$ and $\pi_{j}$ are agents $i$ and $j^{\prime}$ s monetary payoffs, respectively
- $\frac{1}{1-r}$ is the elasticity of substitution
- $r \rightarrow 0: u_{i}=\alpha \pi_{j}+(1-\alpha) \pi_{i}$
- In the Shayo (2009) model, the other-regarding preference parameter $\alpha$ is a function of the social distance d between the two agents with $\frac{\partial \alpha}{\partial \mathrm{d}}<0$


## Theoretical Environment

$$
d_{i j}=\sqrt{\sum_{h} w^{h}\left(q_{i}^{h}-q_{j}^{h}\right)^{2}}
$$

- $h$ indexes different social groups that agents can belong to
- $q_{i}^{h}$ and $q_{j}^{h}$ denote the quality or attribute of agents $i$ and $j$, respectively, along dimension $h$
- $w^{h}$ denotes how much dimension $h$ matters to agent $i$
- Allows for any number of $h>0$ social groups
- Based on demographic characteristics like gender, ethnicity, age, etc.
- Based on preferences and experiences like vegans, return migrants, etc.
- $d_{i j}$ changes when:
- Attributes of the agents $\left(q_{i}^{h}\right.$ and $\left.q_{j}^{h}\right)$ change
- Attention paid to the different dimensions, $w^{h}$, changes


## Research Design

- $2 \times 2$ subject design
- Along one dimension ( $h=$ ethnicity):
- Subject is either matched with others from his own ethnic group (Ingroup)
- Or from the other ethnic group (Outgroup) to play several economic games
- Along the other dimension ( $h=$ migrant $)$ :
- Half of subjects are primed to activate migrant identity prior to playing games (Migrant)
- And the other half are not primed on any particular identity (Neutral)
- All subjects are return migrants
- Priming allows us to randomize
- Study the behavior of specific identities without a selection effect, which might occur when comparing subjects in different groups (e.g. migrant versus non-migrant)
- All subjects are randomly assigned to one of four treatment groups [figure]


## Priming Intervention

- Exposure to stimulus (e.g. a survey) leads to a change in behavior
- Priming can make specific social identity salient (thereby changing behavior)
- Gender, ethnicity, religion, politics, past behavior
- Affect outcomes like other-regarding preferences and altruism [Chen et al., 2014; Benjamin et al., 2016]
- Migrant prime
- $\approx 20$ minute questionnaire on subject's migration history and experience
- Followed by 4 migration-related generic photographs + structured conversation
- Neutral prime
- $\approx 20$ minute questionnaire on subject's education history and school experience
- Followed by 4 generic photographs of nature + structured conversation

Table B2: Order of Lab Activities Experienced by Subjects
Panel A: Migration treatment

1. Survey of demographic characteristics + cognitive test $\quad 12.08$
2. Migration priming questions 22.66
3. Migration pictures + conversation 3.89
4. Economic game: DG 3.83
5. Economic game: PGG_NP 10.51
6. Economic game: PGG_EP 8.85
7. Economic game: PGG_AP 13.65
8. Neutral priming questions 14.54
9 Survey of political and community participation 14.75
Total interview time (Avg.) 104.54
Panel B: Neutral treatment
9. Survey of demographic characteristics + cognitive test $\quad 12.39$
10. Neutral priming questions 15.15
11. Neutral pictures + conversation $\quad 2.40$
12. Economic game: DG 3.66
13. Economic game: PGG_NP 10.37
14. Economic game: PGG_EP 8.63
15. Economic game: PGG_AP 13.56
16. Migration priming questions 20.16
17. Survey of political and community participation 15.94
Total interview time (Avg.)
101.97

Notes: Panel A (B) includes subjects in $I M$ and $O M$ ( $I N$ and $O N$ ) treatment groups.

## Economic Games

- Dictator Game [screenshots]
- Agent $i$ receives 200 NPR, and decides how much of that to give it to agent $j$
- Non-strategic game and the amount given measures the level of altruism
- $x^{*}=\alpha E$, which is increasing in $\alpha$
- Public Goods Game [screenshots]
- Agents $i$ and $j$ each get 200 NPR endowment, and each independently decide how much to contribute to public pot
- Amount in the public pot is multiplied by 1.5 and redistributed equally
- Each agent wins the amount initially kept (not contributed to pot) plus the amount redistributed
- The amount contributed by agent $i$ to the pot measures the level of cooperation
- $x^{*}$ is increasing in $\alpha$ (as well as beliefs $\bar{x}_{j}$ about the other player's contribution)

$$
x^{*}=\frac{\alpha\left(\frac{\gamma}{1-\gamma}\right)^{\frac{1}{1-r}}\left(E+\gamma \bar{x}_{j}\right)-(1-\alpha)\left[E-(1-\gamma) \bar{x}_{j}\right]}{(1-\alpha) \gamma+\alpha(1-\gamma)\left(\frac{\gamma}{1-\gamma}\right)^{\frac{1}{1-r}}}
$$

## Economic Games

- Public Goods Game [examples]
- Even when $\alpha=0$, both agents $i$ and $j$ can be better off choosing $x>0\left(x^{*}=0\right)$
- For this, it requires agents $i$ and $j$ to coordinate and "cooperate"
- Suppose, you put $x_{i}>0$ but the other person reneges on the promise and instead contributes $x_{j}=0$, then you will be worse off than when you contributed $x=0$
- Does the other person have any benefit from reneging? Yes [examples]
- This is the example of a free-riding problem. Above, agent $j$ is free-riding off agent $i$
- Nash equilibrium $=x_{i}^{*}=x_{j}^{*}=0$
- This is the example of "tragedy of the commons"
- But when $\alpha>0$, even if the face of risk of free-riding, agents contribute $x^{*}>0$
- This also explains the findings why ethnic diversity is negatively correlated with public goods provisions, and why more homogenous society have better managed public goods


## Economic Games

- Public Goods Game with Punishment [screenshots]
- Same rule as Public Goods Game except
- All subjects play with someone from a different ethnic group
- If subjects contribute too little to the pot, their payoff is reduced by some amount ( 50 NPR )
- Not told how much is too little, but that this punishment threshold is determined by a third party arbiter
- Subject is allowed to choose an arbiter (2 choices)
- Someone from the same ethnic group or from a different ethnic group
- Theoretical predictions for the subjects arbiter choice decision are not straightforward
- Depends on $\alpha$ and beliefs about what the match's contribution in different scenarios
- Prediction figure in an example situation
- Running a simulation (by randomly choosing $\alpha, \bar{x}_{I}, \bar{x}_{O}$ ), for an increase in $\alpha$, it is more likely that the arbiter choice will change from ingroup to outgroup than from outgroup to ingroup
- $14 \%$ ingroup to outgroup, $3 \%$ outgroup to ingroup, $83 \%$ no change.


## Subject Recruitment

- Study conducted between June and July 2022
- Subjects are male return migrants
- Study sites located across 6 Eastern districts of Nepal [figure]
- Sample size: 633 (317 Brahmin-Chhetri and 316 Janajati) [table]
- Randomization protocols and balance checks [table]
- Implementation of priming intervention [results]
- Implementation quality checks [table]
- Subject characteristics [table]


## Results- Dictator Game

- Neutral treatment
- Ingroup: 61 NPR
- Outgroup: 49 NPR
- Baseline co-ethnic bias: 12 NPR ( $\approx 24 \%$ ) ( $p=0.0269$ )
- Migrant treatment
- No difference between ingroup and outgroup
- Diff-in-diff estimate: 12.52 NPR = 0.0969)



## Results- Public Goods Game

- Neutral treatment
- Ingroup: 82 NPR
- Outgroup: 58 NPR
- Baseline co-ethnic bias: 30 NPR ( $\approx 40 \%$ ) ( $p=0.0010$ )
- Migrant treatment
- No difference between ingroup and outgroup
- Diff-in-diff estimate: 27.20 NPR $=0.0109$ )
- Beliefs about match's actions correlated with the subject's own action ( $r=0.57$ )



## Results- Arbiter Choice

- Neutral treatment
- Ingroup arbiter: 58.6\%
- Migrant treatment
- Ingroup arbiter: 47.26\%
- $P$-value of this diff. estimate $=0.0140$



## Additional Results- Effect of punishment

- Difference in contribution between with and without punishment (within-subject)
- In all 4 treatments, contribution is higher with (exogenous) punishment than without punishment
- All p-values < 0.0001
- In all 4 treatments, contribution is higher with (arbiter) punishment than with exogenous punishment
- All p-values < 0.005



## Results- Summary

- In status quo, we observe co-ethnic bias in both altruistic and cooperative behavior ( $\approx 20$ to $40 \%$ )
- Migrant prime eliminates ingroup bias in both strategic and non-strategic environments
- Subjects are also more willing to choose an outgroup arbiter under the Migrant treatment
- Comparing these results to our theoretical model, it suggest that social distance (and therefore $\alpha$ ) between subjects in OutxMig treatment is similar to that in the Ingroup treatments
- Meaning that the migrant prime successfully reduces social distance between the different ethnic groups
- Lends evidence to the idea that migrant experience can create a "unifying" identity that reduces ethnic tensions
- Vote patterns by migration [figure]


## Results- Summary

- Punishment increases cooperation
- Type of punishment mechanism matters
- When another person is determining whether or not subjects are punished, subjects increase their cooperation even more than when the punishment is determined exogenously
- Punishment mechanisms in the Public Goods Game can increase cooperation to the extent that ingroup bias is essentially "masked"
- Migrant priming can have similar (though weaker) effect on cooperation as punishment mechanism


## Questions/comments?

Thank you!
[sleshshres@gmail.com]

For the purpose of this study, we have divided all Nepali into 6 groups based on their ethnicity and caste. These 6 groups are:

- Brahmin-Chhetri
- Madhesi
- Newars
- Janajati
- Dalit
- Other minorities

Which of the above groups do you belong to?


$\underset{ }{ }$ High ethnic diversity Low ethnic diversity

Table B1: Characteristics of Foreign Employment Permits

|  | $2017-2019$ | 2017 | 2018 | 2019 |
| :--- | :---: | :---: | :---: | :---: |
|  | $(1)$ | $(2)$ | $(3)$ | $(4)$ |
| No. of permits issued | $1,737,636$ | 638,957 | 607,002 | 491,677 |
|  |  |  |  |  |
| Male | $94.4 \%$ | $94.8 \%$ | $94.6 \%$ | $93.7 \%$ |
| Age (in years) | 31.1 | 31.0 | 30.7 | 31.7 |
| Unskilled occupation $^{\dagger}$ | $55.8 \%$ | $52.2 \%$ | $59.5 \%$ | $56.0 \%$ |
| Monthly salary (in 2017 NPR) $^{\text {Length of validity (in years) }}$ | 45,321 | 56,949 | 38,123 | 39,096 |
|  | 2.1 | 2.2 | 2.1 | 2.0 |
| Source province: Province 1 | $23.0 \%$ | $22.8 \%$ | $23.0 \%$ | $23.2 \%$ |
| Source province: Province 2 | $26.0 \%$ | $26.7 \%$ | $26.4 \%$ | $24.6 \%$ |
| Destination country: GCC | $78.6 \%$ | $77.2 \%$ | $74 \%$ | $86 \%$ |
| Destination country: Malaysia | $17.1 \%$ | $19.4 \%$ | $21.8 \%$ | $8.4 \%$ |

Notes: ${ }^{\dagger}$ Other occupation categories are: skilled, semi-skilled, high-skilled, and professional.

|  |  | Ingroup <br> Matching |  | Outgroup <br> Matching <br>  |  |
| :--- | :---: | ---: | ---: | ---: | ---: |
|  |  | $($ Out $)$ |  |  |  |

Notes: Number of Brahmin-Chhetri (B-C) and Janajati (J) subjects in each treatment displayed in cells.

(a) $\overline{x_{O}}=10$

(d) $\overline{x_{O}}=110$

(b) $\overline{x_{O}}=50$

(e) $\overline{x_{O}}=150$

(c) $\overline{x_{O}}=90$

(f) $\overline{x_{O}}=190$

|  | All <br> sample <br> $(1)$ | Brahmin-Chhetri <br> only <br> $(2)$ | Janajati <br> only <br> $(3)$ |
| :--- | :---: | :---: | :---: |
| Site 1: Jhapa district | 228 |  |  |
| Site 2: Morang district | 48 | 112 | 116 |
| Site 3: Dhankuta district | 62 | 28 | 20 |
| Site 4: Sunsari district | 131 | 37 | 25 |
| site 5: Saptari district | 48 | 60 | 71 |
| Site 6: Udayapur district | 116 | 24 | 24 |
|  |  | 56 | 60 |
| Total sample | 633 | 317 | 316 |





|  | InMig vs. OutNeut (1) | InMig vs. InNeut (2) | InMig vs. OutMig (3) | OutNeut vs. InNeut (4) | OutNuet vs. OutMig (5) | IngNeut vs. OutMig (6) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age | 0.494 | 0.546 | 0.329 | 0.194 | 0.739 | 0.118 |
| Married | 0.177 | 0.732 | 0.072*** | 0.311 | 0.648 | 0.142 |
| Education: 5 or above | 0.586 | 0.191 | 0.804 | 0.067*** | 0.429 | 0.287 |
| Education: 10 or above | 0.906 | 0.589 | 0.906 | 0.511 | 1.000 | 0.511 |
| Score in mathematics test (out of 10) | 0.419 | 0.153 | 0.334 | 0.533 | 0.886 | 0.625 |
| Years since last return | 0.452 | 0.979 | 0.547 | 0.452 | 0.168 | 0.579 |
| Number of years abroad | 0.004*** | $0.046^{* *}$ | 0.014** | 0.404 | 0.684 | 0.665 |
| \% Worked in GCC | 0.552 | 0.381 | 0.183 | 0.780 | 0.462 | 0.647 |
| \% Worked in Malaysia | 0.265 | 0.306 | 0.214 | 0.925 | 0.898 | 0.824 |
| Numer of Nepali co-workers | 0.166 | 0.414 | 0.822 | 0.377 | 0.155 | 0.372 |
| \% from own ethnic group | 0.151 | 0.222 | 0.072*** | 0.875 | 0.725 | 0.620 |
| Number of Nepali roommates | 0.163 | 0.305 | 0.531 | 0.480 | 0.335 | 0.653 |
| \% from own ethnic group | 0.547 | 0.386 | 0.249 | 0.807 | 0.591 | 0.759 |
| \% Lend money to Nepali migrants | 0.606 | 0.142 | 0.048** | 0.342 | 0.143 | 0.606 |
| Number of Nepalis lend money to | 0.030** | 0.395 | 0.702 | 0.236 | 0.085*** | 0.650 |
| \% from own ethnic group | 0.995 | 0.091*** | 0.130 | 0.095*** | 0.134 | 0.825 |
| Injury or illness | 0.903 | 0.367 | 0.342 | 0.435 | 0.284 | 0.064*** |
| Borrowed money from Nepali migrants | 0.726 | 0.762 | 0.490 | 0.513 | 0.298 | 0.698 |
| Member of informal savings groups | 0.346 | 0.661 | 0.836 | 0.168 | 0.251 | 0.817 |
| Member of migrant organization | 1.000 | 0.743 | 0.359 | 0.743 | 0.359 | 0.550 |
| Member of return migrant associations | 1.000 | 0.783 | 1.000 | 0.783 | 1.000 | 0.783 |
| Member of a neighborhood committee | 0.909 | 0.534 | 0.818 | 0.462 | 0.730 | 0.696 |
| Member of professional associations/unions | 0.911 | 0.953 | 0.501 | 0.957 | 0.575 | 0.539 |
| Member of a political party | 0.681 | 0.912 | 0.347 | 0.763 | 0.597 | 0.405 |
| Member of an ethnic organization | 0.630 | 0.469 | 0.751 | 0.228 | 0.870 | 0.297 |
| Participated in return migrant programs | 0.246 | 0.243 | 0.331 | 0.020** | $0.034^{* *}$ | 0.846 |
| Participated in ethnic rallies | 0.811 | 0.780 | 0.721 | 0.605 | 0.906 | 0.525 |
| Participated in political rallies | 0.299 | 0.515 | 0.086*** | 0.698 | 0.497 | 0.285 |
| Participated in meetings of local government | 0.376 | 0.777 | 0.804 | 0.546 | 0.524 | 0.972 |
| Voted in Nepali election | 0.585 | 0.566 | 0.893 | 0.978 | 0.681 | 0.660 |
| SUR joint test $p$-value | 0.146 | 0.563 | 0.436 | 0.569 | 0.409 | 0.900 |

Notes: The table reports the $p$-values of the $t$-tests of the difference in means between treatment groups. $p$-value at the bottom of the table shows joint significance of the coefficients in the corresponding column from SUR estimation. Significant at the ${ }^{* * *} 1 \%,{ }^{* *} 5 \%$, and * $10 \%$ levels.

## Natural Language Processing

- Recorded conversation between subject and enumerator during one part of the priming session
- Randomly selected $50 \%$ of the recordings from each of the 4 treatments (with each ethnic group)
- 321 recordings, with an average duration of 3.14 minutes per recording
- Unsupervised Structural Topic Model (STM) to identify a set of $k=4$ topics within our transcript data

| Topic | Top word stems |
| :--- | :--- |
| Nature | Highest Prob: vegetable, forest, use, went, remember, river, farm <br> FREX: green, grass, tomato, fish, cultivate, vegetable, river |
| Migration-social | Highest Prob: eat, work, use, money, time, home, friend <br> FREX: country, family, happy, festival, earn, abroad, foreign |
| School | Highest Prob: remember, school, look, use, play, time, friend <br> FREX: homework, study, teach, read, teacher, check, sing |
| Migration-work | Highest Prob: eat, use, money, company, time, send, food <br> FREX: shift, give, company, hour, meal, cook, hotel |
| Notes: The four topics (ex-post labeled by the research team) are generated by an unsupervised |  |



Notes: The figure above plots the expected topic proportion and $95 \%$ confidence interval for each proforma topic, by the subject's migrant treatment status (i.e. those who received a migrancy priming vs. a neutral priming prior to playing economic games). Coefficients greater than zero indicate topics that are more frequently raised by subjects in the migrant treatment, while those less than zero indicate topics that are more frequently raised by subjects in the neutral treatment.

STM ( $k=4$ ) following the method of Roberts et al. (2016), which lists the highest probability and FREX words in each topic. For more details, see Roberts et al. (2016).

|  | All <br> sample <br> $(1)$ | Brahmin-Chhetri <br> only <br> $(2)$ | Janajati <br> only |
| :--- | :---: | :---: | :---: |
|  |  |  | $(3)$ |
| Panel A: Demographic characteristics |  |  |  |
| Age | 36.35 | 36.52 | 36.19 |
| Married | $86.6 \%$ | $86.4 \%$ | $86.7 \%$ |
| Education: $5^{\text {th }}$ grade or above | $94.2 \%$ | $98.1 \%$ | $90.2 \%$ |
| Education: 10 ${ }^{\text {th }}$ grade or above | $64.8 \%$ | $79.2 \%$ | $50.3 \%$ |
| Score in mathematics test (out of 10) | 6.75 | 7.08 | 6.42 |
|  |  |  |  |
| Panel B: During migration |  |  |  |
| Number of years abroad | 7.14 | 7.29 | 6.98 |
| \% Worked in GCC | $68.9 \%$ | $71.0 \%$ | $66.8 \%$ |
| \% Worked in Malaysia | $27.3 \%$ | $24.3 \%$ | $30.4 \%$ |
| Number of Nepali co-workers ${ }^{\dagger}$ | 18.40 | 23.34 | 13.43 |
| $\quad$ \% from own ethnic group | $45.9 \%$ | $41.5 \%$ | $50.2 \%$ |
| Number of Nepali roommates $\dagger$ | 3.99 | 3.37 | 4.61 |
| $\quad$ \% from own ethnic group | $50.3 \%$ | $46.7 \%$ | $53.7 \%$ |
|  |  |  |  |
| Panel C: Since returning back |  |  |  |
| Years since last returning to Nepal | 3.06 | 2.90 | 3.23 |
| Member of return migrant associations | $4.9 \%$ | $6.3 \%$ | $3.5 \%$ |
| Member of a neighborhood committee | $38.2 \%$ | $39.7 \%$ | $36.7 \%$ |
| Member of a political party | $22.0 \%$ | $26.5 \%$ | $17.4 \%$ |
| Participated in return migrant programs | $15.0 \%$ | $17.0 \%$ | $13.0 \%$ |
| Participated in ethnic rallies | $32.7 \%$ | $26.2 \%$ | $39.2 \%$ |
| Participated in political rallies | $40.1 \%$ | $39.4 \%$ | $40.8 \%$ |
| Participated in meetings of local government | $72.7 \%$ | $74.4 \%$ | $70.9 \%$ |
| Voted in Nepali election | $78.7 \%$ | $80.4 \%$ | $76.9 \%$ |
| Observations | 633 | 317 | 316 |

[^0]|  |  |  |  | Mean |
| :---: | :---: | :---: | :---: | :---: |
| Ingrp | Mig | Ingrp | dep. var. |  |
| (OMig |  |  | (OutNeut) |  |
|  | $(1)$ | $(2)$ | $(3)$ | $(4)$ |


|  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Time spent on (in mins.): |  |  |  |  |
|  |  |  |  |  |
| Migration priming questions | -0.08 | 1.55 | 1.90 | 20.21 |
|  | $(1.084)$ | $(1.130)$ | $(1.637)$ |  |
| Neutral priming questions | 0.20 | -0.95 | 0.67 | 15.04 |
|  | $(0.883)$ | $(0.850)$ | $(1.319)$ |  |
| Economic game: DG | 0.19 | 0.11 | 0.13 | 3.56 |
|  | $(0.206)$ | $(0.186)$ | $(0.352)$ |  |
| Economic game: PGG_NP | -0.28 | -0.13 | 0.5 | 10.51 |
|  | $(0.503)$ | $(0.502)$ | $(0.679)$ |  |
| Economic game: PGG_EP | -0.38 | -0.06 | 0.53 | 8.83 |
|  | $(0.362)$ | $(0.378)$ | $(0.519)$ |  |
| Economic game: PGG_AP | -0.27 | 0.00 | 0.20 | 13.69 |
|  | $(0.626)$ | $(0.658)$ | $(0.901)$ |  |
| Survey of demo. charac. + cog. test | 0.13 | -0.64 | 0.66 | 15.76 |
|  | $(0.700)$ | $(0.687)$ | $(0.929)$ |  |
| Survey of community participation | 0.35 | -1.12 | -0.14 | 12.33 |
|  | $(1.002)$ | $(0.730)$ | $(1.178)$ |  |
| Total interview time |  |  |  |  |
|  | -0.21 | 0.14 | 4.86 | 102.1 |

Notes: The table reports results from the OLS regression $Y=c+\delta$ Ingrp $+\theta$ Mig $+\beta$ IngrpxMig $+\epsilon$, where Ingrp (Mig) is an indicator variable for whether the subject is matched with someone from the own ethnic group (is in the Migrant treatment). The robust standard errors are reported in parentheses. Significant at the ${ }^{* * *} 1 \%,^{* *} 5 \%$, and * $10 \%$ levels.

Figure B1: Correlation between Ethnic Identity of Candidates and Voters

Panel A: All municipalities


## Figure B1: Correlation between Ethnic Identity of Candidates and Voters

Panel B: Separately by high and low migration rates


Notes: Each dot in panels A and B represents a municipality. The light (dark) shaded dots in panel B represent municipalities in districts with migration rates that are above (equal or below) the median district-level migration rate in Nepal between 2017 and 2019 (based on the DOFE data) Vote share (in the x -axis) is calculated from the 2017 municipal election data; population share (in the $y$-axis) is based on the voting-age ( 18 years or older) population in 2017 (calculated from the 2011 Nepal Census data).

K km01 > form_1
ZGame
Slide 5



$\leftarrow \quad \rightarrow$
$\leftarrow$
$\rightarrow$
$\leftarrow$
$\rightarrow$


| K km01 > form_1 | a : $\rightarrow$ \% |
| :---: | :---: |
| GAME D: Punishment by third party, assigned match <br> जनजाति <br> ब्राह्मण / क्षेत्री <br> ( के सि) |  |
| तपाईको पेसा घटाउने वा नपटाउने | सा हातेका छैन्नू। यि तेसो व्यकि कि <br> क्ति |
| $\leftarrow$ | $\rightarrow$ |

Example 1


Example 1


Example 1



Example 2


Other person

Example 2


Example 2


Example 3


Example 3


Example 3


Example 3


You


200 NPR + 150 NPR = 350 NPR


Other person


[^0]:    Notes: ${ }^{\dagger}$ Based on their last job abroad.

