Religious Identity Choice: Evidence from Indian Names

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Cultural Change in Heterogeneous Societies

- Culture (informal rules, behavior, and beliefs about appropriate or acceptable behavior): determinant of economic and social behavior.

- Key question in study of cultural change: whether rules and beliefs are persistent, or if evolve quickly in response to the economic and institutional environment?

- Present measures of cultural change rely on surveys, however, limiting the longitudinal and spatial scale of investigation.

Our approach

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  - Measure and describe cultural change and persistence at an unprecedented longitudinal and spatial scale, across the whole of India since its independence.

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  - Choosing children's names is a transfer of parent values
    - Pure *choice* vs food or marriage decisions where there are constraints
  - Names key aspect of an individual's identity and code information about an individual's country, gender, religion, social rank, occupation, caste.
  - e.g. Economic returns to assimilating: native-sounding or neutral name (Abramitzky, Boustan, Erikkson 2020).
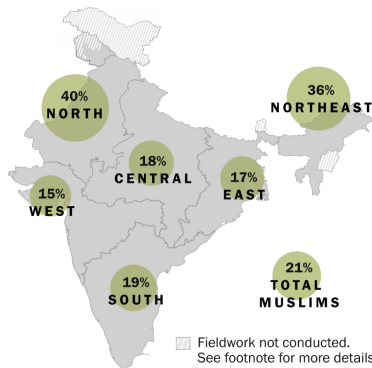
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- In India, names signal Hindu or Muslim religious identity.

Religious Cleavages in India

- India: 933 million Hindus; 204 million Muslims

- India has 3rd largest Muslim population (after Indonesia and Pakistan)

- Indian Muslims face high levels of discrimination.

- Upward mobility of Muslims in on the decline with estimates below comparable estimates for Black men in the US (Asher, Novosad and Rafkin 2020)

Overall, one-in-five Muslims say they have personally faced religious discrimination recently, but views vary by region

% of Indian Muslims who say they have personally faced religious discrimination in the past 12 months

40% NORTH

36% NORTHEAST

18% CENTRAL

17% EAST

15% WEST

19% SOUTH

21% TOTAL MUSLIMS

Fieldwork not conducted. See footnote for more details.

Religious Identity Choice in Practice

Muhammed Yusuf Khan aka Dilip Kumar (1922-2021)

Voter Rolls Data: full names of approximately 500mn Indian voters, their birth year, their father/husband name and their dwelling

Assembly Constituency No and Name : 7-BAWANA (SC)   Part No.- : 1

Section No and Name : 1-COMMUNITY CENTRE SHIV MANDIR IIND STAND,VILLAGE PUNJAB KHOR

1 NEJ0002824	2 NEJ0002832	3 NEJ0002840
Name : ▮▮▮ Father's Name : ▮▮▮ House Number : 1 Age : 74 Sex : MALE — Photo is Available	Name : ▮▮▮ Husband's Name : ▮▮▮ House Number : 1 Age : 73 Sex : FEMALE — Photo is Available	Name : ▮▮▮ Husband's Name : ▮▮▮ House Number : 1 Age : 40 Sex : FEMALE — Photo is Available
4 KQF0762898	5 NEJ0002899	6 NEJ0002907
Name : ▮▮▮ Father's Name : ▮▮▮ House Number : 1 Age : 38 Sex : MALE — Photo is Available	Name : ▮▮▮ Father's Name : ▮▮▮ House Number : 2 Age : 46 Sex : MALE — Photo is Available	Name : ▮▮▮ Husband's Name : ▮▮▮ House Number : 2 Age : 42 Sex : FEMALE — Photo is Available
7 NEJ5669486	8 NEJ5616149	9 NEJ1996933
Name : ▮▮▮ Father's Name : ▮▮▮ House Number : 3 Age : 72 Sex : MALE — Photo is Available	Name : ▮▮▮ Father's Name : ▮▮▮ House Number : 3 Age : 64 Sex : MALE — Photo is Available	Name : ▮▮▮ Husband's Name : ▮▮▮ House Number : 3 Age : 64 Sex : FEMALE — Photo is Available

Data: Voter Rolls

- Data across 24 States / Union Territories
  - States + UT we have: Andhra Pradesh, Arunachal Pradesh, Assam, Bihar, Chandigarh, Daman, Delhi, Gujarat, Haryana, JK, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Odisha, Puducherry, Punjab, Rajasthan, Sikkim, Tripura, Uttar Pradesh, Uttarakhand
  - States we don't have: West Bengal, Tamil Nadu, Telangana, Himachal Pradesh, Mizoram, Nagaland, and Goa

- Individuals not in data if name not parsed correctly, or untranslated from Devangiri script, or $age < 18$ or $age > 100$

- High voter registration rates over 90%.

Measuring Religious Identity Choices

Use machine learning models adapted to Indian names
(Chaturvedi and Chaturvedi 2022)

- Classifier uses the characters in name and their ordering

- Training dataset:
    1. Rural Economic & Demographic Survey (REDS): 98,000+ unique names
    2. Manually coded Rural Household dataset with 12,000+ unique names

- Precision: 98% for Hindu Names and 93% for Muslim Names based on a test
  set of names from REDS where we have the true religion of the individual

Religious Identity Choice Index (RICI)

- Step 1: Classify as Hindu or Muslim using parent's name.

- Step 2: Run the Hindu/non-Hindu (Muslim/non-Muslim) logistic character-based model.

- Religious Identity Choice Index: a probability from 0 to 1 that an individual who is characterized as Muslim/Hindu has a name that is distinctively Muslim/Hindu.
  - Values closer to 1 imply religious distinctiveness
  - Values closer to 0 imply religious ambiguity

# What does a change in RICI mean?

Hindu names

- Jagdish Chand Bhara (0.996)
- Ankit Gupta (0.897)
- Harshan Kumar (0.478)
- Mohit Hasija (0.223)

Muslim names

- Yasin Malik (0.987)
- Arshad Husain (0.887)
- Samar Mujtaba (0.480)
- Samit Anwar (0.213)

Voter Name	Parent Name	Religion	Child RICI	Parent RICI	I-RICI
Vishesh Kumar	Vinod Kumar	Hindu	0.931	0.961	-0.030
Kapil Kohli	Jagdish Chand Kohli	Hindu	0.290	0.961	-0.671
Dilbagh Ali	Irfan Ali	Muslim	0.825	0.994	-0.169
Ashish Malik	Yasin Malik	Muslim	0.253	0.987	-0.734

Religious Identity Choice Index Over Time
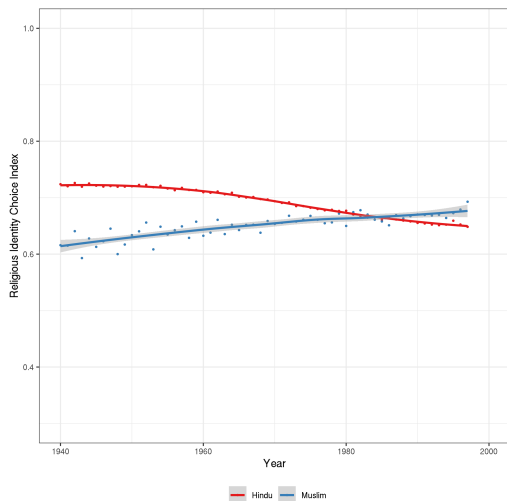
- Muslim names have averaged between 0.6 and 0.7, increasing with time

- Hindu names have averaged between 0.75 and 0.65, decreasing with time

Our focus: within family changes

- We observe nuclear family: parent's name of each voter and name of their siblings

- We only focus on men voters because for women voters the file contains their husband's names instead of parent's name

- Ultimately we focus on approximately 250mn Indian male voters who we have age and parent information

Intergenerational RICI Over Time

Intergenerational Religious Identity Choice Index: Voter's RICI minus Parent's RICI.

- > 0 indicate a more religiously distinctive name than the parent
- < 0 indicate a more religiously ambiguous than the parent
- $= 0$ indicate the same level of religious distinctiveness for the child and parent
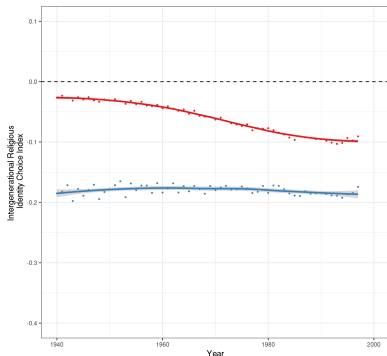
- Overall child names are less religiously distinctive than their parent's names (consistently averaging below 0)

- Hindu child names have become more religiously ambiguous relative to parents

- Muslim child names have remained at a similar lower level of religious distinctiveness relative to their parents

Parent and Child Comparisons
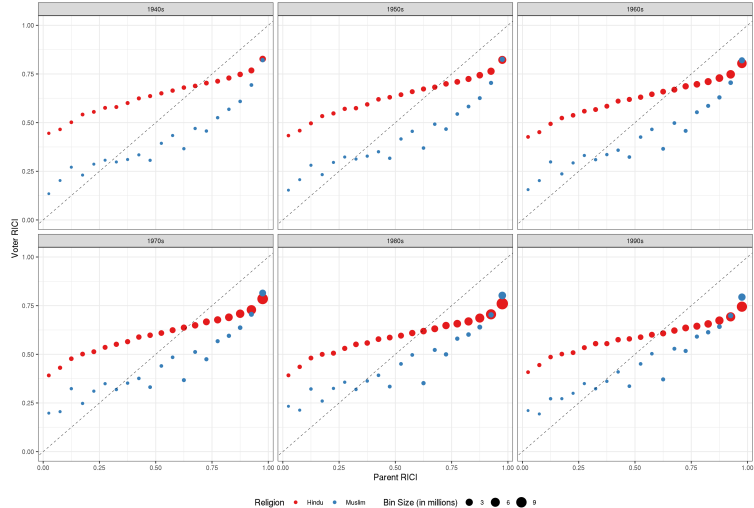
The Political Salience of 1992

- 1992 was characterized by the culmination of a set of political events in India
  - Mandal Commission protests
  - Economic liberalization
  - Decentralization
  - Demolition of the Babri Masjid and associated religious strife

Constructing a Family-Panel Dataset

Family Name	Year	Birth	Family RICI
Saroj Kumar	1987	0	0.931
Saroj Kumar	1988	0	0.931
Saroj Kumar	1989	0	0.931
Saroj Kumar	1990	0	0.931
Saroj Kumar	1991	1	0.981
Saroj Kumar	1992	0	0.981
Saroj Kumar	1993	1	0.818
Saroj Kumar	1994	0	0.818
Saroj Kumar	1995	0	0.818
Saroj Kumar	1996	0	0.818
Saroj Kumar	1997	0	0.818

- Observe every nuclear family

- Construct a panel dataset from 1987-1997 of nuclear families with at least one birth before and at least one birth after 1992

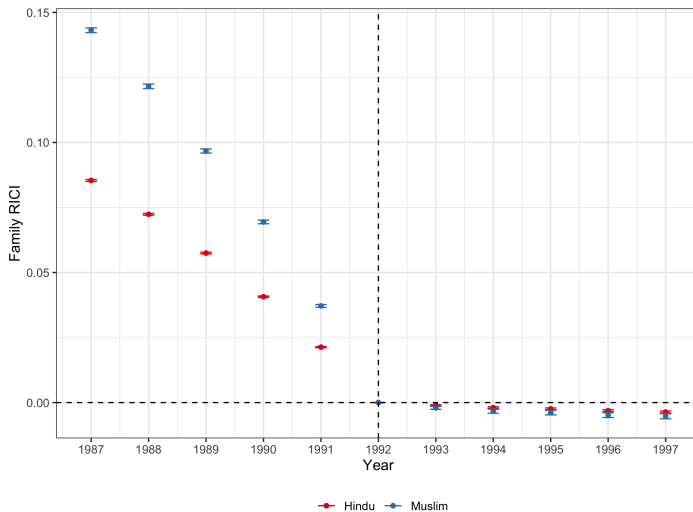- Over 3.2 million nuclear families

Event Study Estimation

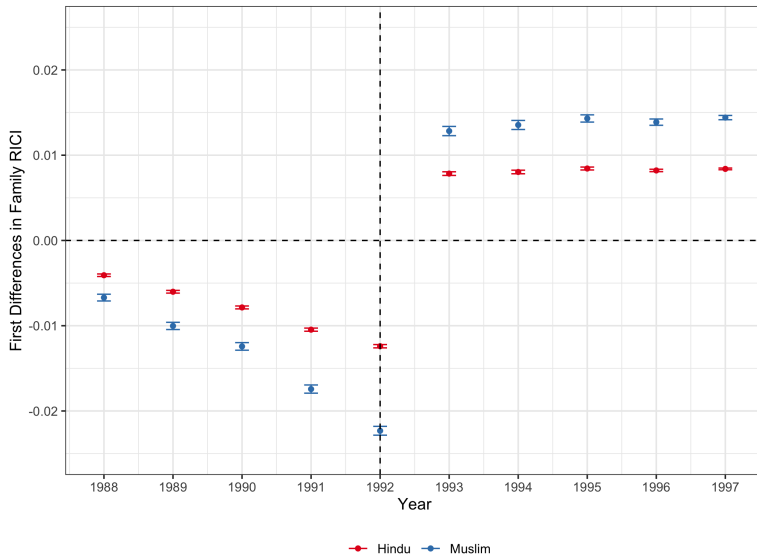$$FamilyRICI_{nt} = 1987\beta_1 + 1988\beta_2 + 1989\beta_3 + 1990\beta_4 + $$
$$1991\beta_5 + 1993\beta_6 + 1994\beta_7 + 1995\beta_8 + $$
$$1996\beta_9 + 1997\beta_{10} + \alpha_n + \epsilon$$

- α_n - nuclear family fixed effects
- Omitted year - 1992

Decreasing religious identity trend slows after 1992

Rate of change is greater for Muslims after 1992

Summary and Conclusion

- We assemble the first measure of cultural change at scale generationally, spatially, and longitudinally

- We find that Indian citizens are signalling their religious identity less over time but that this trend is slowed after 1992

- The brakes on secularization on names are stronger for Muslims than for Hindus
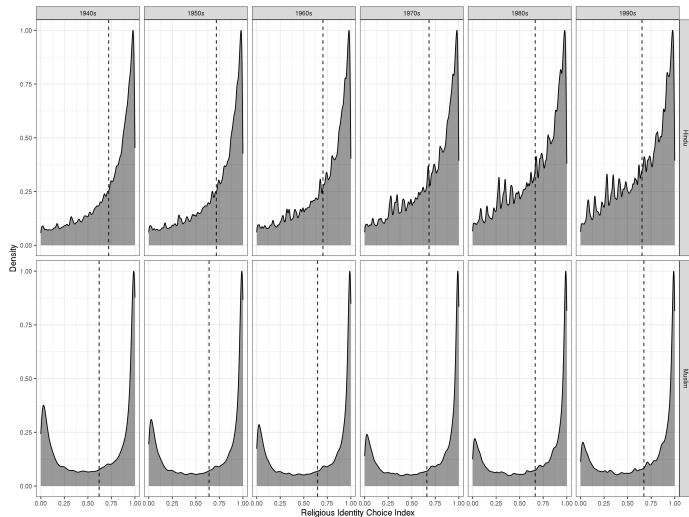
Next Steps

- Considering how neighborhood composition (e.g. Hindu-Muslim segregation, presence of other religious out-groups) influences the slowed secularization effect

- Studying how places with a history of violence experience differential naming patterns

- Examining how parents update names differently for sons and daughters

Thank you!

Density of RICI over time

Density of I-RICI over time