Mobilizing Identities
Experiments in India and Afghanistan on Religious Practice and Political Behavior

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Manipulation and Reductionism

- A good Mantra: "No causation without manipulation"
- Dispense with the common Dogma of reductionism
- Classic Example:
  - Incoherent: "What is the causal effect of being white on income/grades/happiness?"
  - But this does not imply that race does not play a role in generating these outcomes

- Reductionism, each scientific concept has:
  - its own separate estimate
  - its own separate empirical content

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What's the Problem?

- Some want to weaken the Mantra of "No causation without manipulation" in order theorize about race, gender, religion

- Others justify estimating causal mediation effects because they are needed to test theories—e.g., natural direct effect, pure/total direct effect.

- Assumptions needed to estimate natural mediation effects are usually implausible.

- Good work on the many possible assumptions need to identify the mediation effect—e.g., Robins and Greenland (1992); Pearl (2001); Robins (2003); Petersen, Sinisi, van der Laan (2006); Imai, Keele, Tingley (2010), . . .

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Keep the Mantra; Drop the Dogma

- The central issue is key parts of a scientific theory may not touch data in the way reductionism suggests.

- The Mantra should be kept: we need to be clear about what we are estimating.

- But our theories can have quantities that are not manipulatable, even in theory.

- We make progress the way science always has: finding cases where the theories make different predictions, falsification, triangulate, etc.

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- Extreme Reductionism: every scientific sentence has a full translation in sense-datum

- Moderate Reductionism: each scientific sentence has its own separate empirical content

- Moderate Holism: a scientific sentence need not imply empirical consequences by itself. A bigger cluster is usually needed.

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Philosophy of science is about as useful to scientists as ornithology is to birds.
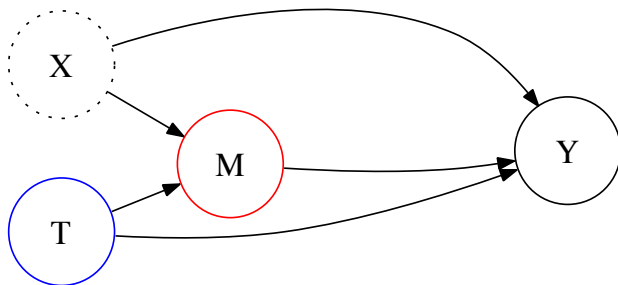
—Richard Feynman

Simple Graph
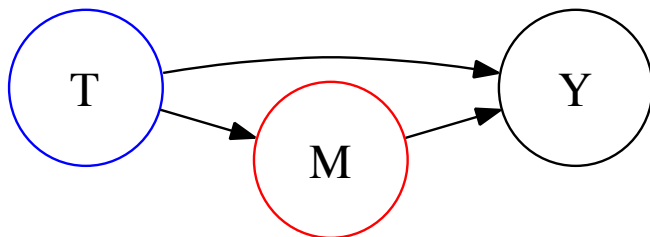
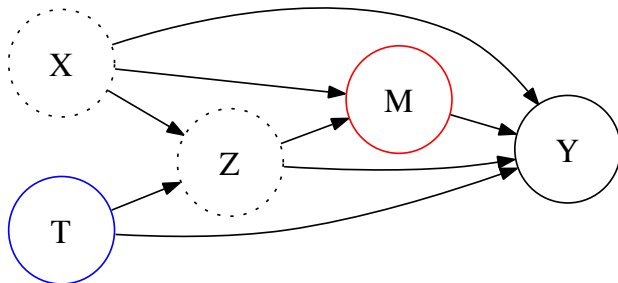T is a treatment, M is a mediator, Y is an outcome

Graph with Pre-Treatment Variables

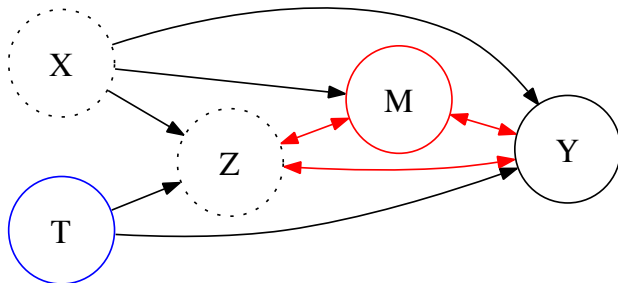X are possibly unobserved pre-treatment variables

Graph with Other Moderators

X are possibly unobserved pre-treatment variables
Z are possibly unobserved post-treatment variables

We Still Have Simplifications

X are possibly unobserved pre-treatment variables
Z are possibly unobserved post-treatment variables

Some Notation

- Binary treatment: $T_i \in \{0, 1\}$
- Mediator: $M_i \in \mathcal{M}$
- Outcome: $Y_i \in \mathcal{Y}$
- Pre-treatment covariates: $X_i \in \mathcal{X}$
- Post-treatment covariates: $Z_i \in \mathcal{Z}$
- Potential outcomes (standard case): Y_{i1}, Y_{i0},
  $Y_i = Y_{i1} T + Y_{i0}(1 - T)$
- Potential mediators: $M_i(t)$ where $M_i = M_i(T_i)$
- Potential outcomes: $Y_i(t, m)$ where $Y_i = Y(T_i, M_i(T_i))$

Defining Causal Mediation Effects

- Total Causal Effect:

    $\tau_i \equiv Y_i(1, M_i(1)) - Y_i(0, M_i(0))$

- Natural Indirect Effect:

    $\delta_i(t) \equiv Y_i(t, M_i(1)) - Y_i(t, M_i(0))$

    Causal effect of the change in M_i on Y_i that *would be* induced by treatment while holding treatment constant

- Controlled Effect of the Mediator:

    controlled $\equiv Y_i(t, m) - Y_i(t, m')$

    $m \neq m'$

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  $$\zeta_i(t) \equiv Y_i(1, M_i(t)) - Y_i(0, M_i(t))$$

- Causal effect of T_i on Y_i holding mediator constant at its potential value that would be induced when $T_i = t$: the natural direct effect (Pearl 2001) or the pure/total direct effect (Robins and Greenland 1992).

- Total effect equals mediation (indirect) effect + direct effect:

  $$\tau_i = \delta_i(t) + \zeta_i(1-t) = \frac{1}{2} \left\{ \delta_i(0) + \delta_i(1) + \zeta_i(0) + \zeta_i(1) \right\}$$

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Identification of Average Causal Mediation Effect

- Average Causal Mediation Effect (ACME):

  $$\overline{\delta}(t) \equiv \mathbb{E}(\delta_i(t)) = \mathbb{E}\left\{Y_i(t, M_i(1)) - Y_i(t, M_i(0))\right\}$$

- Issue: we can never observe $Y_i(t, M_i(1-t))$

- One assumption, Sequential Ignorability (e.g., Imai et al. 2010):

$$\left\{Y_i(t', m), M_i(t)\right\} \perp\!\!\!\perp T_i \mid X_i = x \tag{1}$$

$$Y_i(t', m) \perp\!\!\!\perp M_i(t) \mid T_i = t, X_i = x, \tag{2}$$

for $t, t' = 0, 1; 0 < \Pr(T_i = t \mid X_i = x)$ and
$0 < p(M_i = m \mid T_i = t, X_i = x), \forall\, x \in X$ and $m \in M$

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Sequential Ignorability Graph
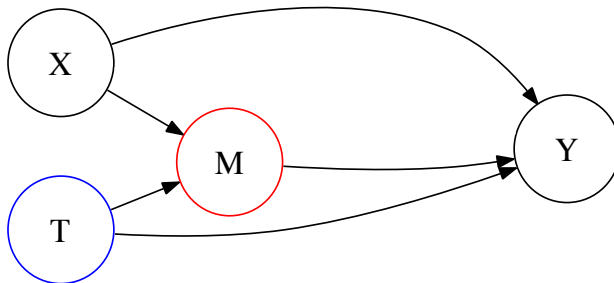
Pearl's (2001) Version of Sequential Ignorability

In order to identify $\bar{\delta}(t^*)$:

$$Y_i(t, m) \perp\!\!\!\perp M_i(t^*) \mid X_i = x, \tag{3}$$
$$p(Y(t, m) \mid X_i = x) \qquad \text{and} \tag{4}$$
$$p(M_i(t^*) \mid X_i = x) \qquad \text{are identifiable,}$$

for all $t = 0, 1$.

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for all $t = 0, 1$.

Other Post-Treatment Variables

$$\left\{ Y_i(t', m), M_i(t) \right\} \perp\!\!\!\perp T_i \mid X_i = x$$
$$Y_i(t, m) \perp\!\!\!\perp M_i(t) \mid T_i = t, Z_i = z, X_i = x \tag{5}$$

Equation 5 is not sufficient to identify ACME without further assumptions. Robins' (2003) "no-interaction" assumption:

$$Y_i(1, m) - Y_i(0, m) = B_i,$$

where B_i is a random variable independent of m

Post-Treatment DAG
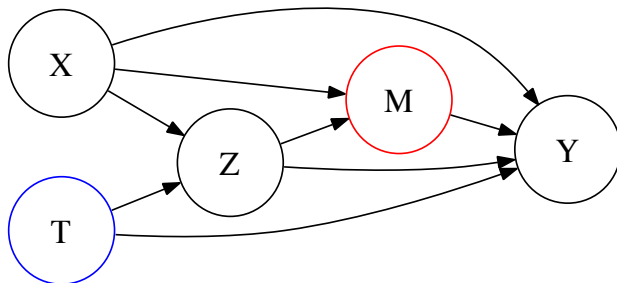
Nonparametric Bounds and Sensitivity Tests

- We derive sharp nonparametric bounds for ACME when the assumed assumptions do not hold

- The nonparametric bounds are uninformative when the assumptions are weakened

- We also derive nonparametric sensitivity tests to allow for partial weakening

Nonparametric Bounds

- Assume randomization of T:

  $$\{Y_i(t', m), M_i(t)\} \perp\!\!\!\perp T_i$$

- For Sequential Ignorability do not assume (2):

  $$Y_i(t', m) \perp\!\!\!\perp M_i(t) \mid T_i = t, X_i = x$$

- For Robins (2003), no longer assume:

  $$Y_i(1, m) - Y_i(0, m) = B_i,$$

  but still assume:

  $$Y_i(t, m) \perp\!\!\!\perp M_i(t) \mid T_i = t, Z_i = z, X_i = x$$

Nonparametric Bounds

In the case of binary M, Y:

$$\max \left\{ \begin{array}{r} -P_{001} - P_{011} \\ -P_{000} - P_{001} - P_{100} \\ -P_{011} - P_{010} - P_{110} \end{array} \right\} \leq \bar{\delta}(1) \leq \min \left\{ \begin{array}{r} P_{101} + P_{111} \\ P_{000} + P_{100} + P_{101} \\ P_{010} + P_{110} + P_{111} \end{array} \right\}$$

where $P_{ymt} \equiv \Pr(Y_i = y, M_i = m \mid T_i = t), \forall\, y, m, t \in 0, 1$

the bounds will always include zero

Sensitivity Tests

- The identification assumptions ensure that within each treatment group the mediator is assigned independent of potential outcomes:

$$\frac{\Pr\left(Y_i(t,m) \mid M_i = 1, T_i = t'\right)}{\Pr\left(Y_i(t,m) \mid M_i = 0, T_i = t'\right)} = 1$$

$\forall\, t, m$

- Sensitivity test: calculate sharp bounds for a fix deviation from this ratio

Ethnic Divisions

- Ethnic identities are often thought to be mobilized when it is in the interests of people to emphasize them (e.g., Posner 2005)

- Ethnic cleavages may arise because of
    - social realities ready to be politically mobilized
    - mobilization of interests that happen to be related to ethnicity

- An ethnic group may be mobilized in different ways:
    - some by direct appeals to the group's identity
      e.g., blacks in U.S.; Jatav sub-caste in UP
    - others by other more indirect appeals
      e.g., women in U.S.; larger caste groups (OBC) in UP

- Measures of ethnic fractionalization are not sensitive to these differences (e.g., Fearon 2003, Posner 2004)

Mobilizing Identities: Religion

- Examine the role of religion in India and Afghanistan
  Big cleavage in both countries

- Islam in South Asia is more formally structured than Hinduism

- Hindu priests have a very circumscribed role

- Mosques and temples play different political roles

Experiments

Use experiments to determine how/when identities can be mobilized

Experiments in different settings:

- In different states:
    - Tamil Nadu: communal divisions are not politicized
    - Karnataka: communal divisions are beginning to be politicized
    - Uttar Pradesh: communal divisions are highly politicized
    - Herat, Afghanistan: intense Sunni–Shiite tensions

- In different settings in the same state:
    - Outside of temples/mosques
    - Random surveys
    - Get-Out-The-Vote mobilization experiments

Mobilizing Religious Identities

Can Hindus and Muslims be mobilized by direct appeals to their identities? Does it vary by political context?

- Do co-religious leaders evoke greater confidence?
    - Outside of temples/mosques
    - Random surveys

- Do mosques play a different role than temples?
    - Outside of temples/mosques

- Can religious symbols politically mobilize supporters?
    - Get-Out-The-Vote mobilization experiments

Representation and Confidence Experiments, India

- Hindus do not have greater confidence in leaders using religious symbols

- Muslims do have greater confidence in leaders using religious symbols

- These Sunni/Hindu differences are present across states:
  - Tamil Nadu: communal divisions are not politicized
  - Karnataka: communal divisions are beginning to be politicized
  - Uttar Pradesh: communal divisions are highly politicized

Get-Out-the-Vote (GOTV) Experiments

For Hindus, GOTV results vary by electoral interests:

- Hindus can be mobilized using religious symbols, but only in states where it is in their electoral interest

Muslims can be mobilized using religious symbols, even where they do no have an electoral interest to highlight their identity:

- Tamil Nadu: communal divisions are not politicized
  - Muslims: are mobilized by direct appeals
  - Hindus: are not mobilized by direct appeals
- Karnataka: communal divisions are beginning to be politicized
  - Muslims: are mobilized by direct appeals
  - Hindus: are mobilized by direct appeals
- Uttar Pradesh: communal divisions are highly politicized
  - Hindus and Muslims are both mobilized

Simple Experiment, India

At a recent meeting celebrating India's democracy this leading politician (show photo) said:

> *"Politicians like me from different political parties try hard to represent the interests of the people who support us and vote for us."*

Do you have confidence [*Vishwas*] in what this person is saying? [yes,no,dk]

Example Photos: Tamil Nadu

Confidence in Uttar Pradesh

	Muslim	Hindu
Estimate	10.8%	2.3%
p-value	0.00	0.39

Confidence in Uttar Pradesh

	Muslim	Hindu
urban Aligarh		
Estimate	15.1%	3.79%
p-value	0.00	0.39
rural Kanpurl		
Estimate	12.6%	-1.20%
p-value	0.01	0.79

Tamil Nadu

	Muslim	Hindu
Estimate	12.1%	-5.09%
p-value	0.01	0.23

Karnataka

	Muslim	Hindu
Estimate	7.19%	-20.7%
p-value	0.26	0.00

Less Ambiguous Prompts

At a recent meeting celebrating India's democracy this [Muslim, Hindu] political leader said (show photo)

At a recent meeting celebrating India's democracy this [Muslim, Hindu] political leader whose religious beliefs are the same as yours said (show photo)

Even larger estimate:

	Muslim	Hindu
Estimate	18.1%	2.31%
p-value	0.00	0.57

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Representative Sample Uttar Pradesh

	Muslims	Hindus
Estimate	6.60%	1.86%
p-value	0.01	0.44

Get-Out-The-Vote (GOTV) Experiment

Three GOTV experiments:

- Tamil Nadu: 2011 legislative assembly election
- Karnataka: 2009 general election for the 15th Lok Sabha

With three arms:

- control: no contact prior to the election
- religious: receive GOTV appeal with religious picture
- secular: receive GOTV appeal with secular picture

GOTV Leader Appeal

This learned person [religious scholar] has written a book. The book says that Politics affects whether the government looks after the interests of people like you and the interests of your community. He urged everyone to VOTE!

He wrote that if you as a citizen want to have your input in making politics and government work for your community, you need to VOTE in order to send a message to those in power. Your interests and the interests of your community will not be attended to if you do not VOTE.

GOTV Tamil Nadu: Turnout

Effects relative to control

	Religious Symbols	No Religious Symbols
Hindus	-2.26%	-5.54%
	0.03	0.00
Muslims	2.58%	-5.71%
	0.03	0.00

GOTV Karnataka: Hindu Vote Proportions

	Religious	Secular	Control
Bharatiya Janata Party	0.44	0.32	0.36
Janata Dal–S	0.22	0.42	0.27
Congress	0.28	0.22	0.29

GOTV Karnataka: Muslim Vote Proportions

	Religious	Secular	Control
Bharatiya Janata Party	0.20	0.18	0.21
Janata Dal–S	0.18	0.03	0.26
Congress	0.59	0.70	0.44

Observational Data: Mosques and Temples

	Muslims	Hindus
Heard of Godhra train burning	24.6%	11.1%
Government is responsible for Gujarat riots	13.6%	2.2%

source: NES 2004

Imams and Elections in Afghanistan

- A qualitative study of 54 villages and 104 Mosques in and around Herat, Afghanistan

- Observing and recording campaign-related activities, particularly the role of imams

- Attending prayers and taking note of sermons

- Sunnite and Shiite imams play different roles in elections

Sunni and Shiite Imams and Elections

Consistent with the Literature:

- Sunni imams often participate in electoral campaigns but rarely (in 15% of mosques) endorse candidates; they instead talk about important qualities of Muslim politicians according to Islamic criteria

- Shiite imams very proactive in elections and tried to lead the campaigns within the Shiite community

Agents Playing Different Roles

- Of 13 Sunni candidates who won, only one looks secular (with no beard)

- Of 4 Shiite candidates who won, only one is religious and has ties with the Shiite clergy; the other 3 are secular and in opposition with the clergy

Simple Confidence Experiment, Herat

Suppose that the man on the picture is a MP and says:

> *"MPs like me try hard to represent the people who have voted for them."*

Do you have confidence in him? [yes,no,dk]

Figure : Example Photos: Herat, Afghanistan

Results for Confidence in Herat, Afghanistan

	Religious vs. Secular	Western vs. Secular
	Sunni	
Estimate	19.6%	-12.4%
p-value	0.00	0.13
	Shiite	
Estimate	2.40%	-2.72%
p-value	0.81	0.76

Conclusion

- We used experiments to:
  - estimate the effect of religious cues on confidence and voting
  - test theories of when and how an ethnic identity can be cued

- Conduct experiments at different points along the causal chain
  - Outside of temples/mosques
  - Random surveys
  - get-out-the-vote mobilization experiments

Conclusion

- Theories such as Posner's (2005) work well for Hindus in India
- For Muslims, however, voters can be cued even it is not in their electoral interests
- Temples play a different role than Mosques
- Planning experiments in other Muslim majority countries: Bangladesh
- No caste interactions
- Our design can be used to study other identity groups: ethnicities, castes, gender, etc.