



# The value of randomized evaluations

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# Randomized trials are not magic

- When properly done, randomized evaluations provide reliable internal estimates of the effect of the treatment that is being studied.
- But that is far from answering every question in the world
  - Says nothing about exchange rate policy
  - How much does the success of de-worming in Kenya tell us about de-worming in India?
  - Cannot by itself give us the effect of a scholarship that enables every girl to go private school.

# On the other hand..

- When de-worming was transported to India it seemed to work more or less the same way as in Kenya
  - Still, it clearly makes sense to do multiple trials
  - Like in the case of any within country study
- How does one ever learn about the effect of allowing everyone to go private school?
  - Suppose there was some quasi-experiment that involved a large fraction of the population going to private school
  - How would we estimate the social gains, without some theory?
  - Like in the case of the experiment.
- How does one ever learn about exchange rate policy?

# Moreover

- It is not obvious it should be either/or.
- Most quasi-experiments rely on some assumption about unobservables.
- The great advantage of randomized trials is that they provide an independent test of that assumption.
- When the two types of evaluation diverge, one should be very worried, even if one thinks that the randomized trial result is not necessarily correct.

# But even more importantly..

- Randomized trials have changed the way we do economics:
  1. Innovations in measurement
  2. Innovations in program design
  3. Innovations in implementation
  4. Innovations in economic thinking

# Post-Conflict Reconciliation in Sierra Leone

- **In post-conflict Sierra Leone, a lot of money is going into helping people in local communities learn to live together.**
- **Through dialogues, joint projects, etc.**
- **Do these things work?**
- **Two lab-members are starting a randomized evaluation?**

# Post-Conflict Reconciliation in Sierra Leone

- **How do you measure reconciliation?**
- **You ask questions about attitudes but you worry that you get canned answers.**
- **Another strategy is to actually give them something useful (ostensibly independently of the reconciliation efforts) that is meant to be shared**
- **A cassava grater (no one needs one all the time)**
- **Then observe who they share with.**
- **Measurement demands creativity, but most things can be measured**

# **Reducing wait at the health centers: An implementation challenge**

# Provider absence in health centers

- Huge problem all over the world
- In Rajasthan, India, we found that health sub-centers are closed between 43-56% of the time (in Uganda absence is 50%).
- Moreover closure is unpredictable.
- Waits are long.
- People are exiting the public health system.

# Better monitoring?

- In one experiment the NGO we work with paid someone in the village to visit the health center every week and note whether it was open.
- He was then expected to report it back to the village community
- His results match that of a monitor who was sent at random times—so he did monitor
- Absolutely no effect on attendance.
- What went wrong?
- One possibility is that it was his word against the health worker's

# Better monitoring

- How do you cheaply and reliably monitor someone who works alone in a remote place?
- We realized that there was no easy answer
- The stamp-sign-stamp system
- The attendance went up by 20 percentage points
- But only when tied to a salary deduction.
- When it was just reported, nothing happened...
- Everything turns on what monitoring means:
- Experiments force you to confront the many possible implementations of the same idea: Encourages innovation
- Is there a less “obnoxious” way to monitor?

# **Innovations in Immunization**

# Everyone loves immunization

- Except the people?
- In rural Udaipur district immunization rates are around 4%.
- Two theories:
  - The government immunization system has collapsed
  - People do not want to be immunized
- In one experiment, the NGO made a commitment to deliver immunization on a fixed date every month through immunization camp.
- In the other, in addition, the NGO offered a kilo of dried beans to every mother who got her child immunized at the camp.

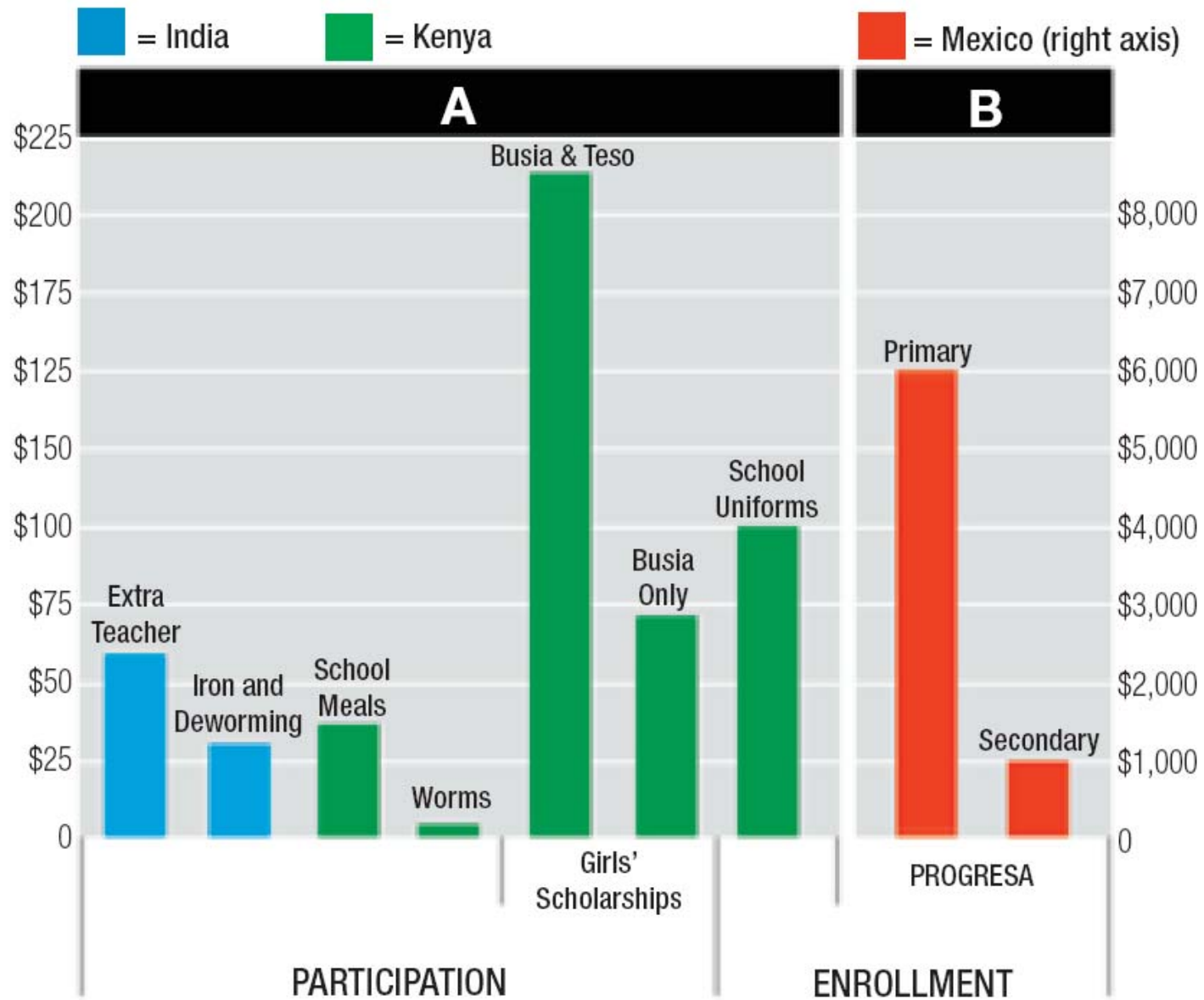
# Results

- The camps got the immunization rate from 4% to 15%
- The beans took them from 15% to 45% (or more)
- No one expected the magnitude of the response
- We would not have tried it had it not been for the fact that an experimental setting makes it easy to try additional treatments

# The challenge to theory

- Most models live in the space of high level abstractions: investment in education, decentralization, incentives...
- Theory has traditionally studied the interactions between these.
- Randomized evaluations, on the other hand, function at the level of detailed implementations
- Do details matter?

# Cost Per Extra Year of Education Induced



# Towards thinking about details

- We need more theoretical thinking that helps understand why design details matter.
- And experimental thinking to test out those theories

# Fertile thinking about Fertilizer

- Duflo, Kremer and Robinson (DKR, 2006) implement this kind of two way learning
- They start with an experiment showing that in Western Kenya fertilizers are very profitable.
- But only about a quarter of the population uses it: Ignorance?
- Knowing about these results does not help much.
- Even those who participated in the very successful demonstration experiment do not use it. Say that they do not have money: Problems with saving?
- DKR offered them a deal: if you buy fertilizer at harvest time, we will deliver it at sowing time
- Very popular. But they want delivery right away. And seem to have no trouble holding it: what is going on here?

# A wonderful learning tool