How do families decide?

14.73 lecture 13
Abhijit Banerjee and Esther Duflo
Decisions...

• We have seen in the previous lecture that families appear to be quite in control of their fertility decision.

• But when we say “families” what do we mean?
  – The dad?
  – The mom?
  – The mother in law?
The family as a decision maker

• This question is relevant for fertility, but of course for many other decisions as well:
  – How much food to buy?
  – Whether to go immunize a child?
  – How much to spend on a kid’s education?
• All these decisions are taken jointly by parents. Siblings, grand-parents, and even the concerned child, may have a role as well...
What model for the family

• In all our discussions so far we have assumed that “the family” decided like an individual: the family was treated like a black box.
• But that is surely not correct...
• When can we ignore the family dynamics?
What model for the family

• In all our discussions so far we have assumed that “the family” decided like an individual: the family was treated like a black box.

• But that is surely not correct...

• When can we ignore the family dynamics?
  – When one person decides for everyone
  – When everybody has exactly the same preferences
Neither of this seems very likely

• Women and men have different preferences:
  – For example, women and men have often very different views about how many children they want to have.
  – That is not very surprising since women bear the physical risks and cost of having children.

• Within a given family, people are different (e.g. one could be more or less patient, more or less interested in education, etc.).

• While the family is patriarchal in many developing countries, women still make a number of decisions or participate in them.
How can we test the model?

• In the “unitary” model of the family, the only things that should matter for decision should be
  – Family overall income
  – Prices of things (including opportunity costs etc.)
  – Information available to anyone in the family

• However, if the family is not unitary, and instead the members bargain between themselves for a bigger share of the pie, we should see other things appear:
  – Private Information (if people hide some things from each other)
  – Factors that affect the bargaining power of individual family members.
Does private information matter?

• The case of fertility: Lusaka, Zambia (Ashraf, Field, Voenna)
• Many women report hiding contraceptive from their husbands
• Would an intervention that involves men and women together have a larger or smaller effect than an intervention that involves just women? Or would they be the same
• Important policy question: should men be involved or left out?
Experimental design

• Randomly assigned a voucher for a quick appointment with family planning nurse either
  – To wife alone
  – To wife and husband together.
• Are women more likely to take up the voucher when they are spoken to alone? Or when they are spoken to with husband?
• What could we expect?
Voucher take up

Figure 2
Voucher Redemption and Use

Notes:
[1] The denominator for the Individual category is the total number of women in the individuals treatment arm. Likewise, the denominator for the Couple category is the total number of women in the couple treatment arm. There were 409 couples treated and 427 individuals treated.
[2] A concealable method is comprised of the following contraceptives: IUD, implant and injectable.

Courtesy of Nava Ashraf, Erica Field, and Jean N. Lee. Used with permission.
**Unwanted pregnancies**

9 to 14 month after treatment, individual

Treatment women were 57% less likely to report an unwanted pregnancy

The result disappear after the effect of 3 Months depo-provera disappear (further contraception was not available any more)

Courtesy of Nava Ashraf, Erica Field, and Jean N. Lee. Used with permission.
Does bargaining power matter?

• Even when the information set is the same for both partners, they may bargain over family decisions: who works how hard, how much to feed the children, etc.

• What is likely to affect women’s bargaining power?
Does bargaining power matter?

• Even when the information set is the same for both partners, they may bargain over family decisions: who works how hard, how much to feed the children, etc.

• What is likely to affect women’s bargaining power?
  – Property rights
  – Marriage markets
  – Ability to earn an independent income
  – Own resources
  – Education
  – Etc.
Does relative income matter?

• One of these factors is how much money women and men bring to the table.

• Many policies are predicated on the idea that who brings an income into the family matters.
  – Cash transfer programs usually given to women
  – Microcredit clients are almost all women

• Does it really matter?
The purse or the wallet: Pensions in South Africa

• At the end of the Apartheid, the government extended to Black a small pension programs that had been reserved to white South Africans before

• It was not small for the Blacks!

• It turned out to be twice the median income per capita in rural area

• Every man above 65, woman above 60, was eligible, subject to a means tests.
Pension and child health

• Many children live with a grand-parent.
• Does the pension lead to better nutrition for the children when they start getting it?
• Does the pension have different effects depending on who gets it (grand-pa or grand-ma)?
Weight for Height: a short run measure of nutrition

-0.2  -0.1  0  0.1  0.2  0.3  0.4  0.5  0.6  0.7  0.8  0.9

Boys  Girls

No eligible grand parents  Eligible grand mothers  Eligible grand father
Height for age: A longer term measure

<table>
<thead>
<tr>
<th></th>
<th>Woman receives pension</th>
<th>Man receives pension</th>
<th>No pension</th>
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<tbody>
<tr>
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<td>(1)</td>
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<td><strong>Panel A: Boys</strong></td>
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<tr>
<td>Born 01/92 or later</td>
<td>-1.40</td>
<td>-1.61</td>
<td>-1.19</td>
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<td>(0.20)</td>
<td>(0.36)</td>
<td>(0.11)</td>
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<tr>
<td>Born before 01/92</td>
<td>-1.64</td>
<td>-1.60</td>
<td>-1.33</td>
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<tr>
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<td>(0.12)</td>
<td>(0.19)</td>
<td>(0.055)</td>
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<tr>
<td><strong>Panel B: Girls</strong></td>
<td></td>
<td></td>
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<tr>
<td>Born 01/92 or later</td>
<td>-0.57</td>
<td>-1.11</td>
<td>-0.93</td>
</tr>
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<td></td>
<td>(0.24)</td>
<td>(0.36)</td>
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<tr>
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<td>-1.47</td>
<td>-1.37</td>
<td>-1.24</td>
</tr>
<tr>
<td></td>
<td>(0.12)</td>
<td>(0.22)</td>
<td>(0.06)</td>
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TOO OLD, would NOT see an effect of Pension on height. Girls are doing better in families without...
Height for age: A longer term measure

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**Panel A: Boys**
- Born 01/92 or later: -1.40 (0.20), -1.61 (0.36), -1.19 (0.11)
- Born before 01/92: -1.64 (0.12), -1.60 (0.19), -1.33 (0.055)

**Panel B: Girls**
- Born 01/92 or later: -0.57 (0.24), -1.11 (0.36), -0.93 (0.11)
- Born before 01/92: -1.47 (0.12), -1.37 (0.22), -1.24 (0.06)

In young girls, we now see that why they are smaller in pension receiving household, girls are doing better than in families without pension.
Is the family efficient?

• These results show clearly that the family is not a unitary happy-family that makes all decision together.

• They bargain, and whoever has more power pulls the decision in their direction (and grandmother like to feed girls!)

• But do they bargain pareto-efficiently?
Is the family efficient

- If the family is efficient, it will maximize the size of the pie, before thinking how to spread it.
- In Burkina Faso, women and men each own their own fields:
  - They should try to produce as much as possible on every field
  - That is, it should not be possible to re-arrange resources across fields in a way that would increase overall production
Inefficient families in Sierra Leone

- Chris Udry tested this prediction in Burkina Faso
- Specifically, he tested whether the inputs used on plots owned by men and by women, and the overall productivity of the plots, was different
- He found that, if we restrict our attention to plots where the same crop is farmed, in the same year, and in the same family, women’s plots:
  - Receive less fertilizer, less male labor, less child labor
  - Are less productive (yield per hectare)
- Households could be 6% richer just by re-allocating resources: they live money on the table
What role does the family play?

- Why is the family inefficient?
- What implications does it have for policy?
14.73 The Challenge of World Poverty
Spring 2011

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