

Gender II: Household Bargaining and Gender Discrimination

14.740x: Foundations of Development Policy

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Households models

Until now, we have always assumed that the household was maximizing utility like an individual. This is called the *unitary* model of the household.

But the household is not one individual, it is a collection of individuals living together. Why would the decisions of these groups be made exactly like those of an individual?

Two cases

Case 1: “Dictatorial” household: Decisions are made by one member who maximizes according to his own utility function.
Ex: Child labor model: one child, one adult, who decides? NB:
Does the parent ignore the consumption and the leisure of the child in the child labor model?
The preferences of the dictator can be *altruistic*.
Definition of altruistic:

Case 2: Household with “unanimity” in preferences. All the household members have exactly the same preferences, so they maximize the same function.

In reality, both assumptions are likely to be violated. Why?

We are left with two questions to answer:

- ① Is the unitary model of the household right? How can we reject it or accept it in the data?
- ② Is there a better model to describe the household? Can we accept or reject this model?

Today we will try to answer both questions.

Testing the unitary model

- Imagine a household of two persons: Ahmad and Bijou. Each household member eats a consumption bundle with several goods [this is a vector (bread, butter, liquor, women's clothing, etc.)]. Denote: q^A the vector of consumption of Ahmad, q^B the consumption of Bijou.
- The preferences of Ahmad can be represented by a utility function $u^A(q^A, q^B)$. Why might q^B enter into Ahmad's utility function?
- The preferences of Bijou can be represented by a utility function $u^B(q^A, q^B)$.
- Ahmad gets income y_A and Bijou gets income y_B .
- Ahmad and Bijou must make decisions about what goods to buy for the household (and who will get to eat what). We are trying to understand how they will arrive at this decision.

Imagine the household is unitary. Without loss of generality, the household is then maximizing Bijou's preferences, under the aggregate resource constraint:

$$\begin{aligned} & \text{Max } u^B(q^A, q^B) \\ & \text{such that } p(q^A + q^B) = y^A + y^B \equiv y, \end{aligned}$$

What do demand functions (q^A, q^B) depend on?

What do they *not* depend on?

Now imagine that the household is *not* unitary, but they are maximizing joint utility

$$\begin{aligned} \text{Max} \quad & \mu^A u^A(q^A, q^B) + \mu^B u^B(q^A, q^B) \\ \text{such that} \quad & p(q^A + q^B) = y^A + y^B \equiv y, \end{aligned} \tag{1}$$

What do demand functions (q^A, q^B) depend on now?

We don't observe the weight μ^A directly, but what are possible determinants of it, and what are good proxies we could observe?

Tests of model of the households

- ① In a unitary households, demand will only depend on prices, and overall income
- ② In a non unitary household it may also depend on
 - Who brings in the income
 - Outside options: labor market, Marriage markets, asset they can take back with them
- ③ To test for efficiency, some ideas:
 - The production decisions should be efficient
 - Temporary variations in share of the income should not matter for decisions.

A test of the unitary model: Pensions in South Africa

Pensions were introduced for Black South Africans in 1993, and represent a substantial transfer of income for men older than 65 and women older than 60. Many children live with their grandparents (a grandmother, a grandfather, or both).

Weight for height is a fast-reacting measure of health: we can compare children living in households where a member has just become eligible to those where there is an old member, but he/she is not yet eligible (there should not be much difference between a household with a member just below and just above the threshold, except that one is eligible and one is not)

- In a unitary household, what would we expect?
- Results: weight-for-height. What do we find?

Effect of pension eligibility on Weight for height

Panel B: Girls

Eligible household	0.14 (0.12)	0.35* (0.17)	0.34* (0.17)				
Woman eligible (in col. 7: woman receives pension)				0.24* (0.12)	0.61* (0.19)	0.61* (0.19)	1.19* (0.41)
Man eligible (in col. 7: man receives pension)				-0.011 (0.22)	0.11 (0.28)	0.056 (0.19)	-0.097 (0.74)
Woman above 50		0.17 (0.17)	0.067 (0.24)		0.16 (0.17)	0.024 (0.24)	-0.066 (0.24)
Man above 50		0.28 (0.18)	0.34 (0.35)		0.28 (0.18)	0.29 (0.25)	0.30 (0.25)
Woman above 56		-0.35 (0.20)	-0.36 (0.21)		-0.55 (0.21)	-0.56 (0.22)	-0.71 (0.26)
Man above 56		-0.40 (0.24)	-0.32 (0.25)		-0.36 (0.24)	-0.27 (0.25)	-0.28 (0.26)
Man above 61		-0.0098 (0.22)	0.048 (0.23)		-0.0054 (0.26)	0.086 (0.26)	0.14 (0.34)

Effect of pension eligibility on Weight for height

Table 5: Effect of eligibility by gender of the intermediate generation.
OLS regressions

	Weight for height BOYS (1)	Weight for height GIRLS (1)
Mother's mother eligible	0.099 (0.27)	0.48* (0.21)
Father's mother eligible	0.29 (0.30)	0.15 (0.25)
Mother's father eligible	0.00052 (0.43)	0.097 (0.34)
Father's father eligible	0.25 (0.44)	0.22 (0.48)
Control variables:		
Presence of older members	Yes	Yes
Family background variables	Yes	Yes
Age dummies	Yes	Yes
N. Obs.	1552	1457

- In a unitary household, what would we expect?
- Results: weight-for-height. What do we find?
 - Girls are heavier when they are in a household with a female pensioner
 - But this is not true for boys
 - Moreover, it is the daughter of the pensioners *daughters* who are heavier.

But what about the GiveDirectly results?

- Remember GiveDirectly experiment
- We don't find a difference between female and male income
- How do we square these results?

Gender Discrimination

- Girls have worst outcomes than boys in many dimensions
- The most prominent of which is “missing women” (Amartya Sen). Gender ratios are not even: there are many more men than women! In a classic article, he calculated the number of missing women in the world by calculating how many more women should be alive if the ratio was everywhere what it is in Africa: at the time he found 100 million
- Since then a new phenomenon is sex-selective abortion, made possible by ultra sound technology: rapid worsening of the sex ratio in china, India, Pakistan, Bangladesh, etc.
- There are many dimensions to gender discriminations, but throughout the class so far we have seen a number of factors that would influence how you treat boys versus girls:
 - Actual and perceived returns
 - Actual and perceived *share* of the returns for parents
 - Budget constraints, potentially combined with capacity curve argument: things could be worst in crisis time

Will economic development necessarily help girls?

- Why would economic development help reducing gender discrimination
- How it could hurt
 - Ultra sound
 - Desire for smaller family: suppose that a family wants at least one son. They will be more likely to use sex-selective abortion if they want a smaller family to insure that there would be at least one son
 - Test: Jaychandran (2014)
 - “Suppose your son/daughter was going to have N children, how many of them would you want to be boys and how many would you want to be girls??
 - N is randomized between 1 and 5 depending on the person.

Table 2: Desired number of sons by randomly-specified family size: Sample means

	Randomly-specified family size				
	1	2	3	4	5
Desired # of sons at randomly-specified family size					
0	0.151	0.031	0.020	0.014	0.028
1	0.849	0.846	0.405	0.176	0.153
2		0.124	0.546	0.726	0.350
3			0.029	0.063	0.436
4				0.021	0.018
5					0.015
Average % sons de- sired	0.849	0.546	0.528	0.475	0.462
Sex ratio desired	5.639	1.204	1.117	0.905	0.858
Observations	1102	1101	1182	1178	1112

References

- Duflo, E. (2003). Grandmothers and Granddaughters Old Age Pensions and Intrahousehold Allocation in South Africa. *The World Bank Economic Review*, 17(1), 1-25.
- Jayachandran, S. (2014). Fertility Decline and Missing Women (No. w20272). National Bureau of Economic Research.