



Gender and Agency within Households: Experimental Evidence from Pakistan

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Parable

- 4 year old child
- ice-cream truck
 - fact: child has demanded a chocolate ice-cream every time over last 4 weeks
- parent orders a chocolate ice-cream for his son
- the child complains that he wants to choose by himself
- the parent decides to allow this
- the child chooses a chocolate ice-cream

Hypotheses

- 1 We call the first lesson the agency value hypothesis or AVH: people have demand for pure agency, irrespective of the outcome;
 - Implication: even a subordinate dependent can have a demand for agency for small enough consumption goods
- 2 We call the second lesson the subordinate dependent hypothesis or SDH: even the most subordinate member of a household has agency over certain consumption choices, but much less (if any) agency over more important choices
 - Note: motivation for this can be paternalistic: (1) to grant domain of free will; (2) to teach dependent how to make responsible choices

What we test

To test '**subordinate dependent hypothesis**' (SDH)

- we use a combination of survey questions about decision autonomy and incentivised measures of social norms concerning female agency

People may have demand for agency independently of material consumption, as a form of preference over process. To test the '**agency value hypothesis**' (AVH)

- we design an original game that varies instrumental value of agency

What we find

We test both hypotheses on a sample of lower income, adult women in peri-urban areas of Punjab, Pakistan. We find that:

- Women have less influence on big household decisions than on small consumption choices

We find no evidence that women have a pent up demand for agency:

- Fewer women, than men, are willing to forgo material payoff in order to guarantee their own choice
- Women are less likely to pay for agency when facing a male stranger than a household member

Link to experimental literature

- Willingness to pay for agency between spouses e.g., Iversen et al. 2011; Mani, 2011; Jakiela and Ozier 2015).
- Preferences for decision-making power and fair processes e.g., Fehr et al., 2013; Bartling et al., 2014; Bolton et al., 2005
- Household decision making is inefficient e.g., Duflo and Udry, 2004; Kebede et al., 2014; Castilla, 2015).
 - Varying the amount of information available to household members provides evidence of opportunism Castilla and Walker, 2012; de Laat, 2014; Ambler, 2015; Hoel, 2015).
 - Mismatched preferences reduce household efficiency e.g. Ashraf et. al., 2014; Schaener, 2015).

Conceptual framework: The sharing rule

- (Chiappori 1997) Pareto efficient outcomes can be represented as the solution to a social welfare problem:

$$\max_x \theta U_m(x_m) + (1 - \theta) U_f(x_f) \text{ s.t. } p(x_m + x_f) = E \equiv I_m + I_f \quad (1)$$

- θ presents welfare weights or gender equality in bargaining
- By second welfare theorem, above maps into:

$$\max_{x_m} U_m(x_m) \text{ subject to } px_m = \mu E \quad (2)$$

$$\text{leads to } x_m = x_m(p, \mu E) \quad (3)$$

$$\max_{x_f} U_f(x_f) \text{ subject to } px_f = (1 - \mu)E \quad (4)$$

$$\text{leads to } x_f = x_f(p, (1 - \mu)E) \quad (5)$$

- μ = share of total expenditures allocated to male consumption
- Any variation in bargaining power that affects θ (welfare weight) is reflected in μ (budget share)
- SDH - preferences of the SD matter more for less important decisions.

Experimental design and agency in consumption choices

- Subordinate status of women
 - => pent-up demand for agency
 - => willingness to pay for agency if offered opportunity
- But could fear retaliation if express agency
 - => offer credible deniability: good consumed on spot, not observable by other sex
- For certain subjects: matched not with husband but with unspecified person of opposite sex
 - => more acceptable for woman to exert agency

The study population

- Study population: lower middle income couples in urban and peri-urban of Pakistan Punjab
- Most subjects are middle aged and are either self-employed in a small business or work as casual workers; about a third of households have a member in permanent wage employment
- Quite representative of South Asia population (or other less developed country)
- Survey data:
 - RCT sample: clients of a micro-finance institution
 - Lab sample: similar population nearby, less likely to be MFI client
- Experimental data:
 - participating couples selected from RCT sample and from similar population nearby

Table 1. Descriptive statistics on the RCT and LAB samples

Variable	RCT Sample				LAB Sample		p-value
	n	mean	n	mean	n	mean	
Age	790	37.97	196	38.75	140	37.62	0.41
Can read and write	790	0.55	184	0.65	140	0.61	0.41
Average monthly hh expenses (Rs)	763	18863.1	196	14491.57	140	14285.71	0.75
Self employed (females)	789	0.49	86	0.37	70	0.13	0
Housewives (females)	789	-	86	0.24	70	0.52	0
Self employed (males)	789	-	86	0.15	70	0.17	0.73
Private employees (males)	789	-	86	0.21	70	0.19	0.72
Day labourers (males)	789	-	86	0.33	70	0.43	0.19

Experimental protocol

- Upon arrival, subject pairs are assigned to their respective gender-specific room. 74.4% of the participants came with their spouse; 14.88% with their son and 10.72% with male household members (for instance, brother, brother-in-law).
- Each subject pair is randomly assigned to a matching treatment: either with spouse/household member they came with; or with stranger of opposite gender. 50.6% of the participants were paired with family member and 49.4% are paired with a stranger.
- Partners are not changed, and participants play each game with the same partner throughout the session.

- Half of the subjects are randomly assigned to the information treatment. The randomization is done by pair ID codes assigned at the start of the treatment.

		Information treatment	
		Uninformed	Informed
Matching treatment	Relative	Uninformed relative	Informed relative
	Stranger	Uninformed stranger	Informed stranger

Table. Information and pairing treatments

- No contact is allowed between subjects of opposite genders during the entire experiment. Men and women are seated in separate rooms
- Subjects of the same gender are seated in compartments separated by cardboard sheets. Contact between subjects in the same room is strongly discouraged but not impossible.

Measures for AVH

- 1 Subjects play the Dictator, Taking and Ultimatum activities. The order of play is randomized across sessions
- 2 Preference game:
 - Subjects taste small samples of three juice flavours.
 - Subjects rank the three flavours by order of preference.
 - Subjects pick the flavour they want to receive a full glass of.
 - Subjects guess the preference ordering of their partner.
 - Subjects in the information treatment are informed of the preference order of their partner.
 - Subjects pick the flavour they want their partner to receive a full glass of.
 - Subjects choose whether to take half-a-glass of their selected flavour, or 50% chance of a full glass of their selected flavour and 50% chance of a full glass of the flavour selected for them by their partner.
 - A coin toss determines which flavour the subject receives.

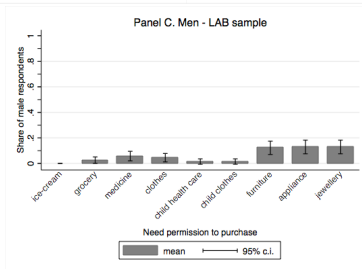
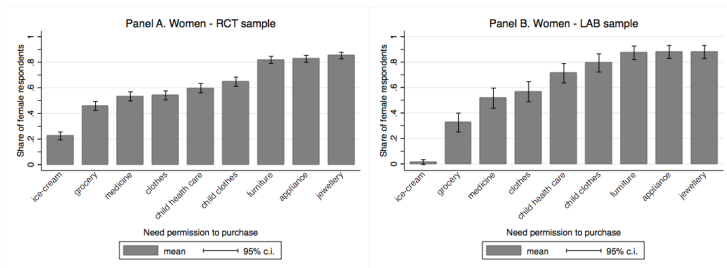
1 Norm elicitation:

- Subjects answer two incentivised questions about financial autonomy of women. The two questions are answered twice; once the answers are matched to the spouse and once the answers are matched to a random stranger sitting in the next room. Subjects receive a fixed payoff of Rs. 250 for every question matched to a person sitting in the next room. Question about an ordinary purchase (scarf) is always asked before the question on investment decision. The order in the which answer is matched to either the household member or stranger is randomised.

Participants Renumeration

- Show-up fee + pay off from randomly selected activity (DG/TG/UG/norms) is paid to each participant in cash. The participants are provided this cash in a white envelope and in privacy.

Share of respondents who need permission, by decision importance



Results on SDH: high value=less executive agency

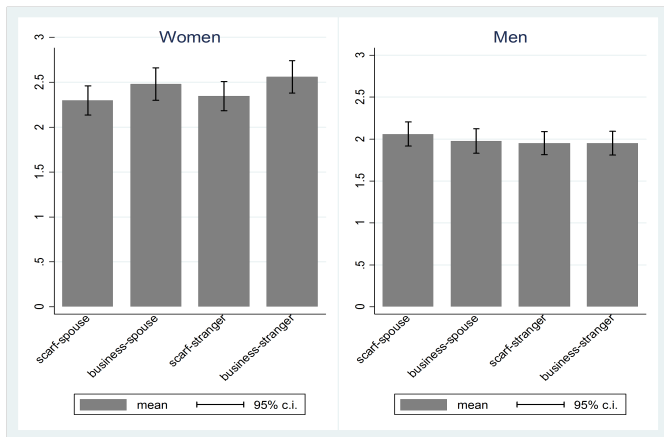
Table: Regression of need permission variable on the importance of decision

	Needs permission to take decision					
	Women RCT sample		Women LAB sample		Men LAB sample	
	(1)	(2)	(3)	(4)	(5)	(6)
Decision importance	0.071*** (0.002)	0.071*** (0.002)	0.100*** (0.004)	0.100*** (0.004)	0.014*** (0.003)	0.014*** (0.003)
HH head		-0.435*** (0.032)		-0.509*** (0.047)		-0.234*** (0.059)
Age		-0.006*** (0.001)		-0.006*** (0.002)		-0.002* (0.001)
Literate		0.007 (0.023)		-0.001 (0.041)		-0.067*** (0.021)
Individual f.e.	Yes	No	Yes	No	Yes	No
Constant	0.258*** (0.012)	0.553*** (0.048)	0.117*** (0.022)	0.374*** (0.087)	-0.006 (0.017)	0.355*** (0.065)
Number of Obs.	6651	6651	1349	1349	1330	1330
R-Squared	0.143	0.277	0.285	0.427	0.028	0.237

'Decision importance' is a categorical variable increasing in the importance of the decision. *** p<0.01, ** p<0.05, * p<0.1

Norm elicitation: high value=more power

Figure: Incentivised norms ratings (LAB sample only)



Note: Answers are coded as 1-'very inappropriate'; 2-'inappropriate'; 3-'appropriate'; and 4-'very appropriate'.

Results on AVH: who picks half-glass of own juice

	Matched w/ stranger	N	Matched w/ spouse	N	t-test (p-val.)
Male	25.3%	83	29.4%	85	0.59 (0.55)
Female	13.3%	83	22.4%	85	1.54 (0.12)
t-test	1.98** (0.049)	166	1.05 (0.296)	170	

Table 6. Percentage of subjects paying for agency, by gender and match type

- Women exert less agency than men, especially when matched to strangers.
- Within family matching, women challenge the choice made by son with same frequency as with husband.
- Sons never challenge the choice made for them by their mother -but we are careful not to over-interpret the results.

Determinants of preference for agency

	Choice of half-glass to make sure of getting one's own pick							
	Matched with Stranger				Matched with household member			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Participant is female	-0.12*	-0.12**	-0.12*	-0.14**	-0.07	-0.07	-0.07	-0.07
	(0.061)	(0.060)	(0.060)	(0.059)	(0.069)	(0.071)	(0.072)	(0.072)
Informed treatment dummy	0.07	0.13	0.14	0.21	0.02	0.08	0.10	0.06
	(0.061)	(0.209)	(0.209)	(0.221)	(0.067)	(0.231)	(0.238)	(0.242)
Altruism of my partner towards me (*)		-0.10	-0.10	-0.08		0.04	0.04	0.04
		(0.068)	(0.068)	(0.073)		(0.074)	(0.074)	(0.078)
Altruism of my partner towards me x informed dummy		-0.04	-0.03	-0.05		-0.03	-0.04	-0.03
		(0.112)	(0.112)	(0.116)		(0.137)	(0.138)	(0.141)
Dummy=1 if partner selects my top rank if informed			-0.04				-0.04	
			(0.100)				(0.089)	
My top choice does not match my top-ranked flavor				0.14				-0.05
				(0.085)				(0.074)
My top choice not my top-rank x informed dummy				-0.17				0.05
				(0.106)				(0.097)
Constant	0.22***	0.37***	0.37***	0.31**	0.29***	0.22*	0.22*	0.24
	(0.056)	(0.137)	(0.137)	(0.150)	(0.055)	(0.126)	(0.127)	(0.145)
No. of Obs.	166	166	166	166	170	170	170	170
R-squared	0.031	0.047	0.049	0.072	0.007	0.008	0.009	0.011
Adjusted R-squared	0.0188	0.0236	0.0189	0.0370	-0.00496	-0.0159	-0.0209	-0.0257

(*) The dependent variable is 1 when the participant opts for half a glass in order to get his/her own pick for sure.

(*) Measured by sum of amount given in dictator, taking and ultimatum game, in PKR/1000. Robust standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

New Experiment: differences

- Food and drink; goods are more contrasted
- Matched with stranger of same or opposite gender —or with computer/random selection
- Willingness to pay part of show-up fee
- Subjects are asked willingness to pay for agency twice
 - before knowing what partner has selected for them
 - after knowing what partner has selected for them

Conclusions

- women's involvement in decision making is decreasing in the importance of the decision
 - => consistent with subordinate dependent hypothesis: women treated like teenagers
- women are less willing than men to pay to have their preferred option implemented in the lab
 - => suggests that they have internalized their lower agency in the household
- this difference is strongest with non-household members
 - => suggests that norms of limited autonomy for women stronger outside the family sphere – i.e., it is not just a matter of domineering husbands

Why are Pakistani women not behaving like a 4 year old?

- Expressing demand for agency may be suppressed because:
 - ① people are afraid of retaliation if they express agency
 - We cannot rule it out, but we minimize this in the experiment
 - However we cannot exclude women adopt heuristics that minimize risk of confrontation, 'just in case'
 - ② people would like to express agency but voluntarily choose to respect their own social norms to the contrary
 - Not fully convincing: we saw that women have more permissive social norms than men
 - ③ people have no demand for agency because they are 'alienated'
 - We cannot rule this out, but wouldn't it imply same low demand for agency towards husband or stranger? Or even lower demand toward husband?
- Policy implication: make a space for women to express themselves in the public sphere, e.g., by confronting men who confront women in public.

Thank you!