Whose Preference? Gender Relations, Power, and Husband-Wife Differences in Son Preference in India, Armenia, and Azerbaijan

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## **Background**

Since 1990, when Amartya Sen first called attention to the "missing women" of Asia, demographers have sought to understand the determinants and consequences of a preference for sons over daughters. It is now well established that son preference arises in patriarchal societies where sons are seen as culturally and economically more valuable than daughters (Dyson and Moore 1983; Das Gupta et al. 2003). It is also well known that son preference is associated with higher mortality rates for young girls (Sen 1990; Arnold et al. 1998) and sex ratios at birth that favor boys (Guilmoto 2009). While evidence of pre- and post-natal discrimination against girls has long existed for India and China, more recent studies have revealed a steady rise in skewed sex ratios at birth in the South Caucasus (Duthe et al. 2012).

The literature on son preference has made great strides in elucidating how patriarchal structures and norms motivate son preference. A major gap in the literature, however, is that it focuses exclusively on women's preferences. This limits greatly our understanding of the mechanisms linking gender inequality, son preference, and discriminatory fertility behavior. Previous demographic research on couples has shown that fertility behavior is the outcome of a decision-making process between wives and husbands, who often have conflicting desires (Mason and Taj 1987; Bankole and Singh 1998) and unequal influence over household decisions (Bankole 1995; Becker 1996; Mason and Smith 2000). Furthermore, we know that gender stratification can influence fertility behavior through two mechanisms: 1) by shaping wives' and husbands' desires and 2) by bestowing husbands with greater power to implement their desires (Mason and Smith 2000). A rich body of demographic literature explores how gender stratification influences husband-wife differences in the desired number of children as well as the relative influence of husbands versus wives on the decision to use contraception (Bankole 1995; Bankole & Singh 1998; Mason and Smith 2000). To date, however, no such study exists for husband-wife differences in son preference and discriminatory fertility behavior.

Our study fills this gap in the literature by examining husband-wife differences in son preference in three countries with skewed sex ratios at birth - India, Armenia, and Azerbaijan. Recent findings laid out by Bongaarts (2013) demonstrate why it is necessary to examine the mechanisms that link gender stratification with skewed sex ratios at birth. Bongaarts finds that while husband-wife differences in desired sex ratios at birth near zero in India, they exceed 30 in Armenia and Azerbaijan. Though researchers concur that skewed sex ratios at birth in all three countries are associated with patriarchal structures and norms, these findings suggest that gender inequality operates through different mechanisms. In India, husbands and wives share son

preference, while in the South Caucasus, husbands want significantly more sons than their wives. We refer to these configurations as "buying into" son preference, in the case of India, versus "bowing out" of son preference, in the case of the South Caucasus.

We aim not only to examine husband-wife differences in son preference in these three countries, but also to study how different dimensions of gender relations, such as attitudes toward intimate partner violence, relative power in household decision-making, and differences in spouses' education, are associated with whether women "buy into" son preference or "bow out" of it. Finally, we seek to shed light on how couples resolve these differences by looking at how these dimensions of gender relations are associated with spouses' relative decision-making power regarding the implementation of son preference. Our work will extend the literature in gender and development studies that calls on scholars to pay greater attention to the heterogeneity of patriarchal gender systems across countries (Mason 1986; Kandiyoti 1988; Mason 2001). Our findings will also contribute to ongoing efforts among demographers and policymakers to identify the mechanisms that link gender inequality with pre- and post-natal discrimination against girl children.

### Data

Data for this study come from the Demographic and Health Survey (DHS) couples datasets for Armenia (2005), Azerbaijan (2006), and India (2005-2006). DHS surveys are cross-sectional, nationally representative, and contain rich demographic data for samples of women ages 15-49. A subset of DHS surveys also contain data for samples of men ages 15-49 (15-54 in India). The couples datasets used for this study contain data for women and men who completed individual interviews and reported that they were married or currently living together. Since it is established in the literature that sex preferences for children vary significantly within India (Dyson and Moore 1983), and because India's large sample size permits it, we conduct analyses for India at the state level.

### **Analytic Plan**

How different are wives' and husbands' preferences for sons?

We compare differences in wives versus husbands' son preference and use *t*-tests to determine whether these differences are statistically significant. Following Bongaarts (2013), we use desired sex ratios at birth to measure son preference. The DHS surveys ask respondents how many sons and how many daughters they would like to have. Respondents with completed fertility are asked to respond as if they do not yet have children. From these responses, we construct a continuous measure of desired sex ratio at birth by calculating the ratio of desired sons to desired daughters (see Retherford & Roy 2003; Bongaarts 2013). A value of 1.00 denotes a preference for equal numbers of sons and daughters.

How do different dimensions of gender relations influence whether wives "buy into" or "bow out" of son preference?

Using logistic regression models with appropriate sample weights, we predict the probability that women desire more sons than their husbands (i.e., "buy into" son preference), controlling for different dimensions of gender relations. These include: wives' and husbands' attitudes toward intimate partner violence, spouses' relative decision-making power regarding a number of household matters, and relative education of husbands and wives. The DHS surveys ask women and men who has the final say (husband alone/wife alone/husband and wife together/other relative) on the following key issues: 1) own health care; 2) making large household purchases; 3) making household purchases for daily needs; 4) visits to family or relatives; 5) food to be cooked each day; 6) deciding what to do with money earned by the wife; 7) deciding how many children to have. We estimate these models both unconditionally and controlling for relevant characteristics of spouses and households, such as age, occupational status, household wealth, and type of residence (urban/rural). We estimate all analyses separately for each country and state.

When husbands and wives differ in how much they prefer having sons over daughters, who has greater influence over fertility decisions regarding implementation of sex preference (i.e. differential stopping behavior and/or sex-selective abortion)? How are different dimensions of gender relations associated with spouses' decision-making power regarding sex-selective fertility behavior?

We use linear regression models with sample weights to test the relationship between husbands' and wives' desired son preference and their fertility behavior. Following Bongaarts (2013), we use two measures to capture sex-selective fertility behavior: observed sex ratios at birth to measure sex-selective abortion and sex ratio at last birth to measure differential contraceptive use. We then test the relationship between measures of gender relations (listed above) and spouses' decision-making power in sex-selective fertility behavior. We use the difference between wives' and husbands' desired sex ratio and the couple's sex ratio at last birth to measure each spouse's power to translate individual preference into couple behavior.

## **Preliminary Findings**

Table 1 shows differences in son preference for wives and husbands in Armenia, Azerbaijan, and India (by state). We find that in Armenia, Azerbaijan, and several states in south and east India (West Bengal, Karnataka, Andhra Pradesh, and Tamil Nadu), women's son preference is significantly lower than that of their husbands. Conversely, women in five states in north and east India (Uttar Pradesh, Rajasthan, Chhattisgarh, Assam, and Uttaranchal) desire more sons than their husbands. These differences are significant at the .01 level.

These findings are noteworthy for several reasons. First, by examining husband-wife differences in India by state, we are able to disaggregate Bongaarts' finding that there is little disagreement in son preference between husbands and wives in India. Though that is the case for most states, we find significant differences in desired sex ratios at birth for couples in nine states. Furthermore, the direction of these differences follows a well-established geographic patterning of gender systems in India. That is, in northern states, where son preference is more pronounced,

women have on average higher desired sex ratios at birth than their husbands. In southern India, by contrast, women have lower desired sex ratios at birth than their husbands.

Table 1: Wives' and Husbands' Mean Desired Sex Ratios at Birth

	Wives	Husbands	N (couples)
Armenia	1.07	1.31	780
Azerbaijan	1.11	1.35	1421
India (by state)			
Bihar	1.46	1.48	680
Madhya Pradesh	1.35	1.34	1586
Uttar Pradesh	1.37	1.34	5964
Rajasthan	1.39	1.27	869
Chhattisgarh	1.36	1.28	843
Orissa	1.25	1.20	940
Gujarat	1.18	1.21	820
Haryana	1.22	1.18	591
Jammu & Kashmir	1.22	1.24	441
Jharkand	1.27	1.28	565
Assam	1.26	1.16	714
Uttaranchal	1.21	1.13	527
Punjab	1.11	1.10	636
West Bengal	1.09	1.14	1410
Maharashtra	1.16	1.14	4176
Himachal Pradesh	1.06	1.07	559
Karnataka	1.06	1.11	2932
Delhi	1.13	1.11	616
Andhra Pradesh	1.08	1.09	3842
Kerala	1.04	1.08	611
Tamil Nadu	1.02	1.05	3148

Values in bold denote that the difference between the means for women versus men is significant at p < .01 (one-tailed *t*-tests).

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