The Roots of Gender Inequality in Developing Countries

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Keywords

gender discrimination, economic development, cultural norms,
son preference

Abstract

Is the high degree of gender inequality in developing countries—in
education, personal autonomy, and more—explained by underdevel-
opment itself? Or do the societies that are poor today hold certain
cultural views that lead to gender inequality? This article discusses
several mechanisms through which gender gaps narrow as countries
grow. I argue that although much of the GDP/gender-inequality
relationship can be explained by the process of development, society-
specific factors are also at play: Many countries that are poor today have
cultural norms that exacerbate favoritism toward males. Norms such
as patrilocality and concern for women's "purity" help explain the
male-skewed sex ratio in India and China and low female employ-
ment in India, the Middle East, and North Africa, for example. I also
discuss why the sex ratio has become more male-skewed with de-
velopment. Finally, I lay out some policy approaches to address gender
inequality.

1. INTRODUCTION

Gender gaps favoring males—in education, health, personal autonomy, and more—are systematically larger in poor countries than in rich countries. This article explores the root causes of gender inequality in poor countries. Is the higher level of gender inequality explained by underdevelopment itself? Or do the countries that are poor today have certain characteristics and cultural beliefs that lead to the larger gender gaps?

I begin by documenting some basic facts about how gender inequality correlates with the level of economic development. I then discuss several mechanisms through which the process of economic development theoretically could improve the relative outcomes of women and review recent evidence on these mechanisms.

I argue that although much of the relationship between development and gender inequality can be explained by the process of development, society-specific factors are also at play. Many countries that are poor today have cultural features that exacerbate favoritism toward males. Being poor is insufficient to explain parents' strong desire to have a son in China and India, for example.

I then discuss in greater detail the problem of the male-skewed sex ratio at birth, which differs from most other manifestations of gender bias in that it has been intensifying, not lessening, with economic development. Finally, I lay out some policy approaches to accelerate the narrowing of gender gaps.

Note that the article's focus is the causes rather than effects of gender inequality, and thus I do not review the literature on the reverse direction of causality, that is, how gender inequality hinders economic development.[1] Nonetheless, much of the discussion hints at inefficiencies that result from constricted opportunities for women and girls.

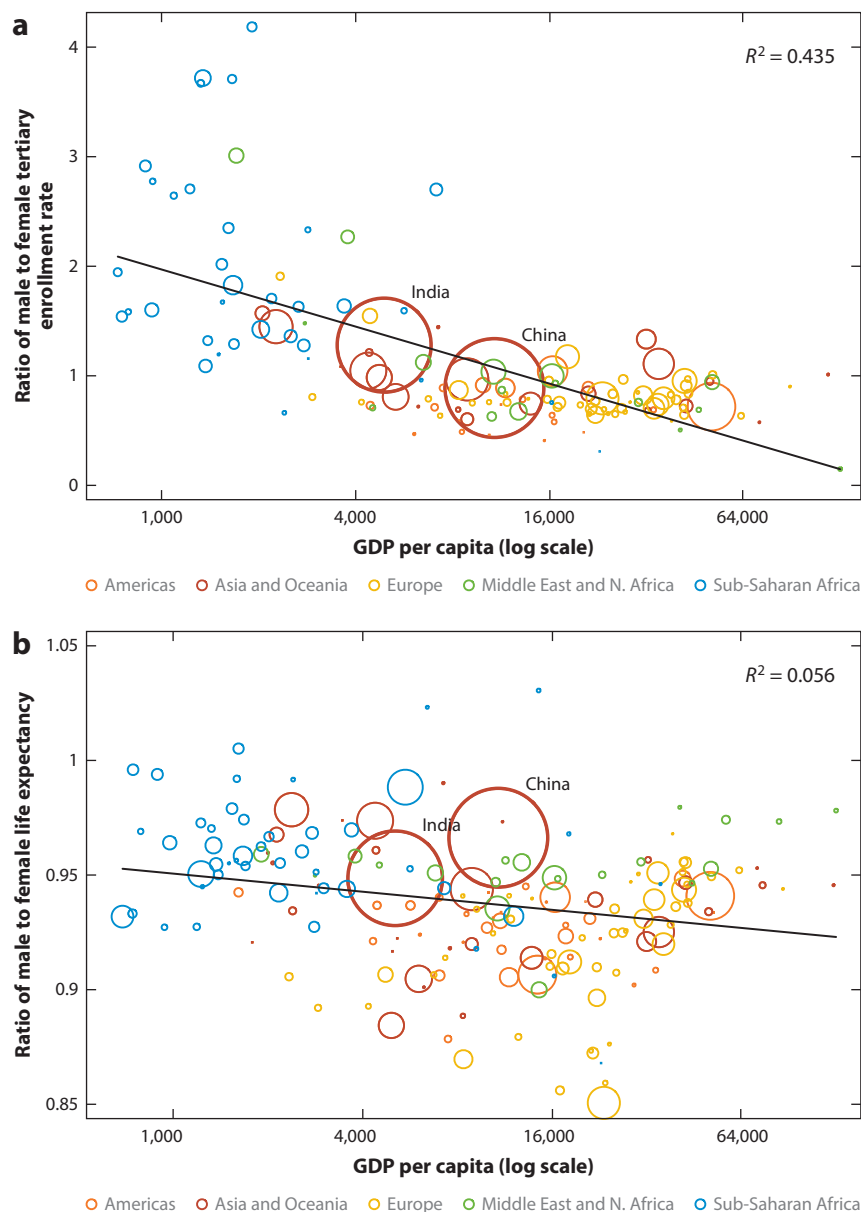## 2. MORE GENDER INEQUALITY IN POOR COUNTRIES: SOME FACTS

Poor countries by no means have a monopoly on gender inequality. Men earn more than women in essentially all societies. However, disparities in health, education, and bargaining power within marriage tend to be larger in countries with low GDP per capita.

2.1. Education and Health

Figure 1a shows the ratio of the male and female college enrollment rates plotted against GDP per capita for countries included in the World Bank's World Development Indicators (WDI) data set. The relationship is downward sloping: The male bias in college-going falls (and in fact evaporates) as GDP increases. Although the correlation cannot be interpreted as a causal relationship, it is strong: In a univariate regression of the college gender ratio on log GDP per capita, the R^2 is 0.44, equivalent to a correlation of 0.66. A negative relationship between the schooling gender gap and GDP is also seen for primary and secondary school enrollment (see **Supplemental Figure 1**; follow the Supplemental Material link from the Annual Reviews home page at **http://www.annualreviews. org**; the **Supplemental Appendix** also describes the data in more detail).

As with many of the cross-country patterns shown below, the college-GDP relationship mirrors the time-series pattern seen within many countries as their economies grow. The male to female

⏵ Supplemental Material

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[1]Readers are referred to Duflo (2012) on the bidirectional relationship between women's empowerment and development and to Doepke et al. (2012) on the link between legal rights for women and development.

a

$R^2 = 0.435$

Ratio of male to female tertiary enrollment rate (y-axis)

India

China

GDP per capita (log scale)

○ Americas ○ Asia and Oceania ○ Europe ○ Middle East and N. Africa ○ Sub-Saharan Africa

b

$R^2 = 0.056$

Ratio of male to female life expectancy (y-axis)

China

India

GDP per capita (log scale)

○ Americas ○ Asia and Oceania ○ Europe ○ Middle East and N. Africa ○ Sub-Saharan Africa

Figure 1

Gender gaps in (*a*) education and (*b*) life expectancy. GDP per capita is the purchasing power parity–adjusted value in the year the outcome (the vertical-axis variable) is measured, expressed in 2011 US dollars; data are from the World Bank's World Development Indicators (WDI). Outcome data are from WDI. In this and subsequent figures, the circle size for each country is proportional to its population (from WDI) in the year the outcome is measured, and the line shown is the best (unweighted) linear fit.

ratio of college enrollment in the United States has declined steadily since 1950, falling below parity by 1980 and continuing to decline since then (Goldin et al. 2006).[2]

In **Figure 1a**, the data points for China and India are given special attention both because they are large—together they are home to over one-third of the world's population—and because they are infamous for their strong son preference. Interestingly, in terms of school enrollment, neither China nor India is an outlier.

Turning to health, in general women have a longer life expectancy than men, but this female advantage is somewhat smaller in poor countries (**Figure 1b**). The pattern is not explained by the disease composition varying with the level of development; even for a given cause of death, women have higher age-adjusted mortality relative to men in poor countries than in rich ones (Anderson & Ray 2010). Most sub-Saharan African countries are above the best-fit line in **Figure 1b**; the HIV/AIDS epidemic has hit Africa hard and has decreased female life expectancy disproportionately.
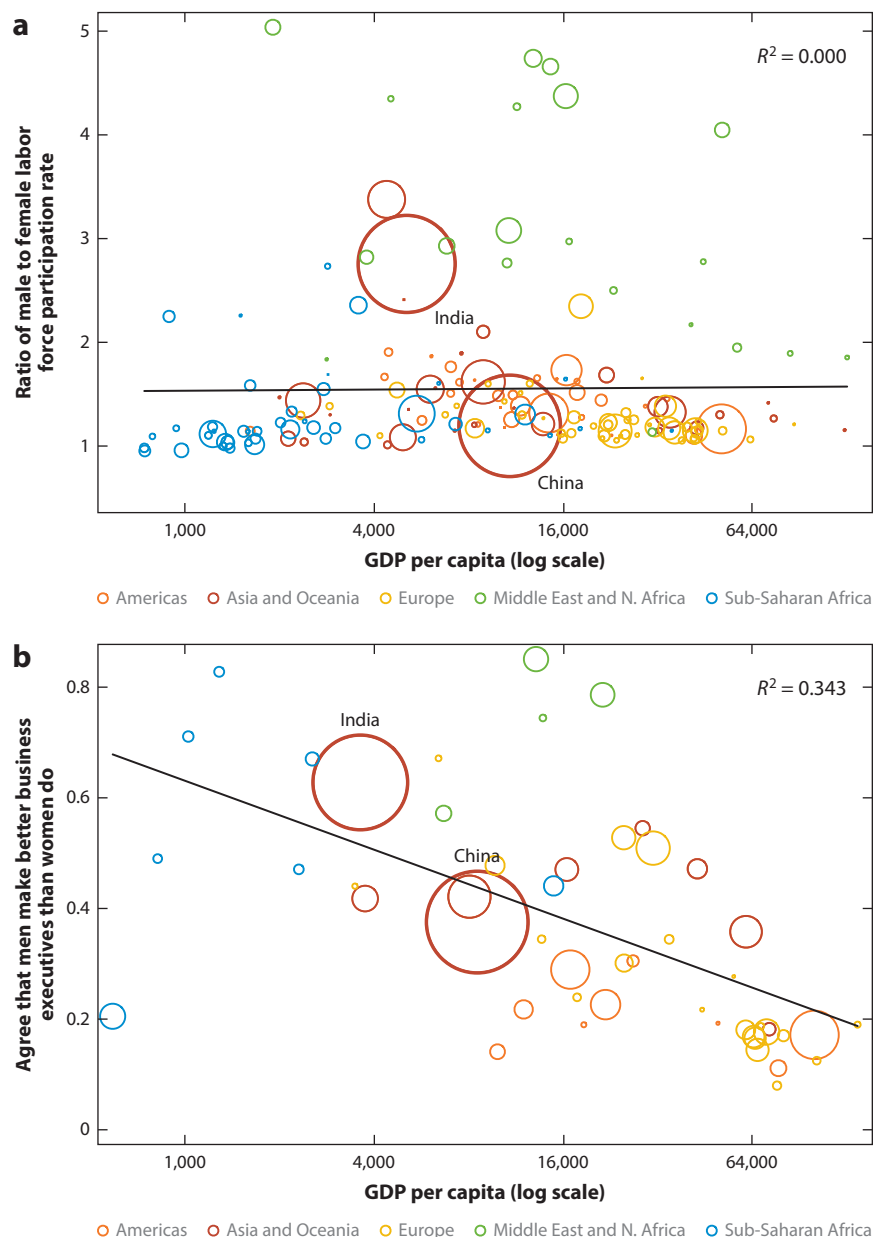
2.2. Employment

Figure 2a plots the ratio of the male and female labor force participation rates versus GDP per capita. The correlation is essentially zero. India stands out for the underrepresentation of women in the labor force; men are three times as likely as women to be working. Female labor force participation (FLFP) is also abnormally low in the Middle East and North Africa.

Even though actual FLFP is not systematically higher in rich countries, attitudes about women in the labor force are more progressive in rich countries. **Figure 2b** uses the World Values Survey (WVS), a set of nationally representative surveys fielded to both men and women; I use wave 5, conducted between 2004 and 2009, because wave 6 data for India was not yet available when this article was written. One of the survey questions asked respondents if they agreed or disagreed with the statement "on the whole, men make better business executives than women do." The poorer the country, the more frequently respondents agreed with the statement. Because these are stated attitudes, an important caveat is that the pattern could partly just reflect a greater degree of political correctness in rich countries.
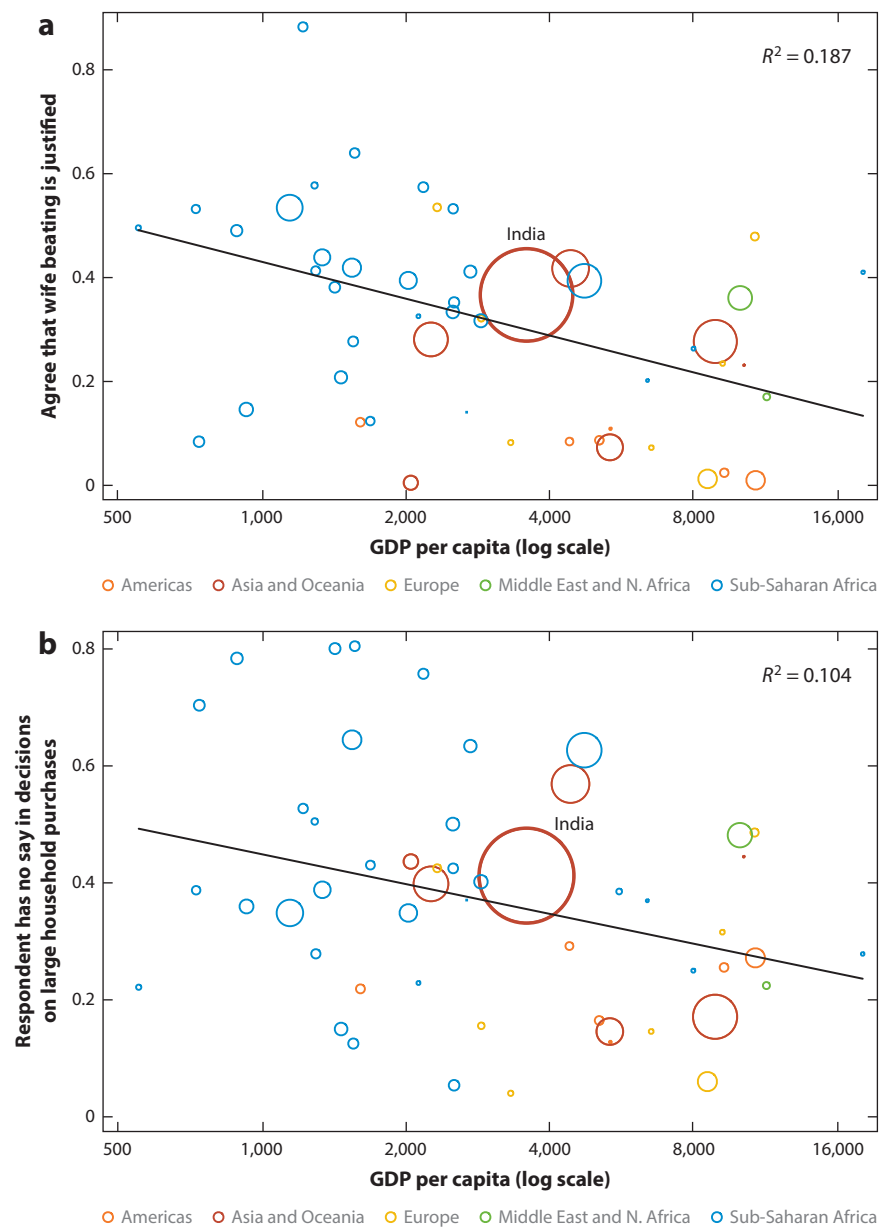
2.3. Gender-Based Violence

Although there are no reliable data on the incidence of gender-based violence to make cross-country comparisons, attitudes toward gender-based violence vary systematically with economic development. One can see this using data from the Demographic and Health Surveys (DHS). One of the DHS questions asked female respondents age 15–49 whether and when a husband is justified in beating his wife. The variable shown on the vertical axis in **Figure 3a** is the proportion of respondents who said that a husband beating his wife is justified if she goes out without telling him or argues with him. Average tolerance for gender-based violence varies considerably across countries, from less than 1% to over 85%, but tends to be higher in poor countries. (The DHS is fielded only in low- and middle-income countries, so the range of GDP per capita examined here is narrower than that in **Figures 1** and **2**. Unfortunately, there is no DHS for China.)

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[2]In contrast, secondary school enrollment was higher among females than males in the historical United States; the United States was exceptional in its mass expansion of secondary schooling in the early twentieth century (Goldin & Katz 2009).

a

$R^2 = 0.000$

Ratio of male to female labor force participation rate

India

China

GDP per capita (log scale)

1,000   4,000   16,000   64,000

○ Americas   ○ Asia and Oceania   ○ Europe   ○ Middle East and N. Africa   ○ Sub-Saharan Africa

b

$R^2 = 0.343$

Agree that men make better business executives than women do

India

China

GDP per capita (log scale)

1,000   4,000   16,000   64,000

○ Americas   ○ Asia and Oceania   ○ Europe   ○ Middle East and N. Africa   ○ Sub-Saharan Africa

Figure 2

(*a*) Gender gap in labor force participation and (*b*) attitudes about women in the labor force. GDP per capita is the purchasing power parity–adjusted value [from World Development Indicators (WDI)] in the year the outcome is measured, expressed in 2011 US dollars. Outcome data are from (*a*) WDI and (*b*) the World Values Survey, wave 5.

Figure 3

Attitudes toward (*a*) gender-based violence and (*b*) female decision-making power. GDP per capita is the purchasing power parity–adjusted value [from World Development Indicators (WDI)] in the year the outcome is measured, expressed in 2011 US dollars. Outcome data are from Demographic and Health Surveys, female respondents.

2.4. Decision-Making Power Within Marriage

An aspect of gender inequality that receives a great deal of attention from academics and policy makers is decision-making power within the household. A woman's say in household decisions is one component of her well-being and thus an end in itself, but the keen interest in female empowerment stems largely from the belief that it is a means of improving children's outcomes (Duflo 2012). The theoretical model that underlies this belief is of a nonunitary household, that is, a household as a collective of individuals with different preferences who vary in how much they influence the household's decisions (Browning et al. 1994). **Figure 3b** depicts one measure of decision-making power, self-reports by female respondents in the DHS about whether they have a say in household decisions about making large purchases. The poorer the country, the less likely the women are to influence these spending decisions. A similar pattern is seen for decision making in other spheres, such as whether to visit family and friends.

The income gradient seen across countries also holds within countries. The DHS computes a country-specific household wealth index. Women above the median wealth level for their country have more decision-making power and less tolerance for gender-based violence than those with below-median wealth (see **Supplemental Table 1**).[3]

2.5. Freedom of Choice and Life Satisfaction

The GDP gradient in women's welfare is also seen starkly in responses to a WVS question about one's sense of control over one's life; respondents were asked to rate "how much freedom of choice and control you feel you have over the way your life turns out." **Figure 4a** shows the ratio of men's to women's responses: Women in developing countries report having relatively less control over their lives than those in developed countries. There is particularly little freedom of choice for women in India, the Middle East, and North Africa. These are also the places with very low FLFP. The correlation between a country's male-female gap in freedom of control and its male-female gap in labor force participation is 0.59.

Another WVS question asks, "All things considered, how satisfied are you with your life as a whole these days?" Women's life satisfaction, relative to men's, is positively correlated with economic development (**Figure 4b**). Two caveats, however, are that the relationship is weaker when using a related question on happiness and that there is no relationship between the gender gap in life satisfaction and GDP in the wave 6 WVS completed so far (see **Supplemental Figure 2**).

3. ECONOMIC UNDERDEVELOPMENT AS A CAUSE OF GENDER INEQUALITY

As shown above, women in developing countries fare worse relative to men compared to women in developed countries on a variety of measures, ranging from college enrollment to control over one's life. In this section, I discuss mechanisms through which economic development itself is the explanation for the positive correlation between gender equality and GDP per capita, that is, reasons that the correlation could reflect economic development

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[3]A similar exercise is not possible with the WDI data because they are national aggregates. The WVS data include an objective measure of household income only for a select set of mainly high-income countries; the WVS outcomes I compare across countries do not vary systematically by household income within a country for this subsample.
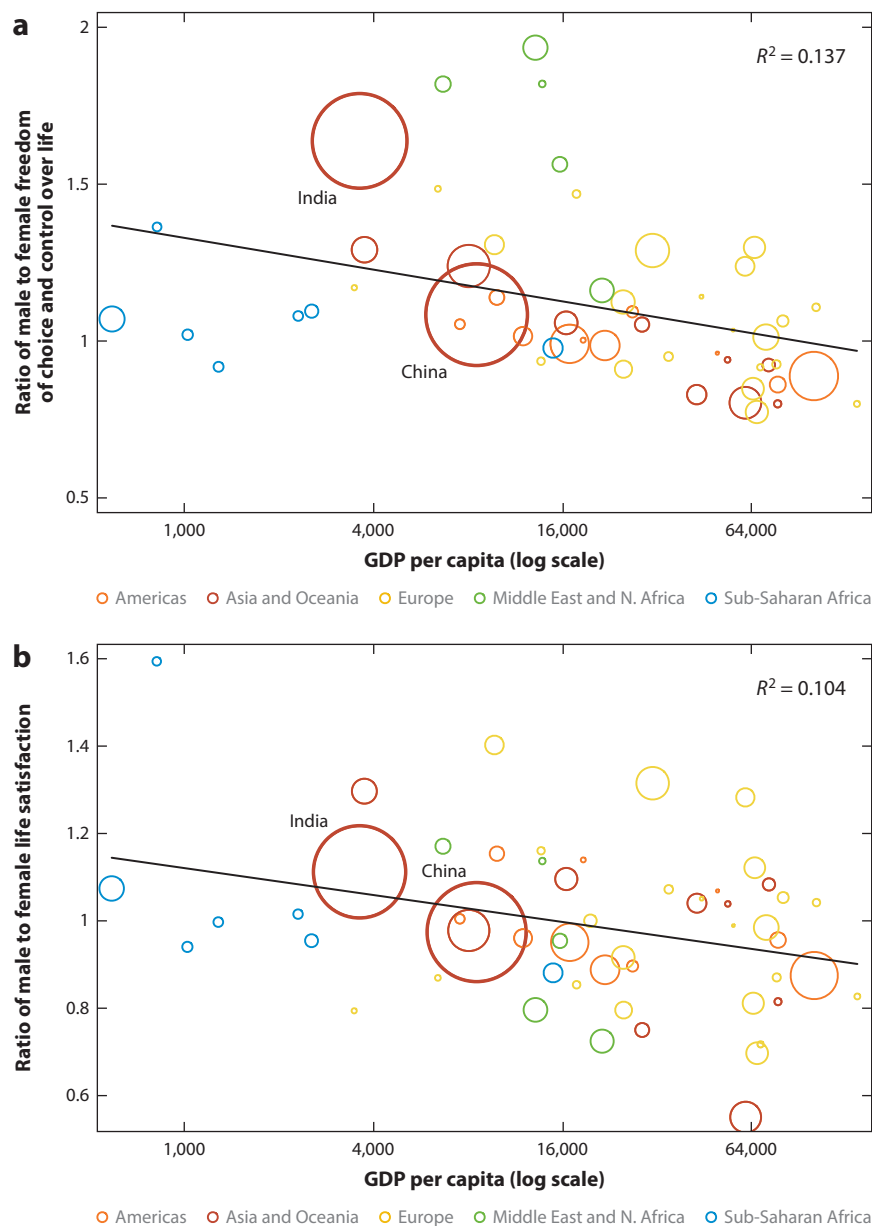
Figure 4

Gender gaps in (*a*) control over one's life and (*b*) life satisfaction. GDP per capita is the purchasing power parity–adjusted value [from World Development Indicators (WDI)] in the year the outcome is measured, expressed in 2011 US dollars. Outcome data are from the World Values Survey, wave 5. The outcome is the male to female ratio in the proportion of respondents who give an answer of 9 or 10 on a scale of 1–10, where a higher number indicates (*a*) more freedom and (*b*) more satisfaction.

causing gender equality. In examining economic development as the explanation, I view the following characteristics as some defining features of economic development: higher household income, better physical infrastructure, more advanced technology, a larger share of the economy

from services, and lower fertility. In Section 4, I then consider explanations that appeal to cultural differences in today's poor countries, although the effect of these factors is in many cases compounded by poverty. Of course, not all mechanisms and pieces of evidence fit neatly into this development-versus-culture taxonomy. However, despite its imperfections, this way of organizing the discussion helps shed light on whether the process of development will eradicate gender inequality.

3.1. Brawn-Based Production

As countries grow, the sectoral mix shifts away from agriculture and manufacturing toward services. In the cross section today, the correlation between a country's share of GDP from services and its log GDP per capita is 0.52. This sectoral transition over the course of development offers one explanation for the worse outcomes for women seen in developing countries. Agriculture and manufacturing generally require more physical strength, or brawn, than services, and men have a comparative advantage in tasks requiring brawn. Thus, relative female labor productivity might increase with development.

Galor & Weil (1996) offer a theoretical model of this phenomenon. In their model, there are physically intensive tasks and mentally intensive tasks, and capital raises the relative returns to mentally intensive tasks. Women have a comparative advantage in mentally intensive tasks. The process of development entails a growing capital stock and thus reduces the female-male wage gap, which in turn causes FLFP to increase. Moreover, there is a positive feedback loop; a higher female wage reduces fertility because the opportunity cost of having children has risen, which pushes up the capital-labor ratio further, accelerating growth.

Lower labor productivity is a potential explanation of not just patterns of FLFP or earnings, but also gender gaps in other outcomes that are influenced by earnings potential. For example, if the main payoff of becoming educated is that one earns a higher wage in the labor market, then men's advantage in labor force participation could lead parents to invest more in boys' education. Agriculture, even though it is more brawn-based than other sectors, has significant returns to schooling (Foster & Rosenzweig 1996). If men specialize in brawn-based occupations and women in brain-based occupations, then at early stages of development boys will receive more education than girls. As brain-based sectors grow, girls should catch up. In fact, if the returns to education are higher in brain-based than in brawn-based occupations, girls' schooling could overtake that of boys (Pitt et al. 2012).

Doepke & Tertilt (2009) propose a mechanism through which higher returns to education in turn can have spillovers to gender equality in other domains. They model men as wanting expanded legal rights for their daughters but restricted rights for their wives. If a man's daughter acquires more rights vis-à-vis his son-in-law, a key benefit to him is that his grandchildren will be given more education; in the model, women care more than men about children's well-being. Thus, when the returns to education increase, men are tipped toward endorsing legal rights for women. Fernández (2014) models a different mechanism through which economic development induces men to support women's rights; in her model, fathers and mothers care equally about children, and the driving forces are rising income and falling fertility rather than increasing returns to education.

Some of the best evidence on the effects of gender differences in labor productivity comes from variation within agriculture. Qian (2008) studies economic reforms in China in the late 1970s that made growing cash crops more lucrative. She posits that women have a comparative advantage in picking tea leaves, which are delicate and grow on short bushes, whereas men's height and strength give them an advantage in picking fruit from trees. Thus, she compares the impact of the economic

reforms in tea-growing regions, where female labor productivity should have especially risen, to regions specializing in fruit orchards, where male labor productivity should have risen most. In tea-growing regions, the reforms led to fewer "missing girls," consistent with families having fewer sex-selective abortions of female fetuses or engaging in less neglect and infanticide of girls. The mechanism she puts forward is that women's share of household income increased, they gained bargaining power in their families, they had weaker son preference than did men, and their gender preference prevailed in household decision making.

Carranza (2014) examines the relative demand for female labor in agriculture within India, using variation in soil type and its suitability for deep tillage. Coarse soil with a low density of clay is suitable for deep tillage, which uses more male labor. She finds that in parts of India with soil suitable for deep tillage, there is lower FLFP and a more male-skewed sex ratio, consistent with the female-bargaining-power effect highlighted by Qian (2008).

In a similar spirit, Alesina et al. (2013) use variation in how much agricultural production plays to men's physical advantages and examine the implications for gender inequality in other realms. What distinguishes their work is that they use variation in the historical division of labor centuries ago and show that it affects gender attitudes and outcomes today. Specifically, they test Boserup's (1970) hypothesis that the tools used to prepare land for cultivation in preindustrial times affected the returns to male versus female labor, and in turn norms about gender roles. Men had a large advantage in using plows, which require a great deal of upper body and grip strength to operate, whereas women were on a more equal footing in the use of hand tools such as hoes. They show that historical plow use in a region is correlated with its current level of FLFP and current gender attitudes, such as agreement with the statement "on the whole, men make better political leaders than women do" among WVS respondents. They find similar results when they use an instrumental-variables strategy that predicts plow use with a region's geographic suitability for crops that lend themselves to plow cultivation.

The type of physical tasks required is not the only factor that affects men's versus women's labor productivity. Men also often have the advantage of more secure property rights. Even if unequal property rights for women are not codified in law, many developing countries rely on informal property rights, in which case women de facto might have weaker rights. Goldstein & Udry (2008) show that in Ghana, people with less social and political power in the community—notably women—face more risk that their land will be expropriated and thus are more reluctant to leave their agricultural plots fallow. This constraint depresses soil fertility and agricultural output on women's land.

The research described above focuses on gender differences in the earnings potential from working, but the decision whether to work also depends on nonpecuniary factors. Over the course of development, a change in the composition of jobs as well as rising income might affect women's willingness (or freedom of choice) to work. Goldin (1995) documents a U-shaped cross-country relationship between economic development and FLFP, and Mammen & Paxson (2000) also find a U-shaped relationship in a comparison of households of varying income within India and Thailand. Building on Boserup (1970), Goldin (1995) posits that the U-shape arises because at low levels of development, the home and workplace are closely integrated and women do unpaid work on family farms and in family businesses. With development, production migrates to factories and firms, and women withdraw from the labor force, especially from manual labor jobs, because of the social stigma men perceive from having their wives work in such jobs. Higher wages mean that the household can afford to forgo the woman's earnings. This transition explains the downward part of the U. With even higher levels of development, the female wage grows because of the sectoral shift toward services and increased female education, which cause women to re-enter the

workforce. Job growth in occupations deemed "respectable" for women, such as clerical work, also helps explain the resurgence in FLFP.[4]

An example of the arrival of new types of "good jobs" for women is business process outsourcing (BPO; e.g., call centers), which has boomed in several cities in India and elsewhere. Jensen (2012) uses random variation in the location of BPO recruitment drives and job placement services to show that women who would otherwise not have worked take BPO jobs. Moreover, the intervention raised young women's career aspirations, led them to enroll in computer and English training courses, and delayed their marriage and childbearing. Meanwhile, for the younger generation, the prospect of these jobs led to a sizable increase in school enrollment. More generally, economic liberalization in India since the 1990s has created white-collar jobs, often relatively well-paid ones, and has drawn women into the labor market, albeit slowly. Ironically, because women lack the strong job networks that men have and are thus not channeled into traditional occupations, they might be able to take advantage of these new job opportunities more than men can (Munshi & Rosenzweig 2006).

3.2. Labor-Intensive Home Production

Economic development is characterized by better physical infrastructure, more advanced technology, and higher household income. This cluster of factors means that home production becomes more efficient and less labor intensive with development. It takes less time to turn on an electric furnace than to gather wood for a wood-burning stove, so electrification is one example of an innovation that reduces home labor. Because women perform the lion's share of household chores, advances in home production mainly free up women's time.

Greenwood et al. (2005) present a model to explain the rise in FLFP over the twentieth century in the United States based on this mechanism. In their calibration, a narrowing gender wage gap explains relatively little of the increase in FLFP on its own. Without technological progress in home production, women's time would still remain tied up at home. Thus, key to the historical expansion of FLFP were the invention and diffusion of technologies that reduced the time spent on fetching water, lugging coal for home heating, and other such chores. Notable advances were central heating, electricity (and the electric consumer durables invented thereafter), and running water. Time spent on home production among prime-age women has indeed fallen sharply in the United States, from 47 h per week in 1900 to 29 h in 2005 (Ramey 2009). The cross-country pattern observed today mirrors the US time trend: The ratio of women's to men's time spent on home production, as well as the absolute amount of time women spend, declines with GDP per capita (see **Supplemental Figure 3**).

▶ Supplemental Material

Dinkelman (2011) finds that electrification in post-apartheid South Africa increased FLFP. She shows supporting evidence that a likely mechanism is reduced time spent on home production, for example, because of a shift away from cooking with wood and toward electric stoves, as well as a greater endowment of productive time owing to electric lights. Coen-Pirani et al. (2010) conduct a similar analysis examining changes in the United States between 1960 and 1970 and find that greater ownership of household appliances is associated with higher FLFP.

Meeks (2014) analyzes the time savings from construction of village water supply systems and shared water taps in Kyrgyzstan. Having water closer to the home led to a savings of 3 h per day per

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[4]Certain jobs being deemed unsuitable for women is a cultural norm, but I discuss it in this section because it appears to be common across societies when they are at low levels of development. Section 4 focuses on cultural factors that are specific to or stronger in the parts of the world that are currently less developed.

household on average. Likewise, in a study based in Morocco, Devoto et al. (2012) find that acquiring a piped-water connection in the home freed up time; people used the extra time for leisure activities, not working more, and self-reported happiness increased. In both these contexts, men and women shared the water-collection responsibilities, so the incidence of the time savings was gender neutral. In many developing countries, however, fetching water falls to women, so the results are suggestive that such infrastructure advances will disproportionately free up women to work outside the home more or enjoy more leisure.

3.3. High Fertility, Risky Fertility

Low fertility is likely both a cause and effect of economic growth, but in any case, a demographic transition that begins with lower mortality and proceeds to lower fertility co-occurs with economic development. That the fertility rate is lower in rich countries helps explain the smaller gender gaps in education, health, and labor market outcomes.

High fertility results partly from high desired fertility but also from limited access to contraceptive methods to control fertility. Miller (2010) analyzes the rollout of a large-scale family planning campaign across Colombia in the 1960s and 1970s and finds that access to contraception delayed the time at which women began childbearing, which in turn led to some increases in how much education they attained, as well as their employment rate. This evidence is consistent with Goldin & Katz's (2002) work showing that access to oral contraceptives transformed the career opportunities of women in the United States, making careers such as law and medicine that require many years of upfront investment more feasible and attractive.

Childbearing is not only more common in developing countries, it is also more dangerous. For these two reasons, 99% of the world's maternal mortality (deaths during or shortly after pregnancy from causes related to the pregnancy or birth) occurs in developing countries (World Health Organization 2014).

Jayachandran & Lleras-Muney (2009) study a period of rapid decline in maternal mortality in Sri Lanka in the 1940s and 1950s, brought about by medical progress and improvements in the public health system. The reduction in maternal mortality risk led to meaningful gains in female life expectancy. Because the years over which girls would accrue returns to schooling rose, the incentive for them to attend school should also have risen. Consistent with this hypothesis, the authors find that the reduction in maternal mortality risk caused girls' schooling to increase and accounts for one-third of the narrowing of the gender gap in education that occurred over the period.

Medical progress reduces not just maternal mortality but also maternal morbidity. Albanesi & Olivetti (2009) argue that a reduction in complications from childbearing, which resulted from sulfa drugs, blood banks, standardized obstetric care, and other medical progress, improved the ability of women to work postpartum in the United States in the middle of the twentieth century. In their model calibration, medical advances can quantitatively explain the large increase in FLFP among married women of childbearing age that occurred in the United States between 1920 and 1965. A second relevant innovation they consider is infant formula, which allowed other caregivers to be closer substitutes for mothers in infant feeding and thus also spurred FLFP.

4. CULTURAL FACTORS THAT CAUSE GENDER INEQUALITY

When it comes to gender inequality, are the poor different from the rich only in that they have less money? The previous section describes several mechanisms that do not lean on cultural differences between the rich and the poor, but there are also several contributors to gender inequality that do

derive from context-specific features. Lack of development still remains relevant even when cultural factors are at play; poverty often exacerbates the cultural forces that lead to favoritism toward males.[5]

4.1. Patrilocality

Many cultures practice patrilocality, in which a married couple lives near or with the husband's parents. When a woman gets married, she essentially ceases to be a member of her birth family and joins her husband's family. Under this system, parents potentially reap more of the returns to investments in a son's health and education because he will remain a part of their family, whereas a daughter will physically and financially leave the household upon marriage. Coresidence of adult sons and elderly parents is much more common in Asia, the Middle East, and North Africa than in Europe, sub-Saharan Africa, and the Americas (Ebenstein 2014).

Within India, the northern region has a stronger patrilocal (and patrilineal) system than the south, which is one explanation for why gender inequality is more pronounced in the north (Dyson & Moore 1983). For example, Chakraborty & Kim (2010) examine the 1901 Indian Census and find that the sex ratio was less male-skewed in the south, a pattern that continues to hold today. More generally, Ebenstein (2014) shows that the male to female sex ratio is positively correlated with the rate of coresidence between adult sons and their parents both across and within countries.

If parents fully internalized their daughters' returns to nutrition, health care, and schooling, then patrilocality would not necessarily cause gender gaps in these inputs. In practice, however, the longer duration that parents coreside and pool financial resources with their sons seems to cause them to invest disproportionately in sons. For example, parents are more likely to seek medical care for a sick son than for a sick daughter. In one study, 405 parents in India who had been advised that their child needed surgery to correct a congenital heart condition were followed up one year later; 70% of the boys but only 44% of the girls had undergone surgery (Ramakrishnan et al. 2011). The financial mindset about investing in daughters is encapsulated in an often-quoted Indian saying that "raising a daughter is like watering your neighbors' garden." This sentiment is echoed in a Chinese proverb that describes raising a daughter as "plowing someone else's field."

Poverty could exacerbate the tendency to invest more in sons than in daughters. Suppose the net returns to surgery are positive for both boys and girls but higher for boys. If a family is liquidity constrained, they might seek medical care only for their son, but with more available resources, they would seek care for both their son and daughter. (The same reasoning could apply if parents invest more in boys because boys have higher labor market returns to health, and not just when the gender gap results from cultural practices.) Consistent with the idea that poverty can widen the gender gap in investment, Rose (1999) finds that favorable rainfall in rural India increased girls' survival more than that of boys. Theoretically, parents' marginal spending need not always benefit the disadvantaged group (Kanbur & Haddad 1994). Oster (2009) reports that better access to health care initially widens the gender gap in vaccinations in India, but further improvements close the gender gap.

4.2. Old-Age Support from Sons

Closely linked to patrilocality is that sons traditionally provide old-age support for their parents in societies such as China and India. Ebenstein & Leung (2010) investigate this old-age support norm as a reason for the desire to have sons in China. When the Chinese government instituted a rural

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[5]Note that I am not dichotomizing economics and culture: Most of the cultural institutions I discuss create economic incentives to favor males. Cultural norms are also sometimes the legacy of historical economic forces in the society.

old-age pension program, parents now had a better substitute for old-age support from sons, and thus their desire to have a son should have abated. The authors show several patterns in the data consistent with this hypothesized effect. Households without sons are more likely to participate in the pension program (and also to have more savings). In addition, having access to the pension program is associated with a less skewed sex ratio.

Here one again sees how culture and development interact. With the rollout of the pension program, the cultural norm that sons, not daughters, support parents did not change, but its implications for the desire to have a son and the skewed sex ratio did change. When a formal institution for retirement savings arose, the informal method of relying on sons became less important, and therefore this force driving son preference became less relevant.

4.3. Dowry System

Dowry is a payment that a bride's parents make to the couple at the time of marriage. According to Boserup (1970), dowry systems emerged mainly in societies where women played a lesser role in agriculture. Dowry has disappeared in many societies, notably in Europe, but it has persisted in, for example, South Asia. In fact, over the past several decades, the prevalence of dowry has increased in Bangladesh, and the real value of dowry payments has risen considerably in India (Rao 1993, Anderson 2007). In addition, the property rights to dowry as practiced today differ from those seen historically in Europe. In ancient Rome and medieval Western Europe, the bride held the rights to the dowry; it was her premortem inheritance from her parents (Anderson 2007). In this formulation, the dowry system was intended to improve the financial well-being of females. However, in societies where dowry is used today, the groom typically controls the money—dowry is the price of a groom. Dowry is thus a financial cost to parents of having daughters.[6]

Evidence on the impacts of the dowry system on women's welfare is mostly anecdotal. This anecdotal evidence points to the dowry system causing pro-male bias. The prospect of paying dowry is often cited as a key factor in parents' desire to have sons rather than daughters in India, for example (Arnold et al. 1998, Das Gupta et al. 2003). The financial burden of dowry indeed seems to loom large in prospective parents' minds. Kusum (1993) describes a billboard that was put up when prenatal sex-diagnostic tests were just arriving in India; a new clinic in the city of Amritsar urged parents to "invest Rs. 500 now, save Rs. 50,000 later." The 500 rupees today was for an ultrasound test, which would tell the parents if their fetus was female; the 50,000 rupees later—which was obvious enough that it did not need to be spelled out on the billboard—was the dowry the parents would save if they aborted the female fetus.

Having to pay a dowry for a daughter's marriage should decrease the desire to have daughters but should not necessarily reduce investments in daughters. In principle, parents could recoup their investment in their daughter's health and education in the form of lower dowry demands or a higher-quality son-in-law. However, this idealized market solution in which parents invest in their daughter's human capital and the groom later compensates them for the investment does not seem to work in practice, perhaps because investments are not fully observable by the groom. In addition, parents have reason to care more about the quality of their daughters-in-law than their sons-in-law because daughters-in-law will live with them under patrilocality and raise their heirs under patrilineality. Besides reducing human capital investments, the dowry system also results in newly married

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[6]Readers are referred to Anderson (2003) and Anderson & Bidner (2014) for models that aim to explain the divergent trends in Europe and India and the historical transformation of dowry into a groom price.

women sometimes being victims of violence or, worse, so-called dowry deaths as punishment for the dowry amount being deemed inadequate by the groom (Bloch & Rao 2002).

4.4. Patrilineality

In a patrilineal system, names and property pass to the next generation through male descendants. This system puts sons on a higher footing than daughters, and the specific feature of land inheritance is especially likely to have effects on gender gaps. For example, in India, because widows traditionally do not inherit their husbands' ancestral property, they rely on their sons as their conduit for holding onto the family property and maintaining their standard of living in widowhood. This consideration might be one reason that the desire to have sons is often not appreciably different between women and men.

Under the Hindu Succession Act of 1956, sons shared the right to inherit ancestral property in India. In the 1980s and 1990s, the law was amended in four states to make daughters' status equal to that of sons. The reforms had some bite: In the sample that Deininger et al. (2013) analyze, 8% of daughters whose fathers died before the reforms inherited land; the proportion increased to 16% among those whose fathers died after the reforms. (Approximately 70% of fathers owned land; the fraction of sons who inherited land remained steady at 70% before and after the reforms.) As a result of the law changes, women's age of marriage rose, consistent with their having more bargaining power within the family and financial independence (Deininger et al. 2013). The reforms also increased girls' schooling, presumably because their mothers were more empowered in the household or because education and asset ownership are complements (Deininger et al. 2013, Roy 2013). However, the legal reforms also seem to have had some negative consequences for women. Anderson & Genicot (2014) find that reforms led to a rise in suicides, which they conjecture is a result of a backlash effect in which the increase in female bargaining power sparked marital conflict.

4.5. Role of Sons in Religious Rituals

In certain belief systems, such as Confucianism in China and Hinduism in India, sons play a special role. Confucianism encourages the patrilineal and patrilocal system in place in China, Vietnam, and elsewhere. But another part of the special role of sons is in rituals. Ancestor worship within Confucianism involves rituals in which a son plays an essential part.

Similarly, son preference is mentioned in the Vedas, the ancient Hindu texts. In addition, in Hindu societies, it is supposed to be a son who lights a deceased person's funeral pyre and brings him or her salvation. Hindu kinship norms are adhered to more strictly among upper castes than lower castes (Mandelbaum 1970), and in their analysis of the 1901 Indian Census, Chakraborty & Kim (2010) find a more skewed sex ratio for upper castes than for lower castes.

The funeral-pyre underpinning of son preference specifically generates a strong desire for one son (with further sons perhaps serving as insurance in case the first son predeceases his parents). Other reasons for son preference, such as wanting someone to carry on the family name or widows wanting to retain family land, also make the first son especially valuable. Consistent with this idea, Jayachandran (2014) finds that parents in India strongly want to have one son and, once they have one son, prefer a balanced gender ratio, more or less.

4.6. Desire to Protect Female Safety and "Purity"

Concern for women's and girls' safety and "purity" constrains their physical mobility in many developing countries. It is difficult to say how much of the limited mobility is out of genuine

concern for women's welfare, aimed at protecting them from harassment and sexual violence, and how much is simply a way to stifle female autonomy. In a cross-country study of mate preferences, men put more weight on their spouse's sexual inexperience at marriage than on physical appearance in India, China, Indonesia, Taiwan, and Iran, whereas the opposite prioritization was seen in each of the 24 European, North American, South American, and sub-Saharan African countries studied (Buss 1989). Restrictions on female mobility often seem largely aimed at keeping unmarried women chaste and married women faithful. In any case, they are a proximate cause of reduced female schooling and career opportunities.

One reason parents cite for not educating their daughters is the distance to school. Burde & Linden (2013) evaluate a school-building initiative in Afghanistan and find that having a school located within one's village matters much more for girls' enrollment; a village school essentially closes the otherwise-large gender gap in enrollment. Muralidharan & Prakash (2013) show that a program that gave girls bicycles to travel to school in India similarly had a sizable impact on girls' school participation. These results suggest that better infrastructure, which comes with economic development, could offset some of the effect that social constraints on girls' mobility have on their education.[7]

Besides distance to school, parents might also want their daughters segregated from male peers or teachers. Kim et al. (1999) evaluate a program in the Pakistani city of Quetta that subsidized the creation of neighborhood private schools in part to meet parents' demand for single-sex schools for their daughters. Similarly, the construction of sex-segregated school latrines boosted adolescent girls' enrollment in India (Adukia 2014). The construction of "girl-friendly" schools—the schools were equipped with sex-segregated latrines, for example—also improved school attendance and academic achievement in rural Burkina Faso (Kazianga et al. 2013).

In a setting in which genders are socially segregated, the benefits of having a same-gender teacher might be especially large. Muralidharan & Sheth (2013) find large same-gender effects on test scores for both boys and girls in India. But girls lose out on the same-gender benefit as they progress becase there are fewer female teachers at higher grades; the gender mismatch can explain 10–20% of the negative trend in girls' test scores as they progress to higher grades.

Another consideration is that parents feel pressure to marry off their daughters early in societies where female chastity is prized by men, which leads to early school dropout. Field & Ambrus (2008) estimate that, in Bangladesh, for every year an adolescent girl's marriage is delayed, she completes an additional 0.22 years of schooling.

The risks associated with female mobility—both objective risk and socially constructed risk to family honor—might also explain the very low FLFP in India, the Middle East, and North Africa seen in **Figure 2a**. One of the tenets of the Hindu caste system is that women should be protected from "pollution," which includes men outside their families. Disallowing women from working outside the home is one way of maintaining their purity (Chen 1995). Because these restrictions apply more stringently to upper-caste women in India, lower-caste women often have more professional flexibility and autonomy (Field et al. 2010, 2014; Luke & Munshi 2011).

Female seclusion (*purdah*) is also an important tenet of Islam, and Muslim women resemble Hindu women in their low labor force participation and low self-reported freedom of choice. A notable contrast is that many of the norms that underlie Hindu parents' desire for sons, such as dowry and bequests only to sons, are weaker or nonexistent among Muslims. Correspondingly,

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[7]One explanation for the female advantage in high school enrollment but disadvantage in college enrollment in the United States in the early twentieth century is that college was farther from home (Goldin & Katz 2009). Thus, distance to school mattering more for females is not unique to today's developing countries.

within India, the sex ratio at birth and child survival exhibit less pro-male bias among Muslims than among Hindus (Borooah & Iyer 2005).

4.7. Persistence of Gender Norms when Economic Conditions Change

One type of evidence that gender gaps do not simply reflect the current economic environment— that culture also matters—is their persistence even when the economic environment changes. Complementing Alesina et al.'s (2013) work on the long-run persistence of gender norms, recent work has shown that gender norms are sticky in the shorter run (e.g., from one generation to the next). Using the US census for 2000 and US birth records, respectively, Almond & Edlund (2008) and Abrevaya (2009) find evidence of missing girls among US residents of East Asian and South Asian origin. The male-skewed sex ratio is concentrated at higher parity and in cases in which all the older siblings are girls, which is consistent with couples having sex-selective abortions when they are trying to have a son but conceive a daughter. If the preference for sons were driven entirely by the local economic environment, we would not expect it to be manifest among those who have immigrated to a wealthy country. Many cultural practices such as dowry and nonemployment of women are abandoned upon immigration, so the economic incentives to prefer sons should be less strong for the immigrant communities. Their continued son preference suggests that gender-related practices are embodied in preferences or beliefs that might have a long half-life.

Fernández & Fogli (2009) also study immigrants to the United States and find that a woman's fertility is predicted by the average fertility in her country of origin; a similar pattern holds for her labor force participation. Fernández et al. (2004) find that if a mother works, her son's wife is more likely to work, further evidence that gender gaps in behavior partly reflect gender norms that are passed along from parents to children. These findings indicate that gender-related behaviors depend on cultural background and not just the economic environment one faces.

5. SEX IMBALANCE AT BIRTH

A particularly troubling form of gender bias is the sex imbalance at birth. Sen (1990) famously highlighted this problem of missing women, which he found to be concentrated in East and South Asia. The dearth of females materializes before birth and in early childhood but continues over the entire lifespan, as emphasized by Anderson & Ray (2010).

The sex imbalance at birth is noteworthy because it has become much worse in several countries over the past 50 years. **Figure 5** plots the sex ratio at birth for China and India; in both countries, it has increased sharply in recent decades. The most recent estimates (from 2012) are that 116 boys are born for every 100 girls in China, and 111 boys for every 100 girls in India. The natural sex ratio is in the range of 103–106.

Figure 6a plots the sex ratio at birth across countries. Two features stand out. First, mirroring the fact that the sex ratio has worsened over time in China and India, the sex ratio is worse in more developed countries. Second, India and China are outliers, with exceptionally male-skewed sex ratios.

5.1. Distinction Between Desire for Sons and Higher Investment in Sons

Parents' favoritism toward boys encompasses both wanting to have sons more than daughters and choosing to invest more in sons than in daughters. These two dimensions of favoritism often go hand in hand, but they are not identical.

Conceptually, parents could have a preference over their number of sons, n_s, and their number of daughters, n_d, that is distinct from their preference over the average quality of each, $\overline{q}_s$ and $\overline{q}_d$. For
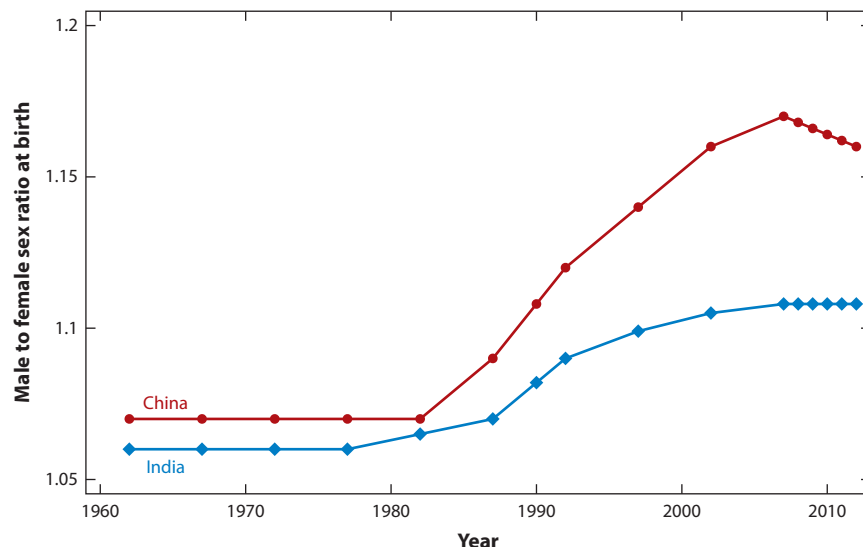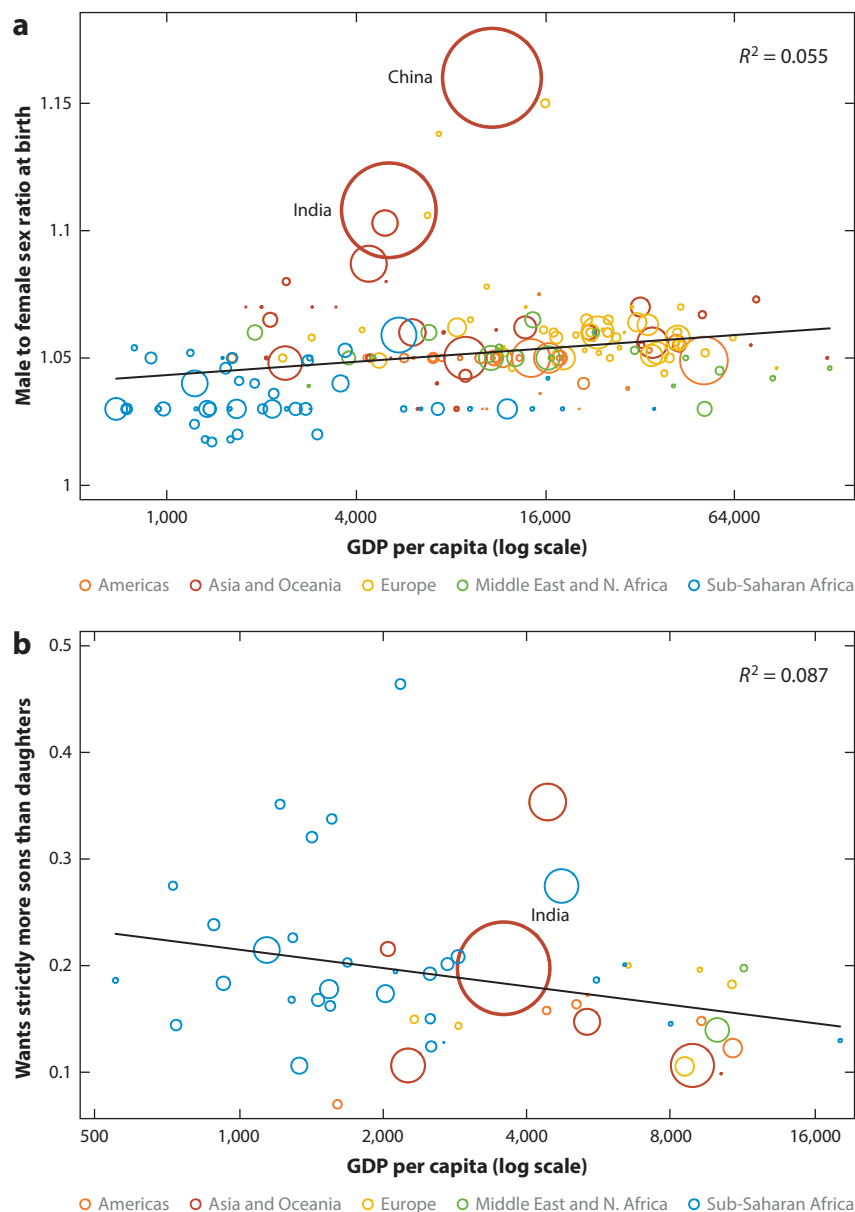
Figure 5

Sex ratio at birth in China and India, 1962–2012. Data are from World Development Indicators.

example, parents might have a preference for sons over daughters but value the quality of both the same. Their utility function $u(n_s, n_d, \overline{q}_s, \overline{q}_d)$ would reduce to $u(n_s, n_d, \overline{q})$. With this utility function, they could still have a strong desire to have a son, represented by $\partial u/\partial n_s > \partial u/\partial n_d$ at $n_s = n_d = 0$.

There are at least two important differences between the quantity and quality dimensions of son preference. First, the fact that India and China are large outliers for the sex ratio at birth but not for investment outcomes such as schooling is prima facie evidence of a distinction between the two dimensions. More generally, there is stronger regional variation in the sex ratio at birth, with African countries generally exhibiting less skewed sex ratios at birth (conditional on GDP per capita) and Asia exhibiting more skewed ratios, whereas gender gaps in human capital exhibit less of this geographic clustering.

Second, although today's rich countries were historically similar to today's developing countries in terms of generally having higher human capital investments in males than in females, they did not exhibit as strong a desire to have sons as seen today in many developing countries. I find that historically in the United States, the sex ratio of last births (SRLB) was not skewed toward males. A male-skewed SRLB is a useful measure of the desire to have sons. A couple who want to have a son but whose first children are girls will often continue beyond their originally intended family size to try again for a son. This fertility-stopping behavior will mean that last-born children are disproportionately male. A skewed SRLB occurs even without infanticide, neglect, or sex-selective abortions—behaviors that lead to a skewed population sex ratio, or sex ratio of all births. The SRLB is the better metric to compare son preference in the historical United States and modern developing countries because the technology in use today to manipulate the population sex ratio (e.g., ultrasound tests) was not available in the nineteenth century, whereas son-biased stopping behavior is feasible as long as there are contraceptive methods to control total fertility.

India exhibits a strongly skewed SRLB. Using the 1992 DHS, I find that the SRLB was 1.34, that is, 1.34 boys for every 1 girl among the youngest surviving children of mothers. The

Figure 6

(*a*) Sex ratio at birth and (*b*) desire for sons. GDP per capita is the purchasing power parity–adjusted value [from World Development Indicators (WDI)] in the year the outcome is measured, expressed in 2011 US dollars. Outcome data are from (*a*) WDI and (*b*) Demographic and Health Surveys, female respondents.

calculation restricts the sample to cases in which the youngest child is age 10 or older, or born before 1982, both because the use of earlier birth cohorts limits the likelihood of prenatal sex

determination (ultrasound machines were scarce in India until the mid-1980s) and because this sample of women is likely to have completed their fertility.[8]

The United States in 1809 had the same purchasing power parity–adjusted GDP per capita as India in 1992. However, contraception availability was limited, so I use a later US census, specifically 1860, as a more appropriate comparison group. Making the same sample restrictions as above, the SRLB in the United States in 1860 was 1.04—not male skewed at all.[9] This lack of son-biased fertility-stopping behavior is evidence that, historically, parents in the United States did not have a strong desire for sons. In contrast, during this same time period, the United States did exhibit other gender gaps that resemble what is seen in developing countries today, such as a smaller female advantage in life expectancy and low FLFP, especially among married women (Preston 1976, Goldin 1986).

The two differences above suggest that although economic development could go a long way in explaining the gender gap in human capital investment, it does considerably less well in explaining the preference over the number of sons versus daughters. The desire to have a son appears to have strong cultural roots and thus might be slow to fade even as the economies of countries such as India and China grow rapidly.

Interestingly, one way the quantity and quality dimensions of gender bias are entangled is that the desire to have sons can cause gender gaps in investments even if parents derive the same utility from boys' and girls' quality. For example, son-biased stopping behavior means that girls will tend to grow up in larger families than boys (Yamaguchi 1989, Clark 2000, Jensen 2003). Given fixed financial resources, girls will thus be raised in families that have fewer resources to spend on each child. In addition, Jayachandran & Kuziemko (2011) show that because women in India want to and are more likely to become pregnant again after a daughter is born, they stop breastfeeding girls sooner to regain their fecundity or as a result of the new pregnancy. Daughters will be breastfed for a shorter duration than boys, which is likely detrimental to their health, even without parents having an explicit preference to provide more health inputs to sons.

5.2. Distinction Between Desire for Sons and Sex Imbalance

As seen in **Figure 6a**, the sex ratio is less skewed in poorer countries. In contrast, the desire to have more sons than daughters is more intense in poorer countries, as shown in **Figure 6b**, which is based on a DHS question that asked respondents about their ideal number of sons and daughters. The sex imbalance at birth is an aspect of gender inequality that seems to be aggravated by development, even though the desire to have sons fades with development.

One reason that the sex imbalance is worsening, even though son preference is not, is technological innovation. Infanticide and neglect of infant girls have long been (proximate) causes of missing women, but the ability to ascertain the sex of a fetus has given rise to sex-selective

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[8]Sex-selective abortions occur disproportionately at last births, which makes the SRLB more skewed. In the 2005 DHS for India, the SRLB is 1.48. Declining desired fertility likely pushed the SRLB higher too; couples who want a small number of children will often fail to have a son naturally within that number. I also limit the sample to cases in which the youngest child is below age 15 and resides with the mother for consistency with the US analysis; for the US analysis, I use children below age 15 because older children who have left the household cannot be matched to their mother in the census. Conversely, in the US analysis, I limit the sample to mothers age 49 and younger for consistency with the DHS sampling rule. The results are very similar when I vary these restrictions.

[9]I repeat the exercise with the 1900 census because desired total fertility affects whether families need to try again for a son, and the US fertility rate in 1900 was comparable to India's rate of 3.7 in 1992. The SRLB in the 1900 US census was 1.02. The child mortality rate is higher for males than for females, which likely explains why the sex ratio of children was slightly lower than the natural sex ratio of births.

abortions and has dramatically exacerbated the problem of the skewed sex ratio. Chen et al. (2013) estimate that about half of the increase in the sex imbalance in China is explained by access to ultrasound. Lin et al. (2014) find that this technological advance also played a large role in driving the skewed sex ratio in Taiwan.

Another factor behind the worsening sex ratio is declining fertility. For example, conventional wisdom is that the extremely skewed sex ratio in China is a result of the country's one-child policy; constrained to have only one (or two) children, couples use sex-selective abortions to ensure that they have at least one son. Consistent with this idea, in the parts of China where the penalties for violating the one-child policy were more onerous, the sex ratio was more imbalanced (Ebenstein 2010).

Jayachandran (2014) shows that the desired sex ratio in India is more male-skewed at low fertility levels. Individuals express a strong preference to have at least one son, not a general preference to always have sons rather than daughters. When parents want to have three or four children, the likelihood of naturally ending up with no sons is relatively small, but this undesired scenario becomes more likely when couples want to have one or two children. Therefore, as couples' desired family size gets smaller, for example, because of a higher female wage, which raises the opportunity cost of having children, they are more likely to resort to sex-selective abortions to obtain their desired son. The conceptual upshot is that the sex ratio is not a measure of son preference per se; it is the realization of one's son preference combined with one's family size preference (Jayachandran 2014). **Figure 6** conveys the message that son preference—the desire for sons—might decline with development, but the problem of the sex imbalance at birth appears to worsen with development, at least over a certain range.

6. POLICY APPROACHES TO REDUCE GENDER BIAS

The existence of culturally rooted gender norms means that even when India and China advance to today's level of US GDP per capita, they might not advance in terms of their desire to have sons, the decision-making power of women, and so forth. Eliminating gender inequality might require explicit policy intervention. Moreover, one might not want to wait patiently as the problem of gender inequality resolves itself via economic growth.

One type of gender-progressive policy is granting legal rights to women. A powerful example of this tool is India's move to reserve political seats for women. A fraction of seats at various levels of government are, by mandate, held by women. The most direct impact of the law change on women's welfare has been to close the gap in women's representation; female leaders implement policies that better reflect the policy preferences of their female constituents (Chattopadhyay & Duflo 2004). Moreover, this reform has begun to reshape attitudes toward women as leaders (Beaman et al. 2009) and raised the aspirations of and long-term investments in girls (Beaman et al. 2012).

A limitation of legal reforms is that enforcement is often weak. For example, the legal reform granting women rights to ancestral land in India described above has some bite, but it is far from universally enforced. Similarly, bans on prenatal sex determination, dowry, and child marriage are often minimally enforced.

A second policy tool is financial incentives for parents to invest in or have girls. For example, many states in India offer incentives to have daughters (Anukriti 2014). In addition, many conditional cash transfer programs such as Progresa/Oportunidades in Mexico give a larger financial incentive to educate girls than boys, responding to the higher dropout rate of girls (Schultz 2004).

Another approach is to shift household financial resources to mothers based on the hypothesis that more influence in the household for women will help break the cycle of gender discrimination because women have less pro-boy bias than men do. There are several pieces of evidence that girls' outcomes improve when women control a larger share of household income (Thomas 1990, Duflo 2003).

An important caveat to this approach is that the differences between men and women in their gender attitudes are sometimes surprisingly small, or even go in the counterintuitive direction. In India, tolerance for gender-based violence (based on the DHS question depicted in **Figure 3a**) is 37% among women and 33% among men. Similarly, when asked about their ideal sex composition of children, 20% of women and 19% of men wanted strictly more sons than daughters. In other cases, women do state more progressive gender attitudes than men but not by a wide margin. For a WVS question about whether a university education is more important for boys than for girls, in China 23% of men and 18% of women agree with the statement. The similar gender attitudes of men and women imply that more decision-making power for mothers might not necessarily translate into significantly better treatment of girls.

Why are women's attitudes not more progressive? Their views might be shaped by practical concerns. For example, women gain status in the household and enjoy greater well-being once they give birth to a son (Li & Wu 2011, Milazzo 2014). In addition, the lack of role models for women means that they might simply fail to realize that equality for women is possible (Beaman et al. 2012).

Thus, another policy approach is to try to change women's attitudes, whether by creating a cadre of role models or by other means. Despite not having this explicit goal, commercial television appears to have reshaped women's views, for example, about having a smaller family size, in Brazil and India (Jensen & Oster 2009, La Ferrara et al. 2012). Changing men's attitudes might be equally important. On the one hand, mothers' gender attitudes appear to be more influential than those of fathers in shaping children's gender views (Dhar et al. 2014). On the other hand, fathers typically have more say in the household about decisions affecting girls, such as how much to spend on their education.

7. CONCLUSION

This article shows that gender gaps in several domains are large in developing countries. Should we expect these gender gaps to shrink and disappear over time? Above I lay out several mechanisms through which, as countries grow, women's lot should improve. First, a sectoral shift away from agriculture toward services occurs. Second, technological advances reduce the time needed for household chores. Third, the frequency and risk of childbearing decline. Each of these factors increases women's participation in the labor force, which in turn increases human capital investment in girls and women's personal autonomy.

However, I also describe certain cultural practices that could make gender inequality in today's poor countries persist even in the face of economic growth, such as patrilocality and male-centered funeral rituals. These cultural norms help explain the extremely male-skewed sex ratio in India and China, for example. Similarly, the anomalously low FLFP rate in India, the Middle East, and North Africa is likely rooted in the high value these cultures place on women's "purity." The cultural institutions favoring males might themselves fade naturally with economic modernization, enabling gender gaps to close, but there is also scope for policy makers to expedite the process.

SUMMARY POINTS

1. Along several dimensions, there is greater gender inequality in poor countries than in rich ones.
2. Three key elements of the development process increase women's participation in the labor force, which in turn increases human capital investment in girls and women's personal autonomy: growth of the services sector, technological advances in home production, and reduced risk and frequency of childbearing.

3. In many poor countries, the desire for sons and constricted opportunities for women are exacerbated by cultural practices and norms.
4. India, the Middle East, and North Africa stand out for their very low female employment and freedom of choice for women, which appear to be rooted in these societies' concern for women's "purity."
5. The extremely male-skewed sex ratio at birth in India and China is rooted in cultural practices that create a strong desire to have at least one son, such as patrilocality, patrilineality, and religious rituals performed by sons.
6. The quantity and quality dimensions of son preference—that is, the desire for sons and higher human capital investment in sons—have important differences.
7. The skewed sex ratio at birth has been getting worse with economic development owing to the advent of prenatal sex-diagnostic technologies and declining desired fertility.
8. Although gender inequality in developing countries will likely diminish with economic growth, policy makers have several options to hasten the process.

DISCLOSURE STATEMENT

The author is not aware of any affiliations, memberships, funding, or financial holdings that might be perceived as affecting the objectivity of this review.

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