GENDER SCRIPTS AND AGE AT MARRIAGE IN INDIA*

SONALDE DESAI AND LESTER ANDRIST

Research on marriage in developing countries has been somewhat narrow in scope because of both conceptual and data limitations. While the feminist literature recognizes marriage as a key institutional site for the production and reproduction of gender hierarchies, little is known about the processes through which this relationship operates. This article uses data from the newly collected India Human Development Survey 2005 for 27,365 ever-married women aged 25–49 to explore ways in which different dimensions of gender in Indian society shape the decisions regarding age at marriage. We explore the impact of three dimensions of gender: (1) economic factors, such as availability of wage employment, dowry expectations, and wedding expenses; (2) indicators of familial empowerment, such as women's role in household decision making and access to and control over resources; and (3) markers of gender performance, such as observance of purdah and male-female separation in the household. Results from hierarchical linear models confirm the importance of markers of gender performance but fail to demonstrate a large role for economic factors and familial empowerment.

A recent review of literature on timing of first marriage in developing countries concluded that in spite of 30 years of research on nuptiality, little is known about the determinants of changes in marriage timing (Mensch, Singh, and Casterline 2005); the authors exhorted that "...to better understand the dynamics of union formation, demographic surveys must collect information on the social, cultural, and economic factors....including the contextual factors that reflect the opportunity structures available" (p. 29). Gender relations in society form an important backdrop for marriage behavior (Presser and Sen 2000), yet the ways in which gender context shapes marriage timing remain poorly understood (Germain 1997). While some of these shortcomings may be associated with lack of data (Lloyd 2005), shortcomings in conceptual underpinning also play a role.

The theoretical literature on gender consistently acknowledges that gender is multidimensional (Collins et al. 1993; Malhotra, Schuler, and Boender 2002; Mason 1986; Narayan 2006). However, in practice, only limited aspects of gender have received attention. As Collins et al. (1993:186) noted, "most gender theories are based on a particular range of empirical materials. Thus, many theories appear to be at least partially true. The problem is that they are not comprehensive, and they lack explanatory leverage outside of a particular context." We argue that demographic research has particularly ignored the symbolic dimension of gender. Inattention to symbolic aspects of gender leads to theoretical models that are poorly suited to studying marriage, especially in developing countries.

A focus on symbolic aspects of gender is relevant in the context of marriage timing in South Asia in general and India in particular. Marriage has historically been universal and remains so (Das and Dey 1998), and while age at marriage has risen slowly, largely through declines in child marriages, mean age at marriage remains below 20. At the same time, India also shows substantial diversity in age at marriage, particularly for very early

marriage. National Family Health Survey III documented that even among recent cohorts of women aged 18–29, 52% of the women were married by age 18 in Uttar Pradesh; corresponding proportions were 25% in Tamil Nadu and 17% in Kerala (International Institute for Population Sciences and Macro International 2007). This regional diversity in marriage timing is accompanied by well-recognized regional diversity in different dimensions of gender (Dyson and Moore 1983), allowing for an opportunity to examine the ways in which the gendered context might be linked to age at marriage.

In this article, we develop a theoretical framework focusing on different dimensions of the gendered context in India and examine its relationship with age at marriage. Using data from the India Human Development Survey 2005 (Desai et al. 2009), a nationally representative sample of 27,365 ever-married women aged 25–49, we empirically examine the relevance of these theoretical constructs in shaping the variations in age at marriage.

LITERATURE REVIEW

As we develop a theoretical model linking gender and marriage, it is important to remember that individuals are located within families and wider kin networks. Since marriage is a deeply personal behavior, it is not surprising that the literature has tended to focus overwhelmingly on individual choices and societal factors shaping these choices (Lesthaeghe and Surkyn 1988; Oppenheimer 1988; Retherford, Ogawa, and Matsukura 2001). However, when it comes to studying societies in which families play an important and often dominant role in the marriage process, it is particularly crucial to look beyond individual decisions to focus on what the marriage of a son or a daughter represents for parents.

Marriage systems in many parts of the world, including southern Europe in the eighteenth and nineteenth centuries, have been dominated by the influence of the corporate family. In societies where individuals are closely linked to extended families, marriage decisions also retain the imprimatur of the family. Extended family residence and joint property-holding often keep the economic fortunes of individuals tied to their families. However, purse strings are not the only ties that bind; individuals' social nexus are often determined by the ties of kinship, caste, and clan, whose social status is enhanced or diminished by the selection of a marriage partner, age at marriage, and the manner in which marriage takes place (Bloch, Rao, and Desai 2004; Fricke, Syed, and Smith 1986; Malhotra and Tsui 1996; Thornton and Fricke 1987; Uberoi 1993). Modernization theories that posit marriage as an individually-driven phenomenon often fail to provide a satisfactory account of the linkages between gender and marital patterns, resulting in calls for a focus on a better understanding of contextual factors (Hirschman 1985; Malhotra and Tsui 1996; Niraula and Morgan 1996). Hence, in this article, we develop a theoretical framework linking gender and marriage timing, keeping in mind a social context within which marriage decisions are overwhelmingly made by the corporate family.

Gender: A Multidimensional Construct

Several decades of scholarship—much of it from feminists—has left us with a rich legacy of perspectives for studying gender. However, as documented by a series of reviews (Ferree 1990; Presser 1997; Riley 1997; Thompson and Walker 1995; Watkins 1993), translating these theoretical insights into empirical research has proven to be far more challenging; consequently, empirical studies have tended to adopt a somewhat ad-hoc approach in the specific dimensions of gender that are being studied, a shortcoming we seek to address.

Three distinct but interrelated streams of literature have interesting implications for the present article. First, *rational decision making* theories suggest that households respond to external constraints in ways that maximize benefits to the household. Whether these benefits accrue to the household head or to all members remains a matter of lively debate, but the focus of attention here is on institutional and labor market structures that shape individual rationality (Becker 1993) and create gendered specialization in home and

market responsibilities (Schultz 1974). Second, *empowerment theories* focus on households, social institutions, markets, and the state as sources of patriarchy; they explore women's subordination, with a focus on the interrelationship between objective resources and subjective sense of self-efficacy and entitlement (Kabeer 1999; Malhotra et al. 2002; Narayan 2006). Third, *performance theories* suggest that men and women engage in a visible display of gender in which a stylized mode of interaction may indicate deference or dominance (Goffman 1976). This approach focuses on the symbolic nature of gender, which shapes choices and limits actions based on the actor's sex and leads individuals to consistently act in a way that produces gendered behaviors in day-to-day interactions (West and Zimmerman 1987). Each of these approaches can be adapted to the study of gender and marriage timing in a society where a preponderance of marriages are arranged.

Economic context. Rational decision making theories imply that parents respond to economic incentives and constraints as they choose optimal marriage timing for their daughters. In different parts of Asia, availability of wage work for women increases the returns from daughters and may lead to delayed marriage (Greenhalgh 1985; Wolf 1994). This is a particularly important consideration in India. Research on Indian labor markets has documented a high degree of underemployment, with very low wage employment rates, for both men and women (Desai and Das 2004). Among women aged 15 and older, only 16% of rural women and 11% of urban women claim wage work as their primary activity. Most wage work for women (and men) involves casual day labor, and the demand for agricultural labor varies tremendously across different regions. Hence, if economic rationality influences parental choices, living in areas where there is greater availability of wage employment may result in postponement of marriage.

Wedding expenses and dowry may also influence economic considerations surrounding marriage timing. A number of studies have recorded a sharp increase in dowry expectations, with a dowry consisting of both cash and expensive household goods, such as a refrigerator or car. Increases in wedding expenses have also been noted by commentators (Bloch et al. 2004). Increased expenses associated with a daughter's marriage may lead to postponement of marriage as parents struggle to accumulate resources in order to provide appropriate dowry and pay for the wedding (Caldwell, Reddy, and Caldwell 1983; Schlegel 1993)

Empowerment of women. The economic arguments discussed in the previous section rely explicitly or implicitly on economic models of the household and assume an internally consistent and unified decision-making structure within the household, with little attention to the household as a site for construction of gender inequalities (Dwyer and Bruce 1988; Folbre 2001). In contrast, feminist scholarship on empowerment pays close attention to intrahousehold inequalities.

Whatever the imperatives driving the household as a whole, entry into a married state is viewed by most brides—particularly very young brides—with considerable trepidation. More than 90% of the new couples in India begin their married life living with the groom's parents. An incoming daughter-in-law is expected to conform to the lifestyle of a new family. Consequently, although most girls expect to get married at an appropriate time, few girls are eager to be teenage brides. In India, marriage decisions remain within the purview of the family. However, this should not be taken to mean that women have no say in a decision that intimately affects their lives. Mothers and older sisters-in-law are often asked to ascertain the wishes of the young women. While this is far from having full-fledged agency, we expect that in areas where women have a greater role in making decisions about different aspects of their lives, women's input into their own marriages may be more welcomed than in areas where women's autonomy is more limited. Since few girls choose to marry at a very young age, it seems reasonable to expect that women's empowerment is negatively associated with age at marriage. Age at marriage may also be related to women's autonomy through another channel: because younger brides are more likely to be docile, in

areas where parents-in-law seek to limit women's power in the household, they may have a preference for younger brides.

Women's autonomy can be measured in a variety of ways (Narayan 2006), but women's access to and control over resources is a fundamental aspect of autonomy. For instance, a woman's autonomy may be manifest through her control of major resources, such as having her name on a housing title or rental agreement, as well as through control of minor resources, such as having cash on hand for household expenditures. A number of studies have also suggested that the ability to make decisions regarding a variety of household choices is an important part of women's empowerment (Bloom, Wypij, and Das Gupta 2001; Jejeebhoy and Sathar 2001; Kishor 2000; Morgan et al. 2002). This includes such decisions as purchasing expensive goods, children's healthcare, and marriage decisions.

Gender scripts. The gender empowerment literature directs our attention to the intrahousehold divisions and exercise of gendered power and has been used successfully in many research domains (Malhotra et al. 2002; Presser and Sen 2000). However, it has limited utility for understanding the symbolic dimensions of gender. Here the concept of gender scripts has something to offer.

Performance theory—a subset of the new semiotic school of the sociology of culture— allows us to focus on the ways in which social actors use culture to fabricate meaning in and of their own lives (Kaufman 2004). Research on gender performance suggests that many domains of women's lives that are generally considered to be private or personal are shaped by powerful ideologies, and women frequently have only a limited repertoire of behaviors from which they can choose (West and Zimmerman 1987). Extending it to the topic at hand, we argue that marriage is part and parcel of a repertoire of actions through which families create visible displays of gender.

The notion of scripts that frame actors' day-to-day behavior and yet are constantly modified as actors face competing demands provides an interesting framework for a study of marriage in India. Our travels across India document wide diversity in the way gender is performed. The practice of purdah or _ghunghat_[1] is probably the most visible marker or public performance of gender, and it varies from saris rendering women virtually invisible to prying eyes in north-central India, to a polite nod at segregation when a sari is hastily pulled over the forehead in Gujarat, to a total absence of purdah in southern India. In addition to purdah or _ghunghat_, there are many other more subtle markers of gender segregation. In some parts of India, it is common for men and women to eat together; in others, segregation within the family would make it unthinkable for a young daughter-in-law to eat with her father-in-law. Restrictions on women's physical mobility is yet another marker of gender segregation in which women must seek permission from family elders before venturing outside the home to visit health centers, friends' homes, or the local bazaar, and often must be accompanied. Steve Derne, in his qualitative work in Banaras (Varanasi) in north India, noted that "in every interaction in which a husband gives his wife permission to go outside the home, he reconstitutes the normal state of affairs in which restrictions on women are necessary" (Derne 1994:210).

Gender segregation is not necessarily a marker of gender inequality in the household. Secluded women may retain substantial power in the household, and women with considerable freedom of movement may not find that this freedom translates into control over economic resources. This observation is consistent with a host of demographic studies of gender that have remarked on the multidimensionality of gender inequality (Kishor 2000; Mason 1986). For our work, the value placed on performance—as measured through gender segregation—is particularly important.

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1. _Ghunghat_ is a Hindu term, and _purdah_ is a Muslim term; both refer to covering the head and/or face in order to seclude women from contact with men outside—and sometimes inside—the family.

Indian Literature on Gender Scripts

Unlike economic rationality and empowerment theories, an emphasis on gender scripts is inherently tied to the meanings individual actors place on their actions and remains culturally specific. In India, gender scripts reflect both culture in action *and* status in action. Two different lines of research have focused on symbolic representation of gender and gender performance in India. Noted Indian social anthropologist M. A. Srinivas first identified the role of women as custodians of family status and caste purity (Srinivas 1977). Castes attain higher status by higher adherence to the classical "Sanskrit" way of life by prohibiting remarriage for widows and ensuring that women are immured from the external world and its pollution. But while focusing on the notion of "Sanskritization," the process through which castes manipulate their ritual status by embracing gendered practices, Srinivas also acknowledged that this might conflict with other forces, such as modernization and Westernization. Srinivas's work has been highly influential for several generations of scholars working within this framework, including those researching gender and caste (Dube 1996, 2001) and status production through female seclusion (Papanek 1973).

The other stream of literature in India that has examined symbolic aspects of gender and its use in the nationalist discourse stems from the work of Partha Chatterjee, who has written persuasively about the construction of modern Indian womanhood in the context of the Indian nationalist movement; Chatterjee suggested that the projection of Indian womanhood as decorous, pious, and modest set the stage for demonstrating the superiority of Indian culture against the British colonial state (Chatterjee 1989). In the late nineteenth and early twentieth century, defining the age of consent or legal minimum age at marriage became the principle site of collision for colonial ideology and the nationalist movement and of the nationalist movement's alternative construction of ideal Indian womanhood. The Age of Consent Act of 1891 set a minimum age for a "consenting" bride at 12. Nationalist Indians saw this as an attack on Indian religious autonomy, and a vigorous protest emerged, led by a charismatic Indian politician, Balgangadhar Tilak (Heimsath 1962). A subsequent increase in the minimum age at marriage to 14 in 1929 through what came to be known as the Sharda Act also led to significant protests. The positioning of Indian women of refinement against their Western counterparts emerged as a response to the colonial state and Western discourse, which continually saw Indian women as dispossessed and subjugated (Chatterjee 1989).

Although the resistance to the colonial construction of early marriage may be less relevant after 60 years of independence, other practical concerns persist. One of the greatest concerns for most parents is to arrange a marriage for their daughter into a "good" family in which she would thrive. Although the definition of a "good marriage" may vary across families, there is a universal concern that nothing should damage the value of a daughter in the marriage market. It is difficult to find data on premarital sex, but studies indicate that less than 5% of women acknowledge having sex before marriage, and often this includes premarital sex with men they subsequently marry (Santhya and Jeejeebhoy 2007). Popular literature, films, and social science literature all emphasize a fear of women's sexuality, particularly among upper class and upper caste families, and suggest that even a possibility that the bride may not be a virgin reduces her desirability to her prospective parents-in-law. In practice, a girl does not even have to be sexually active to be labeled promiscuous. Simple contact and platonic friendships with the opposite sex can be enough to damage her reputation (Caldwell et al. 1983; Caldwell et al. 1998; Lindenbaum 1981).

An article on modernity in middle-class urban India noted a persistent male preference for modesty and femininity even under the onslaught of the global culture (Derne 2003). Another study in Mumbai recorded young men's preferences for family-oriented, "simple" wives who "respect elders" (Abraham 2001). Underscoring these findings is a preoccupation with women's modesty that does not allow deviation from normative age at marriage for women, while it is far more easily permitted for men (Leonard 1976).

However, this concern with women's sexual purity is neither universal nor predominant across class and geographic boundaries (Mendelbaum 1988; Papanek 1973). Reification of women's modesty is the privilege of upper social classes, and higher caste status is often demonstrated through such reification (Kapadia 1995; Liddle and Joshi 1989; Rao 2003). Lower class and lower caste women rarely have the privilege of secluding themselves. Similarly, casual contact with men is viewed with much greater fear in certain areas of the country than others. Political movements in some areas have mobilized women and erased some of the boundaries between the sexes (Kannabiran and Lalitha 1989). Tribal communities have been less influenced by the Hindu preoccupations with sexual purity (Bhasin 2007); consequently, areas with a high concentration of tribal population have a less restricted environment. Thus, a comparison of age at marriage across different parts of the country, which differ in the symbolism attached to different types of gender scripts, allows us to get a better handle on the extent to which early marriage is part of these scripts.

RESEARCH QUESTIONS AND OPERATIONALIZATION

The preceding discussion has focused on three different dimensions of gender: economic rationality, women's empowerment, and gender scripts. Following in the footsteps of much of the recent conceptualization of gender as a multidimensional concept (Agarwala and Lynch 2006; Mason 1995; Mukhopadhyay and Higgins 1988), we attempt in this article to understand which of these various dimensions may be related to shaping age at marriage in India. Thus, we seek to answer two central questions: (1) Are different dimensions of gender related to age at marriage in India? (2) If so, are they equally important, or are some dimensions more important than others?

Our research strategy relies on the substantial variation in both marriage timing and different dimensions of gender across India. India is rich in diversity, particularly with respect to marriage and kinship patterns, gender roles and ideologies, and economic structures across states (Basu 1993; Jejeebhoy and Sathar 2001; Singh 2005). Even within a single state, there can be large differences across different regions. For example, South Kanara in southern Karnataka is a matrilineal society with more egalitarian gender relations, while northern Karnataka is relatively inegalitarian with women experiencing more restrictive norms. Hence, a focus on regional diversity in age at marriage allows us to disentangle the relationship between different dimensions of gender and age at marriage.

We operationalize different dimensions of gender by measuring them at a regional or district level.[2] In keeping with our earlier discussion of factors that motivate parental decisions regarding their daughters' marriage, we argue that regional context plays an important role in these decisions. Individuals who live in areas characterized by high dowry are affected by different constraints than those living in areas where dowry is less prevalent. Similarly, the symbolic dimension of gender is shaped by the cultural traditions of the region. For example, the way purdah is viewed and what it is meant to demonstrate differs by whether a *hijab* (a scarf or veil) is donned by a woman in Egypt or in France. Focusing on gender at a district rather than an individual level has another advantage: it allows us to transcend the issue of endogeneity because age at marriage and various markers of gender relations may be reciprocally related at an individual level.

Districts in India reflect administrative boundaries as well as historical realities in which various princely states differed from one another in the cultural and linguistic composition of their inhabitants, and many studies of Indian society have taken districts as an

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2. Migration complicates this analysis because data are derived from women's district of current residence. However, labor migration in India is relatively low—less than 3% for women—and the migration flow is dominated by short-distance migration of women for marriage. National Sample Survey data (National Sample Survey Organisation 2001) show that among rural women migrants, 95% migrated within the same state and 74% migrated within the same district; the corresponding numbers are 83% and 45% for urban women. When women marry outside the district, it is usually in an adjoining district with similar social structure and characteristics.

important unit of analysis (Kishor 1993; Malhotra, Vanneman, and Kishor 1995; Murthi, Guio, and Dreze 1995). In this article, data from individuals are aggregated at the district level—separately for urban and rural residents—to provide us with different markers of gender to which families respond as they arrange marriages.[3]

Access to a unique survey allows us to examine these relationships empirically. Researchers from the University of Maryland and National Council of Applied Economic Research (NCAER) in New Delhi collaborated in designing and fielding the India Human Development Survey 2005 (IHDS). The IHDS is a nationally representative sample of 41,554 households spread over 33 states and union territories (Desai et al. 2009). The survey includes a household module as well as a module administered to 33,510 ever-married women aged 15–49. For this analysis, the contextual indicators of gender are aggregated at the district level (separately for urban and rural areas) for all of the 33,510 women surveyed. Using a hierarchical linear model, we then regress these measures on age at marriage of the individual women. Due to the selectivity involved in including only ever-married women in our analysis, we restrict our analysis of age at marriage to 27,365 women aged 25–49. As indicated by the Indian census of 2001, by age 25, over 95% of women had ever been married. Thus, in omitting women who were below age 25 from the analysis, we seek to minimize an overrepresentation of women who marry at young ages.

Descriptive statistics for the variables included in this analysis are presented in Appendix Table A1. When age at marriage is missing or inconsistent, it is imputed using the procedure widely used in Demographic and Health Surveys conducted by Macro International (Croft 2008).[4] In order to differentiate between gender systems in urban and rural areas, in each district, we treat urban and rural samples separately in calculating various community-level variables. Our sample from 383 districts gives us 495 relevant communities.[5]

Our preceding literature review and theoretical discussion focus on three dimensions by which gender relates to age at marriage: economic context, women's empowerment within the household, and markers of gender performance or gender scripts. Each dimension is measured using a set of underlying constructs and is operationalized using district-level averages generated from the IHDS data. Specific constructs, their operationalization, and the hypothesized direction of their relationship with age at marriage are shown in Table 1.

Rationale for Selection of Indicators

Our choice of indicators for different dimensions of gender is based on observations in the literature[6] and face validity. Having been involved in designing the survey, we were able to include certain items that are unique and reflect the theoretical perspectives we discussed earlier. For example, a substantial body of literature points to the perceived importance of modesty as indicated by veiling[7] and the need for women to be accompanied in public. One of the most striking accounts comes from Gloria Goodwin Raheja, an American anthropologist who lived in Himachal Pradesh during her fieldwork: "I soon began to feel incompletely clothed if my head wasn't covered, and I often felt uncomfortable in company of men who weren't known to me" (Raheja and Gold 1994:xxi). Similarly, women's access

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3. We omitted 57 observations from this analysis because they came from district segments where very few women were interviewed and hence where district-level indicators of gender were based on small samples.

4. A prior version of this article based on the original data without date imputation reached similar conclusions.

5. We separated 383 districts into 495 district aggregates, with 117 districts contributing to both urban and rural samples and the remaining contributing to either an urban or rural sample.

6. For example, it has been argued that wage work provides women with far greater autonomy than working on family farms and in family businesses (Blumberg 1991).

7. While the exact form of purdah or ghunghat varies across region, caste, and class, the practice of purdah/ ghunghat is a meaningful construct to women respondents who clearly understood our survey question about veiling and could respond to it easily.

Table 1.   **Measuring Gender Context**

Construct	Expected Relationship With Age at Marriage	Operationalization (district averages)
Economic Context		
Employment	+	Percentage of women in wage employment (age 15 and older).
Dowry expectation	+	Percentage of families reporting that providing a large consumer durable like color television, car, scooter, or refrigerator is common in the community.
Wedding expenses	+	Log of average wedding expenses borne by bride's family in the community.
Empowerment		
Control over family resources	+	Percentage of women who have their names on home title or rental papers.
Access to resources	+	Percentage of women who have cash on hand at the time of the interview.
Participation in household decisions	+	Average score of women who have any say in household decisions about (1) what to cook, (2) whether to buy an expensive consumer durable item, (3) how many children the respondent and her husband should have, (4) when to take a sick child to the doctor, and (5) marriage arrangements for the children.
Gender Script		
Seclusion	–	Percentage of women who practice *purdah* (Muslim term) or *ghunghat* (Hindu term).
Gender segregation in household	–	Percentage of households in which men and women do not eat together.
Lack of mobility	–	Average number of places where a woman does not go alone but needs to be (prefers to be) accompanied when (1) visiting friends and relatives, (2) visiting bazaar or grocery store, and (3) visiting a health clinic. When women say they never go to places like the bazaar, they are coded as needing to be accompanied.

to and control over resources and household decisions is identified as an important marker of women's empowerment (Kishor 2005; Narayan 2006) .

However, we also recognize that the research on measuring different dimensions of gender is in its infancy, with relatively little consensus on which measures should or should not be used to operationalize different concepts (Agarwala and Lynch 2006; Basu and Koolwal 2005). Consequently, we strike a balance by using face validity to select a number of different concepts to capture certain constructs and exploring their correlation with each other, but we do not combine them to form a scale. Scale construction imposes certain assumptions about data and functional forms underlying the data reduction strategies (Bollen 1989) that may not be appropriate in the present context. The results from the principal component analysis (available from the authors on request) suggest that our choice of indicators based on prior literature seems fairly reasonable: each of these variables has a higher factor loading on scales when other variables that reflect the same construct have a lower loading on other scales.

Statistical Model

In order to test the relationship between different dimensions of gender at a community level and age at marriage, we estimate a two-level hierarchical model using the statistical program HLM; there are 27,365 women at Level 1, and 495 rural and urban district populations at Level 2. The sample was selected in a stratified design in which states and districts form the primary axis of stratification; however, the analysis is based on an unweighted sample, since the stratification design is incorporated into our analytical design because of our use of a hierarchical linear model.

We estimate the following model in which the first equation models age at marriage and the second equation models district-level intercepts:

$$Y_{ij} = \prod_{0j} + \prod_{1j} \times X_{1ij} \dots \prod_{nj} \times X_{nij} + \varepsilon_{ij}$$

$$\prod_{0j} = \beta_0 + \beta_1 \times Y_{1j} \dots \beta_{mj} \times Y_{mj} \times \phi_j,$$

where Y_{ij} represents age at marriage for woman i in district j; $\prod_{0j}$ is the intercept for district j; $X_{1ij} - X_{nij}$ represents the 1 to n characteristics of woman i in district j that influence her age at marriage; $\prod_{1j} - \prod_{nj}$ represents the corresponding Level 1 coefficients that indicate the effect of characteristics $X_1 - X_n$ on age at marriage; ε_{ij} is the Level 1 random effect; β_0 is the intercept in the Level 2 equation; $Y_{ij} - Y_{mj}$ represents the 1 to m district-level gender indicators; $\beta_{1j} \dots \beta_{mj}$ are the corresponding Level 2 coefficients that indicate the effect of gender indicators $Y_1 - Y_m$ on age at marriage; and ϕ_j is the district-level random effect.

RESULTS

Description of Marriage Patterns in India

The study of marriage timing in India offers at once a phenomenon that is extremely simple and universal in some dimensions and dazzling in its complexity in others. Virtually all Indian men and women get married (Das and Dey 1998), and while child marriages have been declining, mean age at marriage for women is still below 20. Census data from 2001 show that less than 2% of men and 1% of women remain unmarried. Moreover, 95% of women are married by age 25, whereas the same percentage of men were married by age 32. Even in comparison with other developing countries, India has one of the lowest ages at marriage. With a decline in child marriage, age at marriage is likely to have become more compressed. Indeed, most women marry between the ages of 14 and 25, with a particularly tight clustering between ages 17 and 19, showing far less dispersion than observed in other societies.

At the same time, the phenomenon of marriage timing offers an interesting peek into the functioning of a society buffeted by forces of both economic and cultural change. Although it is widely accepted in the literature that arranged marriages are widespread, this article is the first to provide empirical documentation of its pervasiveness. Marriage decisions remain within the purview of the family, and less than 5% of the IHDS respondents had a primary role in choosing their husbands. However, nearly 62% of the respondents felt that they were consulted in this decision. It is interesting to relate this to the length of the acquaintance between the spouses; about 66% of the women met their husbands on or around the day of the wedding, and 78% knew their husbands for one month or less when they got married. Even among women who felt that they had a choice in partner selection, about 55% met their husbands on or around the day of the wedding (Banerji, Martin, and Desai 2008). We present these figures to suggest the complexity of the arranged marriage system in India. While marriage remains one of the most important decisions faced by the extended family, brides and grooms are frequently consulted in

Table 2. Distribution of Age at Marriage and Gender Indicators Across Indian States

State	Mean Age at Marriage	Proportion Getting Married Before Age 16	Economic Factors			Gender Empowerment				Gender Enactment	
			Proportion of Women in Wage Employment	Proportion of Families With High Prevalence of Dowry Goods	Mean Wedding Expenditure	Proportion With Their Name on Home Title/Rental Papers	Proportion With Any Cash in Hand	Mean Score on Gender Empowerment Index	Mean Score on Immobility Index	Proportion Practicing Purdah	Proportion of Homes Where Men and Women Eat Separately
All India	17.39	0.37	0.19	0.24	95,956	0.17	0.85	4.19	0.90	0.53	0.49
Jammu and Kashmir	18.93	0.21	0.04	0.37	212,743	0.11	0.72	3.57	0.69	0.77	0.30
Himachal Pradesh	18.57	0.20	0.05	0.74	117,952	0.21	0.92	4.12	0.51	0.45	0.26
Uttarakhand	17.58	0.29	0.10	0.53	79,696	0.37	0.92	4.71	0.70	0.42	0.44
Punjab	19.75	0.10	0.04	0.61	164,166	0.06	0.88	4.57	0.76	0.33	0.38
Haryana	17.43	0.30	0.07	0.67	162,802	0.10	0.96	4.77	0.65	0.80	0.61
Delhi	19.23	0.15	0.08	0.87	194,475	0.26	0.97	4.86	0.44	0.43	0.39
Uttar Pradesh	16.11	0.52	0.08	0.48	101,656	0.17	0.90	4.53	1.43	0.85	0.81
Bihar	15.17	0.67	0.13	0.21	81,047	0.17	0.90	4.17	1.73	0.87	0.95
Jharkhand	17.42	0.34	0.13	0.27	89,408	0.11	0.91	3.82	1.20	0.57	0.73
Rajasthan	15.86	0.54	0.11	0.36	118,807	0.09	0.82	3.55	1.23	0.93	0.74
Chhattisgarh	15.98	0.53	0.43	0.10	49,065	0.04	0.83	3.33	1.13	0.55	0.52
Madhya Pradesh	15.99	0.54	0.32	0.32	58,924	0.17	0.76	3.90	1.28	0.92	0.55
Northeast	20.49	0.15	0.12	0.36	69,335	0.21	0.78	4.54	0.30	0.27	0.26
Assam	19.46	0.12	0.04	0.05	36,310	0.06	0.69	3.84	0.87	0.67	0.62
West Bengal	17.51	0.41	0.13	0.06	76,417	0.10	0.64	4.43	0.85	0.67	0.34
Orissa	17.89	0.28	0.17	0.29	97,117	0.04	0.80	3.87	0.81	0.67	0.89
Gujarat	18.17	0.20	0.22	0.07	95,796	0.52	0.93	4.72	0.52	0.74	0.14
Maharashtra, Goa	18.05	0.29	0.24	0.10	77,725	0.12	0.90	4.14	0.49	0.36	0.22
Andhra Pradesh	15.95	0.56	0.40	0.20	72,505	0.15	0.97	3.61	0.65	0.12	0.55
Karnataka	17.69	0.33	0.28	0.05	107,614	0.31	0.83	4.30	0.65	0.12	0.31
Kerala	20.87	0.07	0.10	0.05	188,657	0.21	0.44	4.10	0.47	0.14	0.17
Tamil Nadu	18.92	0.18	0.26	0.08	102,349	0.15	0.94	4.54	0.53	0.08	0.20

some way, although they rarely have an opportunity to become familiar with their potential partners through a longer acquaintance.

In addition, there is substantial diversity in age at marriage across different regions of India. Table 2 indicates mean age at marriage in our sample of ever-married women aged 25–49 across different Indian states. These differences are not always commensurate with the economic status of these states, nor do they neatly fit into the north-south divide observed for other demographic phenomena in India. The northern state of Punjab has higher age at marriage than the southern state of Andhra Pradesh; and one communist state (Kerala) has a mean age at marriage of 21 while the other communist state (West Bengal) has a mean age of 18.[8] This variation in age at marriage provides us with an opportunity to theorize about factors that lead to early marriage in some parts of India compared with other parts.

Gender and Marriage Timing

Results from hierarchical linear models estimated with HLM are presented in Table 3. The baseline model (not reported here) contains no covariates and simply allows us to partition the variance in age at marriage between districts and individuals in a district. Results show that about 70% of the variance is between individuals and 30% is between districts.

Model 1 adds individual-level factors as well as state-level dummy variables to the analysis in order to provide a basic description of differences in age at marriage by social and economic background variables. Results suggest large differences in age at marriage by education, with women with higher secondary and college education marrying 4.9 years later than less-educated women. While the causal direction of this relationship is far from clear (obtaining a higher education could delay marriage, or delayed marriage may provide a greater opportunity to complete one's education), this is a large difference. Other important factors at the individual level are being Dalit, Adivasi, or Muslim. Women's age—a marker of cohort—is not associated with age at marriage, corroborating results from other studies that suggest that marriage regimes are slow to change (Fussell and Palloni 2004). Age at menarche is strongly associated with delayed marriage, suggesting that many parents wait until daughters have attained puberty before arranging marriage.

In Model 2, we add economic indicators at the district level: proportion of women in wage employment, proportion of families noting the prevalence of high dowry (e.g. in which one of the large consumer durables—car, scooter, refrigerator, or TV—is usually given at the wedding) in their communities, and log of the average wedding expenditure for a girl. Our theoretical expectations suggest that higher prevalence of wage labor, higher dowry, and higher wedding expenditures will be associated with delayed marriage. The results do not support this expectation. The coefficients for dowry and wedding expenditures are neither large nor statistically significant. The relationship between wage labor and age at marriage is significant but in the opposite direction—that is, higher prevalence of wage labor seems to lead to *earlier* rather than later marriage. This suggests a need to rethink what wage employment means in a society like India, a theme to which we return in our discussion section.

In Model 3, instead of economic factors, we include markers of gender empowerment discussed earlier: women's access to cash, women's participation in various household decisions, and women's names on home rental papers or titles. Access to cash and names on home titles are not associated with age at marriage, although women's participation in household decision making is associated with delayed age at marriage. This suggests that when women have greater power within the household, age at marriage is somewhat higher,

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8. These variations in marriage timing transcend national boundaries. Marriage age in Pakistani Punjab is similar to that in Indian Punjab, while marriage age in Bangladesh is closer to that in West Bengal.

Table 3. **Coefficients From Hierarchical Linear Models**

Variable	Hypothesized Effect	Model 1	Model 2	Model 3	Model 4	Model 5
Level 1						
Intercept		17.74**	17.74**	17.73**	17.72**	17.71**
Age		0.00	0.00	0.00	0.00	0.00
Age at menarche		0.37**	0.37**	0.37**	0.37**	0.37**
Urban		0.43**	0.17	0.44**	0.18	–0.07
Caste/religion (ref. = upper caste Hindu)						
Other backward classes		–0.26**	–0.25**	–0.26**	–0.25**	–0.25**
Dalit		–0.49**	–0.48**	–0.49**	–0.48**	–0.48**
Adivasi		–0.21	–0.18	–0.20	–0.23*	–0.18
Muslim		–0.34**	–0.34**	–0.33**	–0.33**	–0.33**
Other religions		0.50**	0.50**	0.50**	0.49**	0.49**
Consumption expenditure per capita (adjusted)		–0.08	–0.09*	–0.08	–0.08	–0.08*
Education (ref. = none)						
Education 1–5, standard		0.43**	0.43**	0.43**	0.43**	0.42**
Education 6–9, standard		1.15**	1.15**	1.15**	1.15**	1.14**
Education 10–12, standard		2.43**	2.43**	2.43**	2.42**	2.42**
Some college/degree		4.91**	4.91**	4.91**	4.89**	4.89**
Level 2						
Economic indicators						
Wage employment	+		–1.77**			–2.10**
Consumer durables in dowry	+		–0.27			–0.23
Log of wedding expenditure	+		0.32			0.33*
Empowerment indicators						
Cash on hand	+			–0.70		–1.16**
Name on home title/rental papers	+			0.10		–0.06
Decision making index	+			0.26**		0.17**
Gender performance indicators						
Practice *purdah/ghunghat*	–				–0.96**	–0.95**
Men and women eat separately	–				–0.77**	–0.81**
Physical immobility index	–				–0.24*	–0.31**
Level 2 Variance		1.08	1.03	1.03	0.99	0.89
Level 1 Variance		7.72	7.72	7.72	7.72	7.72
% Reduction in Level 2 Variance (over Model 1)			0.04	0.04	0.08	0.17

Notes: Models also include dummy variables for state. Results for states in are shown in Table 4.

*$*p \leq .05$; $**p \leq .01$

although this coefficient is not very large.[9] Note that although we have grouped the three markers of economic and familial empowerment together and the principal component analysis suggests that they are highly correlated, these are substantively distinct indicators. A woman's name on a housing title reflects both lending practices in the area as well familial economic strategy. For example, in areas dominated by petty entrepreneurs, such as the western state of Gujarat, the home is often placed in a woman's name to prevent foreclosure in the event of business reversals and bankruptcy. Hence, it may not reflect true empowerment in interpersonal situations. In contrast, participation in decision making may be more reflective of women's roles in day-to-day household decisions and may be more relevant to marriage decisions. Nonetheless, although the coefficient for this variable is statistically significant, the inclusion of empowerment-related markers reduces the unexplained variance at Level 2 by only about 4%.

In Model 4 we focus on indicators of gender performance: the proportion of women practicing purdah or ghunghat, the proportion of families in which men and women do not eat together, and the average score on an immobility index indicating the number of places women cannot visit unless accompanied. Here the results are in the hypothesized direction, and all three variables are statistically significant. A lower score on gender performance is associated with a higher age at marriage. The effect of the addition of these factors on the coefficient for urban residence is also noteworthy. The decline in the size of the coefficient for urban residence between Models 1 and 4 in Table 4 suggests that a large part of the urban-rural difference in age at marriage is due to a lower emphasis on gender performance in urban areas.

Model 5 includes all three dimensions of gender in order to examine potentially confounding effects. The indicators of gender scripts remain statistically significant, and the coefficients increase marginally. For other dimensions, two variables that were close to statistical significance become significant: average wedding expenditure and having cash at hand. As hypothesized, when average wedding expenditure is large, age at marriage is slightly older. However, empowerment as reflected in having cash at hand seems to be associated with earlier, rather than later, age at marriage.

Analysis of explained variance allows us to examine the relative importance of these three sets of factors. Economic factors and empowerment indicators reduce unexplained variance at Level 2 by about 4% each, while the inclusion of gender script variables reduces the unexplained variance by 8%. All three factors together reduce the unexplained variance by 17%. Note that all models presented in Table 4 include controls for state of residence; hence, the reduction in Level 2 variance understates the substantive impact of the gender variables. To better understand the role of these factors, it is important to look at the changes in state coefficient after the addition of each set of gender variables.

Regional differences in income, education, and culture dominate the Indian panorama; age at marriage is no exception. Studies documenting these interstate differences often note that these differences are so robust that the addition of individual-level socioeconomic controls do little to dampen the differences between states (World Bank 2004). Thus, a comparison of state coefficients across different models in Table 4 presents an interesting test. We find a decline of about two-thirds in the size of the state coefficients between Models 1 and 4. This suggests that a substantial portion of interstate differences in age at marriage is associated with the differences in gender performance. Some of the specific changes are particularly interesting. Punjab has one of the highest ages at marriage in the country at almost 20 years old, and about 10% of women in Punjab get married before reaching age 16 (see Table 2). In contrast, the neighboring state of Haryana has an average age of marriage that is 2 years lower, and about 30% of women get married by age 16.

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9. An alternative formulation of this index that counted the number of items on which women were sole or primary decision makers (instead of one of the decision makers, as reported here) led to a very similar conclusion.

Table 4.   State-Level Coefficients From Hierarchical Linear Models (ref. = Uttar Pradesh)

State	Model 1	Model 2	Model 3	Model 4	Model 5
Jammu and Kashmir	1.92**	1.69**	2.11**	1.41**	1.17**
Himachal	1.22**	1.22**	1.30**	0.17	0.17
Uttarkhand	0.71**	0.84**	0.67**	–0.17	–0.08
Punjab	2.20**	2.08**	2.17**	1.24**	1.01**
Haryana	0.51*	0.40	0.48	0.14	–0.02
Delhi	1.65**	1.68**	1.58**	1.12**	1.03**
Bihar	–0.86**	–0.81**	–0.76**	–0.79**	–0.61*
Jharkhand	0.49	0.56	0.66	0.18	0.39
Rajasthan	–0.41	–0.37	–0.19	–0.40	–0.27
Chhatisghar	–0.28	0.52	–0.08	–0.84**	0.14
Madhya Pradesh	–0.31	0.29	–0.22	–0.50*	0.14
Northeast	3.00**	3.22**	2.94**	1.85**	1.96**
Assam	3.32**	3.49**	3.32**	2.96**	2.99**
West Bengal	1.13**	1.23**	0.95**	0.46	0.27
Orissa	1.56**	1.76**	1.66**	1.27**	1.47**
Gujarat	1.31**	1.45**	1.24**	0.52	0.67*
Maharashtra and Goa	1.00**	1.31**	1.08**	0.03	0.37
Andhra Pradesh	–0.18	0.34	0.08	–1.19**	–0.40
Karnataka	1.08**	1.31**	1.06**	–0.11	0.08
Kerala	2.70**	2.45**	2.50**	1.44**	0.70
Tamil Nadu	2.21**	2.47**	2.22**	0.91**	1.20**

Note: Changes in coefficients for state-level effects from HLM models are shown in Table 3.

*$p \leq .05$; **$p \leq .01$

These states have similar educational and economic profiles, which is not surprising given that Haryana was carved out of Punjab. However, they differ in cultural traditions. Punjab contains a large number of Sikhs, and even Hindus are influenced by Sikh culture. Haryana shares cultural traditions with the central plains, so the two states differ substantially in the way gender is articulated. Purdah is the most visible difference: only 33% of the women in Punjab practice purdah, while 80% of the Haryana women do. Once we control for markers of gender performance, age at marriage difference between Haryana and Punjab drops from 1.7 to 1.1 years. The state coefficients in Table 4 are largely unchanged between Models 1, 2, and 3, but the addition of variables reflecting gender scripts makes a tremendous difference. For example, compared with Uttar Pradesh, the omitted state, the three southern states—Karnataka, Kerala, and Tamil Nadu—have an age at first marriage that is about 2 years higher. This difference remains largely unaffected by the addition of economic or empowerment variables, but the addition of markers of gender performance reduces the difference to about 0.75 years.[10]

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10. This article focuses on contextual effects of gender. Some of these relationships may occur at an individual level rather than at a contextual level—that is, women may be likely to marry early because they have been raised in a family that values gender segregation, rather than a community that expects gender segregation. Since we have little information on premarital household of the IHDS respondents, we cannot sort out these effects. However, multilevel regressions that control for current individual circumstances—such as wage employment, purdah practice, whether males and females eat together, and women's own role in household decision making—continue to show statistically significant contextual effects, although these effects are slightly attenuated. This is consistent with findings in other studies that contain both individual and contextual gender variables (Desai and Johnson 2005).

We have examined the importance of three aspects of gender relations—economic factors, economic and familial empowerment, and gender performance—in India with respect to differences in age at marriage. The results show that, contrary to expectations, women's wage labor reduces rather than increases age at marriage. At least one marker of familial empowerment is related to age at marriage in the expected direction, but this effect is relatively small. However, the three indicators of gender performance are consistently related to age at marriage in the direction we hypothesized. Areas where male-female segregation is less intense and where gender performance receives less emphasis are also areas where marriage tends to be delayed.

This does not mean that gender performance *causes* early marriage; rather marriage is part and parcel of the gender scripts propagated by the households. In this context, the negative coefficient on wage employment provides an interesting challenge. Economic arguments suggest that when daughters have a higher likelihood of engaging in wage labor, parents may be more motivated to delay marriage and women themselves may have other options available to them besides marriage. However, greater participation in the labor market also brings with it risks that challenge gender scripts. Girls may be more likely to come in contact with men outside their families, resulting in a potential love affair. Since families may perceive greater threat to their control over their daughters' sexuality with increased labor force participation, many may prefer to avoid any potential pitfalls by arranging early marriages. Our explanation here is purely speculative, and this phenomenon deserves further research.

It is particularly noteworthy that a substantial proportion of the difference in ages at marriage between different parts of India is associated with our markers of gender performance. Once these are included in the model, the coefficients for state of residence decline in size. While the state coefficients continue to reflect differences across India in education, economic status, and a host of other markers of unobserved well-being, leaving the residual effects large and often statistically significant, the decline in the size of these coefficients between Models 1 and 4 also suggests that a substantial proportion of interstate differences in age at marriage is attributable to regional differences in symbolic aspects of gender.

DISCUSSION

Although marriage is recognized as a core phenomenon of demographic interest, research on marriage in developing countries has often been limited in scope (Mensch et al. 2005). We argue that part of the reason for the limited research on marriage timing in many non-Western societies is that modes of explanation are individual centric. Most theories are developed to explain why individuals choose to marry late or stay single. However, in situations where families play an important role, researchers are often forced to acknowledge the limitations of modernization perspectives that focus on individual decisions, but they are left without alternative explanations (Hirschman 1985; Malhotra and Tsui 1996). A focus on corporate families provides an alternative framework.

A focus on families also opens up new avenues for understanding how families are implicated in the creation and recreation of hierarchical gender relations of which marriage is an intricate part. Past research on gender and marriage has tended to focus either on gender division of labor or on institutional structures surrounding education and employment. These explanations are consistent with a model in which individuals make decisions regarding their own marriage. Once we begin to focus on the role of families in making marriage decisions for their children, these explanations are only of limited utility. In trying to find an alternative explanation, we build on early insights from symbolic interactionist literature (Goffman 1976; West and Zimmerman 1987) to argue that early marriage is part of a script in which gender is performed by women through a symbolic display of segregation, modesty, and chastity, and early marriage is part and parcel of culture in action. Arguably one of the most important contributions of our work lies in identifying potential synergies between

the new sociology of culture and demographic research. Swidler (1986:273) articulated this most clearly when she argued that "Culture influences action not by providing the ultimate values toward which action is oriented, but by shaping a repertoire or 'tool kit' of habits, skills, and styles from which people construct 'strategies of action.'"

Our theoretical arguments and empirical results suggest that gender scripts that emphasize segregation between men and women and value "decorous" and "modest" behavior on the part of women are also associated with early marriage in India. However, this argument leaves two important theoretical questions unanswered. First, how and why did the differences in gender scripts across different parts of India arise? Second, are these scripts immutable, or does the onslaught of globalization dilute their importance? Given the cross-sectional nature of our analysis, we cannot provide empirical evidence to address these questions; however, our reading of the literature provides tantalizing clues that deserve future research.

Because the "doing gender" approach in U.S. literature has relied mainly on theoretical insights from symbolic interactionism, it has tended to ignore the power dynamics and role of social structure in shaping day-to-day interactions (Collins et al. 1995). However, this issue has been addressed explicitly in Indian literature, which has argued that gender displays are woven into a hierarchical society such that these displays not only reflect an ideal of Indian womanhood, they reflect an ideal of *upper class* and *upper caste* womanhood (Dube 2001; Srinivas 1977). The repertoire with which Indian families address marriage decisions and behaviors is rooted in a historical legacy in which upper class/caste Indian women were represented as "decorous, pious, and modest," and a history of social stratification in which castes competed with each other in attaining higher status through control over women's sexuality (Chatterjee 1989; Dube 1996; Srinivas 1977). It is interesting that gender scripts are far less stringent in Tamil Nadu, Kerala, and Maharashtra, states characterized by strong anti-caste movements (Omvedt 2006), and Punjab, dominated by the Sikh religion that emerged in reaction to the rituals and inequalities of Hinduism. This suggests that future research on gender scripts in India would be well served to link these scripts to historical forces shaping social stratification based on caste, class, and religion.

The second question deserving of future research centers on the immutability of gender scripts. It appears that Indian families are increasingly torn in two directions: status attainment through gender performance, or status attainment through the performance of modernity. Demands of a global culture and valorization of modernity motivate parents to educate their daughters, regardless of employment considerations; and as our results suggest, enrollment in secondary schools and college is associated with substantial delays in marriage. The delaying effect of modernity is further strengthened by the changing political culture. Although the political culture in colonial India constructed marriage legislation as the illegitimate demands of a colonial state, the political culture in an independent India is far more open to civil reforms. Early marriage is increasingly being constructed as part of a traditional ideology that a modern society must transcend. Should the demands of modernity triumph over gender performance, we may well see rising age at marriage even as families retain the power of conducting marriage negotiations.

Some caution is warranted in assuming that status attainment through "doing modernity" (Schein 1999) is bound to triumph in a globalizing India and other parts of South Asia. A study of global culture in Nepal noted pointedly that the global "youth" culture in Kathmandu is not only class specific but also gender specific, with males participating in a public culture while much of women's consumption of global culture—such as movies or television shows—takes place in private domestic settings (Liechty 2003). Derne (2003:12), in an article titled "Arnold Schwarzenegger, Ally McBeal and Arranged Marriages: Globalization on the Ground in India," noted that "After a decade of frenzied globalization, the rich of India welcome consumer goods and experiment with new arrangements between

men and women. But because the economic opportunities of middle-class Indian men have not expanded, most of them merely welcome Western media images that reinforce their power and masculine self-image." Although a variety of American television shows and films continue to inundate modern India, Indian middle-class men continue to privilege images of Arnold Schwarzenegger and Jackie Chan in order to bolster their masculine self-image while seeking family-oriented and "modest" wives who will conform to the demands of the Indian extended family. The continuing importance of arranged marriage (Kaur 2004) and dowry (Srinivasan and Lee 2004) in modern India bolsters the argument that globalization may have a long way to go before gender scripts woven into the Indian stratification system begin to unravel.

Appendix Table A1.   Means for Variables Included in the Analysis

Variable	Mean
Individual-Level Variables (N = 27,365)	
Age at marriage	17.39
Log of adjusted per capita expenditure	9.80
Age	35.28
Age at puberty	13.73
Urban residence	0.30
Caste/religion	
Upper caste Hindu	0.22
Other backward castes	0.36
Dalit	0.22
Adivasi	0.07
Muslim	0.11
Other religions	0.03
Education	
No education (ref.)	0.49
Education 1–5 years	0.16
Education 6–9 years	0.17
Education 10–12 years	0.12
Any college	0.05
District-Level Variables (N = 495 urban/rural sections of district)	
Wage employment	0.17
High prevalence of dowry	0.29
Log of wedding expenditure	11.41
Mean on gender empowerment index	4.18
Any access to cash	0.85
Name on home title/rental papers	0.17
Prevalence of *purdah*	0.52
Prevalence of separate eating pattern	0.48
Mean of physical immobility index	0.84

REFERENCES

Abraham, L. 2001. "Redrawing the Lakshman Rekha: Gender Differences and Cultural Constructions in Youth Sexuality in Urban India." *South Asia: Journal of South Asian Studies* 24:133–56.

Agarwala, R. and S.M. Lynch. 2006. "Refining the Measurement of Women's Autonomy: An International Application of a Multi-dimensional Construct." *Social Forces* 84:2077–99.

Banerji, M., S.P. Martin, and S. Desai. 2008. "Is Education Associated With a Transition Towards Autonomy in Partner Choice? A Case Study of India." Presented at the *IUSSP Seminar on Changing Transitions to Marriage: Gender Implications for the Next Generation*, New Delhi.

Basu, A.M. 1993. "Cultural Influences on the Timing of First Births in India: Large Differences That Add up to Little Difference." *Population Studies* 47:85–95.

Basu, A.M. and G.B. Koolwal. 2005. "Two Concepts of Female Empowerment: Some Leads From DHS Data on Women's Status and Reproductive Health." Pp. 15–54 in *A Focus on Gender: Collected Papers on Gender Using DHS Data,* edited by S. Kishor. Calverton, MD: ORC Macro.

Becker, G.S. 1993. *A Treatise on the Family*. Cambridge, MA: Harvard University Press.

Bhasin, V. 2007. "Status of Tribal Women in India." *Studies on Home and Community Science* 1:1–16.

Bloch, F., V. Rao, and S. Desai. 2004. "Wedding Celebrations as Conspicuous Consumption: Signaling Social Status in Rural India." *Journal of Human Resources* 39:675–95.

Bloom, S.S., D. Wypij, and M. Das Gupta. 2001. "Dimensions of Women's Autonomy and the Influence on Maternal Health Care Utilization in a North Indian City." *Demography* 38:67–78.

Blumberg, R.L. 1991. *Gender, Family and Economy: The Triple Overlap*. Newbury Park: Sage Publications.

Bollen, K.A. 1989. *Structural Equations With Latent Variables*. New York: Wiley.

Caldwell, J.C., P. Caldwell, B.K. Caldwell, and I. Pieris. 1998. "The Construction of Adolescence in a Changing World: Implications for Sexuality, Reproduction, and Marriage." *Studies in Family Planning* 29:137–53.

Caldwell, J.C., P.H. Reddy, and P. Caldwell. 1983. "The Causes of Marriage Change in South India." *Population Studies* 37:343–61.

Chatterjee, P. 1989. "Colonialism, Nationalism, and Colonialized Women: The Contest in India." *American Ethnologist* 16:622–33.

Collins, P.H., L.A. Maldonado, D.Y. Takagi, B. Thorne, L. Weber, and H. Winant. 1995. "Symposium on West and Fenstermaker's 'Doing Difference.'" *Gender and Society* 9:491–506.

Collins, R., J.S. Chafetz, R.L. Blumberg, S. Coltrane, and J.H. Turner. 1993. "Toward an Integrated Theory of Gender Stratification." *Sociological Perspectives* 36:185–216.

Croft, T. 2008. "DHS Data Editing and Imputation." Paper. Macro International, Calverton, MD.

Das, N.P. and D. Dey. 1998. "Female Age at Marriage in India: Trends and Determinants." *Demography India* 27:91–115.

Derne, S. 1994. "Hindu Men Talk About Controlling Women: Cultural Ideas as a Tool of the Powerful." *Sociological Perspectives* 37:203–27.

———. 2003. "Arnold Schwarzenegger, Ally McBeal, and Arranged Marriages: Globalization on the Ground in India." *Contexts* 2:12–18.

Desai, S. and M.B. Das. 2004. "Is Employment Driving India's Growth Surge?" *Economic and Political Weekly* 39:345–51.

Desai, S., A. Dubey, B.L. Joshi, M. Sen, A. Shariff, and R. Vanneman. 2009. "India Human Development Survey: Design and Data Quality." IHDS Technical Paper No. 1. University of Maryland, College Park, MD.

Desai, S. and K. Johnson. 2005. "Women's Decisionmaking and Child Health: Familial and Social Hierarchies." Pp. 55–68 in *A Focus on Gender: Collected Papers on Gender Using DHS Data,* edited by S. Kishor. Calverton, MD: ORC Macro.

Dube, L. 1996. "Caste and Women." Pp. 1–27 in *Caste: Its Twentieth Century Avatar,* edited by M.N. Srinivas. New Delhi: Penguin Publishers.

———. 2001. *Anthropological Explorations in Gender: Intersecting Fields*. New Delhi: Sage Publications.

Dwyer, D. and J. Bruce. 1988. *A Home Divided: Women and Income in the Third World*. Stanford, CA: Stanford University Press.

Dyson, T. and M. Moore. 1983. "On Kinship Structure, Female Autonomy, and Demographic Behavior in India." *Population and Development Review* 9:35–60.

Ferree, M.M. 1990. "Beyond Separate Spheres: Feminism and Family Research." *Journal of Marriage and the Family* 52:866–84.

Folbre, N. 2001. *The Invisible Heart: Economics and Family Values*. New York: New Press.

Fricke, T.E., S.H. Syed, and P.C. Smith. 1986. "Rural Punjabi Social Organization and Marriage Timing Strategies in Pakistan." *Demography* 23:489–508.

Fussell, E. and A. Palloni. 2004. "Persistent Marriage Regimes in Changing Times." *Journal of Marriage and Family* 66:1201–13.

Germain, A. 1997. "Addressing the Demographic Imperative Through Health, Empowerment, and Rights: ICPD Implementation in Bangladesh." *Health Transition Review* 7:33–36.

Goffman, E. 1976. "Gender Display." *Studies in Anthropology of Visual Communications* 3:69–77.

Greenhalgh, S. 1985. "Sexual Stratification: The Other Side of 'Growth With Equity' in East Asia." *Population and Development Review* 11:265–314.

Heimsath, C.H. 1962. "The Origin and Enactment of the Indian Age of Consent Bill, 189." *Journal of Asian Studies* 21:491–504.

Hirschman, C. 1985. "Premarital Socioeconomic Roles and the Timing of Family Formation: A Comparative Study of Five Asian Societies." *Demography* 22:35–59.

International Institute for Population Sciences (IIPS), and Macro International. 2007. *National Family Health Survey (NFHS-3) 2005–06, India: Volume 1*. Mumbai: IIPS.

Jejeebhoy, J.S. and A.Z. Sathar. 2001. "Women's Autonomy in India and Pakistan: The Influence of Religion and Region." *Population and Development Review* 27:687–712.

Kabeer, N. 1999. "The Conditions and Consequences of Choice: Reflections on Measurement of Women's Empowerment." UNRISD Discussion Paper No. 108. United Nations Research Institute for Social Development, Geneva.

Kannabiran, V. and K. Lalitha. 1989. "That Magic Time: Women in the Telangana People's Struggle." Pp. 180–203 in *Recasting Women: Essays in Indian Colonial History,* edited by K. Sangari and S. Vaid. New Brunswick, NJ: Rutgers University Press.

Kapadia, K. 1995. *Siva and Her Sisters: Gender, Class and Caste in Rural South India*. Boulder: Westview Press.

Kaufman, J. 2004. "Endogenous Explanation in the Sociology of Culture." *Annual Review of Sociology* 30:335–57.

Kaur, R. 2004. "Across-Region Marriages: Poverty, Female Migration and the Sex Ratio." *Economic and Political Weekly* 39:2595–603.

Kishor, S. 1993. "'May God Give Sons to All': Gender and Child Mortality in India." *American Sociological Review* 58:247–65.

———. 2000. "Empowerment of Women in Egypt and Links to the Survival and Health of Their Children." Pp. 119–56 in *Women's Empowerment and Demographic Processes: Moving Beyond Cairo,* edited by H. Presser and G. Sen. Oxford: Oxford University Press.

———. 2005. "Gender in the Demographic and Health Surveys." Pp. 1–7 in *A Focus on Gender: Collected Papers on Gender Using DHS Data,* edited by S. Kishor. Calverton, MD: ORC Macro.

Leonard, K. 1976. "Women and Social Change in Modern India." *Feminist Studies* 3:117–30.

Lesthaeghe, R. and J. Surkyn. 1988. "Cultural Dynamics and Economic Theories of Fertility Change." *Population and Development Review* 14:1–45.

Liddle, J. and R. Joshi. 1989. *Daughters of Independence: Gender, Caste and Class in India*. New Brunswick, NJ: Rutgers University Press.

Liechty, M. 2003. *Suitably Modern: Making Middle-Class Culture in a New Consumer Society*. Princeton, NJ: Princeton University Press.

Lindenbaum, S. 1981. "Implications for Women of Changing Marriage Transactions in Bangladesh." *Studies in Family Planning* 12:394–401.

Lloyd, C., ed. 2005. *Growing Up Global: The Changing Transitions to Adulthood in Developing Countries*. Washington, DC: National Research Council, Panel on Transitions to Adulthood in Developing Countries.

Malhotra, A., S.R. Schuler, and C. Boender. 2002. "Measuring Women's Empowerment as a Variable in International Development." Background paper prepared for the World Bank workshop "Poverty and Gender: New Perspectives." World Bank, Washington, DC.

Malhotra, A. and A.O. Tsui. 1996. "Marriage Timing in Sri Lanka: The Role of Modern Norms and Ideas." *Journal of Marriage and the Family* 58:476–90.

Malhotra, A., R. Vanneman, and S. Kishor. 1995. "Fertility, Dimensions of Patriarchy, and Development in India." *Population and Development Review* 21:281–305.

Mason, K.O. 1986. "The Status of Women: Conceptual and Methodological Issues in Demographic Studies." *Sociological Forum* 1:284–300.

———. 1995. *Gender and Demographic Change: What Do We Know?* Liege: International Union for Scientific Study of Population.

Mendelbaum, D. 1988. *Women's Seclusion and Men's Honor: Sex Roles in India, Bangladesh and Pakistan*. Tucson, AZ: University of Arizona Press.

Mensch, B., S. Singh, and J. Casterline. 2005. "Trends in the Timing of First Marriage Among Men and Women in the Developing World." Pp. 118–71 in *The Changing Transitions to Adulthood in Developing Countries: Selected Studies,* edited by C.B. Lloyd, J. Behrman, N.P. Stromquist, and B. Cohen. Washington, DC: National Academies Press.

Morgan, S.P., S. Stash, H.L. Smith, and K.O. Mason. 2002. "Muslim and Non-Muslim Differences in Female Autonomy and Fertility: Evidence From Four Asian Countries." *Population and Development Review* 28:515–37.

Mukhopadhyay, C.C. and P.J. Higgins. 1988. "Anthropological Studies of Women's Status Revisited: 1977–1987." *Annual Review of Anthropology* 17:461–95.

Murthi, M., A.-C. Guio, and J. Dreze. 1995. "Mortality, Fertility, and Gender Bias in India: A District-Level Analysis." *Population and Development Review* 21:745–82.

Narayan, D., ed. 2006. *Measuring Empowerment: Cross-Disciplinary Perspectives*. New Delhi: Oxford University Press.

National Sample Survey Organisation. 2001. "Migration in India, 1999–2000." New Delhi: Ministry of Statistics and Programme Implementation, Government of India.

Niraula, B.B. and S.P. Morgan. 1996. "Marriage Formation, Post-Marital Contact With Natal Kin and Autonomy of Women: Evidence From Two Nepali Settings." *Population Studies* 50:35–50.

Omvedt, G. 2006. *Dalit Visions: The Anti-Caste Movement and the Construction of an Indian Identity*. New Delhi: Orient Longman.

Oppenheimer, V.K. 1988. "A Theory of Marriage Timing." *American Journal of Sociology* 94:563–91.

Papanek, H. 1973. "Purdah: Separate Worlds and Symbolic Shelter." *Comparative Studies in Society and History* 15:289–325.

Presser, H.B. 1997. "Demography, Feminism, and the Science-Policy Nexus." *Population and Development Review* 23:295–331.

Presser, H.B. and G. Sen. 2000. *Women's Empowerment and Demographic Processes: Moving Beyond Cairo*. New York: Oxford University Press.

Raheja, G. Goodwin, and A. Grodzins Gold. 1994. *Listen to the Heron's Words: Reimagining Gender and Kinship in North India*. Berkeley, CA: University of California Press.

Rao, A. 2003. *Gender and Caste: Issues in Contemporary Indian Feminism*. New Delhi: Kali for Women.

Retherford, R.D., N. Ogawa, and R. Matsukura. 2001. "Late Marriage and Less Marriage in Japan." *Population and Development Review* 27:65–102.

Riley, N.E. 1997. "Gender, Power and Population Change." *Population Bulletin* 52.

Santhya, K.G. and S.J. Jejeebhoy. 2007. *Young People's Sexual and Reproductive Health in India: Policies, Programmes and Realities*. New Delhi: Population Council.

Schein, L. 1999. "Performing Modernity." *Cultural Anthropology* 14:361–95.

Schlegel, A. 1993. "Dowry: Who Competes for What?" *American Anthropologist* 95:155–57.

Schultz, T.W., ed. 1974. *Economics of the Family: Marriage, Children, and Human Capital*. Chicago: University of Chicago Press.

Singh, J.P. 2005. *The Contemporary Indian Family*. Pp. 129–66 in *Handbook of World Families,* edited by B.N. Adams and J. Trost. Thousand Oaks, CA: Sage Publications.

Srinivas, M.N. 1977. "The Changing Position of Indian Women." *Man* 12:221–38.

Srinivasan, P. and G.R. Lee. 2004. "The Dowry System in Northern India: Women's Attitudes and Social Change." *Journal of Marriage and Family* 66:1108–17.

Swidler, A. 1986. "Culture in Action: Symbols and Strategies." *American Sociological Review* 51:273–86.

Thompson, L. and A.J. Walker. 1995. "The Place of Feminism in Family Studies." *Journal of Marriage and the Family* 57:847–65.

Thornton, A. and T.E. Fricke. 1987. "Social Change and the Family: Comparative Perspectives From the West, China, and South Asia." *Sociological Forum* 2:746–79.

Uberoi, P. 1993. *Family, Kinship and Marriage in India*. New Delhi: Oxford University Press.

Watkins, S.C. 1993. "If All We Knew About Women Was What We Read in *Demography*, What Would We Know?" *Demography* 30:551–77.

West, C. and D.H. Zimmerman. 1987. "Doing Gender." *Gender and Society* 1:125–51.

Wolf, D.L. 1994. *Factory Daughters: Gender, Household Dynamics, and Rural Industrialization in Java*. Berkeley, CA: University of California Press.

World Bank. 2004. "Attaining the Millennium Development Goals in India: How Likely and What Will It Take to Reduce Infant Mortality, Child Malnutrition, Gender Disparities and Hunger-Poverty to Increase School Enrollment and Completion?" Human Development Unit, World Bank, Washington, DC.