Intergenerational Religious Influences and the Timing of First Marriage

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Abstract

Throughout most of human experience the family has been one of the most important social units influencing attitudes, values, and behavior. Often the social institutions of family and religion are intertwined with parents being the primary sources of religious socialization and religions actively reinforcing the importance of marriage and reproduction. In this paper we investigate how the timing of first marriage is shaped by mothers' and father's religious beliefs, behaviors, and salience. Using data from the Chitwan Valley Family Study in Nepal, we examine the individual effects of fathers' and mothers' religious characteristics on the marriage behavior of sons and daughters separately, thereby giving us more detailed insight into specific intergenerational dynamics in the relationship between family religious life and the first marital transition. Our preliminary analyses show that fathers' religiosity has a much larger effect on children's marriage timing than mothers' religiosity. Furthermore, male children's marriage timing appears to be more influenced by parental religiosity than female children's marriage timing. These findings are likely attributable to gendered patterns of religious involvement and salience as well as the patriarchal organization of family life in this setting where father's authority is strong and daughters have less say over the timing of their own marriages than sons.

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Throughout most of human experience the family has been one of the most important social units influencing attitudes, values, and behavior. Historically, family units have primarily organized economic production and consumption, provided protection and security to individuals, and served as conduits of information to the outside world (Coleman 1990; Durkheim 1984; Ogburn & Tibbitts 1933; Thornton & Fricke 1987). Children have historically been born into a family where they have been supervised and socialized by parents, obtaining their basic attitudes, beliefs, and approaches to family life from their parents. Although the family has been and continues to be important in all societies, it has probably been especially important in Nepal and other Asian countries such as India, China, Bangladesh, and Pakistan for several reasons. First, compared to Western societies, Asian societies historically hold more collective orientations toward social life, emphasizing selfless subordination to family and extended kinship, especially senior kin (Goode 1970; Sastry & Ross 1998; Thornton et al. 1994). Second, in many Asian societies decisions about family formation have historically been considered too important to be left to the young themselves, making parents important decision makers in their children's family formation behavior (Gray 1991; Macfarlane 1976; Watkins 1996; Weiss 1996). Third, in many rural Asian settings parental inheritance is still the primary source of wealth, and young people, particularly sons, continue to reside in the parental household until well into adulthood (Cain 1981a, 1981b; Gertler & Lillard 1994), giving parents a great deal more opportunity to influence their children.

A key component of family life and intergenerational transmission of values and behaviors is often religion. Religion and family are two highly intertwined social institutions with parents often serving as a primary source of religious socialization and religions bolstering the societal level importance of family life and encouraging specific marital and reproductive values and behaviors (Thornton 1985). While research is increasingly recognizing the importance of individual level religious characteristics in shaping marriage behavior (Lehrer 2000; 2004a; 2004b), and research has established the strong influence of parent religious characteristics on the religiosity of their offspring (Myers 1998), the field is lacking research exploring how parents' religious characteristics influence the marital behavior of their offspring. In this paper we investigate the ways in which young adult marital timing is influenced by

parents' religious ideologies, practices, and salience. In addition to investigating the overall influence of the parental family on young adult family formation, we will examine the individual effects of fathers and mothers on sons and daughters separately, thereby giving us more detailed insight into specific intergenerational dynamics. The work we propose on fathers (in comparison to mothers) is particularly innovative, addressing a substantial gap in the research literature with evidence from a setting in which fathers are likely to be especially influential. Taking advantage of a rich longitudinal dataset, this investigation promises to identify key intergenerational effects of religion on marriage timing expanding our understanding of the role of parents in the lives of youth, especially the role that more cultural intergenerational factors like religion have in shaping demographic behavior.

The role of family and religious influences on family formation processes is a particularly high priority topic for new research. This is because marriage, childbearing, and contraceptive use are key dimensions of the transition to adulthood, with wide ranging implications for other dimensions of life. The nature, timing and sequencing of these choices affect subsequent life course decisions, experiences, and well-being (Freedman & Thornton 1979; Furstenberg et al. 1983, 1987; Hayes 1987; Hogan 1981; McLanahan & Sandefur 1994). The physical and mental health of young adults and their children can also be influenced by the family and household decisions made during the young adult years. Further, there has been a recent expansion of research on the influence of religion on demographic behavior (Lehrer 2004a). For many years, demographic research has conceptualized religion as a static individual-level affiliation and studied how membership in a particular religious group is related to demographic behaviors. That is changing with more attention towards the dynamics of religiosity over time, the family context of religiosity, and the multiple dimensions of religiosity in operation (Pearce forthcoming).

Given the centrality of the family and religion in most societies, it is not surprising that research has consistently shown important influences of both social forces on children in virtually every arena of social life (Axinn & Thornton 1992a, 1992b, 1993, 1996; Barber 2000, 2001a, 2001b; Blau & Duncan 1967; Halle et al. 1997; Jimerson et al. 1999; Knodel & Wongsith 1991; Kohn 1963; Luster et al. 1989; Marini 1978; McLanahan & Sandefur 1994; Rindfuss et al. 1984; Ross & Mirowsky 1984; Sastry & Ross 1998; Sewell & Hauser 1975). Although most of this research has been conducted in European or European diaspora populations where family

units are less influential than in most of Asia and Western religions predominate. Our paper broadens this lens by examining the role of parental religiosity in shaping offspring marriage timing in Nepal where parents hold much sway over marriage decisions and Hinduism and Buddhism are the major religions.

Theoretical Background

To better understand how intergenerational religious influence shapes marriage timing, we develop a theoretical framework that defines religion and religiosity, outlines how prior research has demonstrated connections between religion and marriage, discusses general models of intergenerational effects on marriage behavior (including the potentially gendered nature of these dynamics), and integrates these theories to develop hypotheses about how mothers' and fathers' religious characteristics shape the timing of their sons' and daughters' marriages through multiple pathways.

Religion and Its Influence on Marriage Timing

Geertz (1966) defines religion as "a system of symbols which acts to establish powerful, pervasive, and long-lasting moods and motivations in men by formulating conceptions of a general order of existence and clothing these conceptions with such an aura of factuality that the moods and motivations seem uniquely realistic (p. 90)." Research on how religion to persuade and motivate human behavior (as well as the reverse) has come to conceptualize religion as multidimensional and much work has been done to identify the core dimensions (Cornwall et al. 1986). Numerous frameworks have been proposed for defining the components of religion, and the overlap between them identifies a few core dimensions, namely ideology, practice, and salience. Religion is also inherently social, so although individuals do have measurable religious characteristics, they usually belong to religious groups, interact with religious others, and are influenced by the religious institutions with which they affiliate and interact (Geertz 1966). Therefore, it is important that we also consider how religion operates at the family level.

Ideology. When it comes to family formation, there are religious ideologies, both specific and general, that shape what are possible and preferred family formation strategies (McQuillan 1999). This parallels the argument of Bamberg et al. (1999), in the Framing Model, that general beliefs and values influence the frame available to process action. Ideologies will shape the range of plausible action and guide the selection of an outcome. An example of

specific religious ideology related to marriage is that some religious groups view women's main contribution to be the management of home and children, therefore less emphasis is given to women's education and they tend to marry earlier than in social groups where women and men are viewed as more egalitarian and equally encouraged to pursue education and careers outside the home (Basu 1992). There are both specific ideologies and general value orientations that religions encourage to varying degrees. These ideologies are not rigid determinants of behavior; rather they are forces that suggest or frame courses of action.

The ideological dimension of religion is what studies often try to measure when operationalizing religious difference at the level of religious identification or affiliation. This approach is based on the "particular theologies theory" arguing that certain theologies encourage marrying earlier than others (Goldscheider 1971). Although religious identification is one proxy for exposure to religious theologies, individuals can believe some religious doctrines and reject others; thus, in this paper we measure the content and magnitude of individuals' beliefs, in addition to the religion(s) with which they identify.

Religious ideology has multiple sources in Nepal. In a 2001census, 81% of the population identified as Hindu and religious minorities include Buddhists (11%), Muslims (4%), Kirants (4%), Christians (.5%), and Jains (.05%) (CBS 2001). These numbers are slightly misleading, because a forced choice survey question does not capture the degree to which the Nepalese practice multiple religions, especially the degree to which many religio-ethnic groups have been Hinduized over time, yet still draw on their indigenous religious beliefs and practices in everyday life (Guneratne 2002; Gurung 1988). A better way of thinking about sources of religious ideology in this setting, a relatively small country with over 60 different caste and ethnic groups and over 90 languages spoken (Dahal 2006; MOPE 2002; MOHP, New Era and Macro International 2007; Thapa 1997, 1989), is to consider the main religio-ethnic groupings, their place in the caste system and their relationship to Hinduism, Buddhism, and indigenous religions as sources of ideology.

The research proposed here focuses on four religio-ethnic groups in one region of Nepal, the Chitwan Valley: High Caste Hindus (Brahmins and Chhetris), Low Caste Hindus (e.g., Damais, Sarkis, and Kamis), Hill Tibeto-Burmese groups (e.g., Gurungs, Lamas, Magar, and Tamangs), and Terai Tibeto-Burmese groups (e.g., Tharu, Kumal, and Bote). According to the Hindu-designed caste hierarchy in Nepal, High Caste Hindus are considered the most "pure" and

privileged group, the Hill Tibeto-Burmese and Terai Tibeto-Burmese groups fall in the middle as groups that are not considered as pure as the High Castes, but are not as low in the caste (or purity) hierarchy as Low Caste Hindus.

High Caste Hindus, the religio-ethnic majority in Nepal, are the most ardent followers of Hinduism in the country. High Caste Hindus hold a privileged position in society with their language being state endorsed. Low Caste Hindus are also typically followers of Hinduism, with most committing to a life of religious duty thought to be rewarded in their next life. Hinduism has explicit doctrine and rituals that encourage early marriage. Hindu law encourages fathers to arrange marriages for their daughters at a young age, preferably within three years of the onset of puberty to avoid even accusations of premarital sexual activity (Banerjee 1984; Bennett 1983). Although the child marriage tradition has been relaxed over time, there are still remnants of the idea present. In 1996, 44% of Nepalese girls ages 15-19 had already been married. This percentage has dropped over time (from 74.3% in 1951), but still remains relatively high compared to other South Asian countries (Gubhaju 2002; MOPE 2002).

Another pro-marriage feature of Hinduism is that if a Hindu does not follow the path of asceticism and deny all worldly possessions and relationships, he/she must follow what Bennett (1983) terms the "householder's path." The "householder's path" requires men and women to marry and have children to obtain mukti (ultimate enlightenment) and release from samsara (the cycle of worldly life) (Gray 1995). It is especially important for Hindus to have a son, because a son represents a father's rebirth, and a son is needed to perform parents' funeral rituals (Basu 1992; Bennett 1983; Gray 1995; Niraula & Morgan 1995). Although sons are most important, marrying away a daughter is said to confer spiritual merit on parents (Berreman 1972; Gray 1995; Levine 1987; Weiss 1996).

Other features of Hindu ideology also encourage a frame of action that supports early marriage and childbearing (Dastider 1995; Gray 1995; Levine 1987; Stone 1978). The first is the patriarchal nature of Hinduism. Women leave their natal homes to move in with their husband's family following marriage, and one of the only means of obtaining respect and authority within a household is to bear children, especially sons (Bennett 1983; Dyson & Moore 1983). Also, mothers gain respect by marrying their daughters into reputable families and having their sons marry, bringing a junior wife into the home to take over cumbersome tasks.

The second general feature of Hinduism that encourages universal and early marriage and

childbearing is its strong theme of fatalism. Hindus are brought up to believe that their life circumstances have been pre-determined (Bista 1991). An everyday saying, lekheko matrai painchha, dekheko paidaina (one can have only what is written but cannot have what one sees), reinforces the notion that one's fate cannot be changed. Within this system of meaning, less emphasis is placed on achievement or future-planning (Bista 1991; Kamata 1999; Levine 1987). This makes the delaying of marriage or childbearing for educational or career purposes rather antithetical to general Hindu ideology. This is not to say that Hindus are not influenced by the spread of mass education and Western notions of achievement orientation, but those who have been socialized with Hindu ideas and who believe them more strongly are probably less likely to delay marriage or childbearing to improve their socioeconomic status. Previous fieldwork in this setting has suggested connections between Hindu ideology and fatalism that may influence family formation (Pearce 2002a).

The Hill Tibeto-Burmese groups in this study are closer followers of Mahayana Buddhism than Hinduism and the Terai-Tibeto Burmese believe in and practice indigenous animist religions. However, there is a great deal of overlap between Hinduism and Buddhism in Nepal. With Nepal having been an official Hindu country for many years, there is a civic religion mixing Hindu beliefs and practices with those of other religions (Dastider 1995; Guneratne 2002; Macfarlane 1976). Many national holidays revolve around Hindu holy days. However, there are still features of Buddhism and animist religions that make the central religious ideologies of some ethnic groups unique from those of the Hindu Caste groups.

Buddhism does not have specific religious ideologies about the importance of marriage, childbearing, or having sons (Ling 1969; Macfarlane 1976). Buddhism is not anti-marriage or anti-childbearing, but it is less prescriptive about the particulars of daily life than Hinduism. Buddhism is more concerned with general morality, the minimization of worldly desires, and the otherworldly pursuit of nirvana (Dastider 1995). Therefore, members of Hill Tibeto-Burmese groups receive few religious messages that directly encourage early marriage and having many children. In addition, Tibeto-Burmese religio-ethnic groups in Nepal are known for their more egalitarian gender systems (Acharya and Bennett 1981; Watkins 1996). Although most Buddhist ethnic groups also have patrilineal family organization, women have more power in household decision-making. Young adults have more power in the timing of their marriages (Ghimire, Axinn, Yabiku, & Thornton 2006), and son preference is lower, limiting the pressure for having

multiple sons (Pearce 2008). Fatalism is also less pervasive among the Hill Tibeto-Burmese (Bista 1991).

Understanding the source of religious ideology for Terai Tibeto-Burmese groups is complicated. While they follow beliefs and practices from their indigenous religions, like visiting Guraus (indigenous healers), they have also become greatly “Hinduized” (Guneratne 1994). Hinduization is the process whereby non-Hindu groups are encouraged to incorporate Hindu beliefs and practices to achieve assimilation into larger society (Guneratne 1994, 1998, 2002). To illustrate this, virtually all Terai Tibeto-Burmese families now use Brahmin priests to conduct Hindu marriage, child naming, and death ceremonies, but those in Hill Tibeto-Burmese groups do not. In previous fieldwork, Terai Tibeto-Burmese informants recalled fondly the relatively recent practice of bride capture marriage. Even though these experiences are expressed as positive memories, the informants always label them as “backward” ways and express current preference for Hindu ceremonies. Thus, there is some influence of Hindu ideology as described above, yet some lingering influence of the rich religio-cultural past of these groups. For example, Terai-Tibeto Burmese groups are also classified as having long-established gender egalitarian family organization (Acharaya & Bennett 1981). There is also evidence that levels of son preference among the Terai-Tibeto Burmese are much lower than among High and Low Caste Hindus (Pearce 2002a).

In sum, the four religio-ethnic groups we propose to study vary in their location in the Nepali caste and ethnic system, in the substance of their religious ideology, and in their general value orientations. Therefore, in line with particular theologies theory (Goldscheider 1971), those who identify with religio-ethnic groups with the more pro-marriage ideologies described above will frame the options for timing of family formation in ways that encourage earlier marriage.

Practice. Identifying the religion or religio-ethnic group with which an individual primarily identifies is one proxy for the exposure to ideological influences shaping his/her family formation; however, religious affiliation often misses variance in how religiously active individuals are. And, virtually all religions encourage family formation to some degree, so even controlling for religio-ethnic identity, we expect practice to universally encourage family formation in this setting. Thus, another dimension of religion featured in many sociological models of religious influence is the “doing” or practice dimension of religion which provides a

means for connecting with the sacred (Cornwall et al. 1986; Wach 1988). The frequency of the interaction with religious symbols and messages provided by practice represents both exposure and devotion to a system of meaning that shapes a person's frame of acceptable family formation behaviors. Studies of religion's influence on family formation in the United States have found that the more often individuals attend religious services, the less likely they are to cohabit, the younger they marry, the more children they desire, and the more children they have (Lehrer 2000; Mosher et al. 1992; Pearce 2002b; Thornton, Axinn, & Hill 1992; Thornton, Axinn, & Xie 2004). Attending religious services is positively associated with fertility in Europe (Frejka & Westoff 2008) and negatively associated with extramarital sexual relationships and perceived risk of HIV in Malawi (Trinitapoli & Regnerus 2006). Studies conducted in the Chitwan Valley have shown that more frequent private and public worship is associated with higher family size preference for Buddhists and Hindus (Pearce 2008). By examining how various types of religious practice relate to marital timing, this research will improve our understanding of how religious practice is associated with family formation.

The Nepali word for religion is dharma. Dharma is defined more in terms of action than belief (Bennett 1983; Bista 1991). Many features of everyday life are considered religious practice to Hindus including bathing, wearing clean clothes, cleaning the home, and eating right. While Buddhism is less connected to everyday activities, many Buddhist practices, including meditation, chanting, and lighting butter lamps are most commonly used by the Hill Tibeto-Burmese groups. The Nepali word for any kind of worship ritual is puja, and puja is most commonly performed at home or in a temple.

Regardless of religious affiliation, religious practice signals recognition of the sacred and reinforces religious worldviews. Almost every religion overtly promotes the value of family so not practicing religion, or decreasing one's religious practice over time will likely minimize the importance of early marriage, and make the use of contraceptive methods more appealing within individuals' frames of action.

Salience. Individual actors are exposed to religious ideologies and they engage in practices that reinforce these ideologies. However, members of the same religion, or those who practice religion in similar ways, can vary in the degree to which religion is salient to other realms of their life, such as family formation. A third dimension of religious influence that this proposed research considers is salience, elsewhere also defined as the importance of religion in

one's life or the authority that religion has compared to other meaning systems (Wimberley 1989). Studies have connected salience and family formation in the United States and Europe (Frejka & Westoff 2008; Pearce 2002b; Thornton, Axinn, & Hill 1992; Thornton & Camburn 1989). Examining religious salience connects well to the idea of religion's influence on the frame through which individuals are making decisions about the costs and benefits of arriage at a particular time. The more salient religion is to an individual, the more likely religious values will shape the decisions to be made and actions selected. The more salient religion is to an individual, the stronger the cost will be for waiting longer to marry.

Religious ideology, practice, and salience are learned in social settings and both individuals' religious identities and their family formation strategies are continually molded by interactions with those around them. Therefore, it is important that any consideration of religious influence keep in mind key social contexts such as the family. Parents religious characteristics are likely to shape offspring marital behavior in important ways.

Parental Influences on Children

Socialization and social control are two important ways that parents influence their children's behavior. Through socialization, parents affect their children's behavior by influencing how their children want to behave. Parents' preferences for their child shape the child's own attitudes, preferences, and intentions. One mechanism producing this result is modeling, in which children's observations of their parents shape the children's attitudes, preferences, and intentions (Bandura 1986; Campbell 1969; Chodorow 1978). Another mechanism producing this result involves active parental socialization techniques such as support and control (Baumrind 1978; Gecas & Seff 1990; Smith 1988). A third mechanism involves their shared social positions, background, and experiences; children may behave in accordance with their parents' preferences simply because their parents' preferences and their own opportunities were shaped by the same social forces (Bengtson 1975). Overall, children are socialized to evaluate behaviors similarly to their parents; thus, by behaving in accordance with their own attitudes and preferences, children may be conforming to their parents' wishes.

In contrast, parents influence their children's behavior <u>independent</u> of children's attitudes via social control techniques. Social control refers to parents' attempts to get their children to behave in ways that parents find appropriate, or to children's altering of their behavior simply to please their parents. These influences operate independently of how children themselves might

prefer to behave. They affect children's behavior through mechanisms other than children's own attitudes, such as punishment or rewards (Gecas & Seff 1990; Smith 1988). Parental socioeconomic resources are a particularly important source of social control. Parents may use their resources to subsidize some alternatives, making some behavioral choices easier for children to implement than others (Axinn & Thornton 1992b; Waite & Spitze 1981).

Parental religious ideology, practice, and salience may be especially influential on children's family formation behavior. In the West, children of more religious parents have higher rates of marriage and lower levels of premarital sex, cohabitation, and non-marital childbearing (Thornton 1985; Thornton et al. 1992; Thornton & Camburn 1989). Hindu religious doctrine provides strong proscriptions about individuals' sex lives and reproduction. Those rules strongly discourage premarital sex and childlessness on the one hand, but strongly encourage early and universal marriage, and childbearing within marriage on the other hand. Thus, in the predominantly Hindu setting of rural Nepal we also expect more religious parents will have children who marry faster (Bennett 1983; Majupuria & Majupuria 1989; Stone 1978; Vaidya et al. 1993; Weiss 1996).

Although there is little empirical information about the causal mechanisms linking parental religiosity to children's marriage in Nepal, there are several plausible theoretical connections. One significant mechanism is the children's own religiosity; highly religious parents have highly religious children who are more likely than others to marry quickly, have children early, have many children, and avoid contraception (Dahal 1993; Majupuria & Majupuria 1989; Maskey 1996; Niraula 1994; Pearce 2000). Second, parental religious participation and commitment may influence both children's and parents' attitudes toward a broad range of family issues which, in turn, influence children's family formation (Barber 2004; Pearce 2000). Third, highly religious parents may actively intervene in their children's lives to motivate and constrain them toward early marriage and childbearing and large families (Pearce 2000).

Gender Differences in Intergenerational Influences.

Although Asian societies are likely to be characterized by strong intergenerational influences, they are also highly gender stratified, which may make intergenerational relationships more gender specific. Below, we outline some of the reasons intergenerational influences on the timing of marriage may differ by gender.

First, parental characteristics may have a stronger influence on young women than on

young men because of variations in the nature of parent-child relationships. Previous research has shown that mothers' attitudes affect their daughters' behavior more than they affect their sons' behavior (Axinn & Thornton 1993). Unfortunately, relatively little is known about why mothers have a stronger impact on their daughters than on their sons. One possibility is that because the mother-daughter bond is the strongest of family relationships (Rossi & Rossi 1990), daughters are more likely to listen to their mothers and to take their mothers' advice. Sons may be more influenced by their fathers. Thus, children may be influenced by their same-sex parent. Second, in South Asian settings like Nepal sons often continue to live with their parents well beyond their marriage and daughters often move to the homes of their in-laws. As a result, parents have longer periods of opportunity to influence their sons than their daughters. This may give parents a stronger influence on sons than daughters. Third, by contrast, parents may have more influence on daughters than sons because daughters are less independent (Acharya & Bennett 1981; Bennett 1983). If daughters have less independence from their parents than sons, then we might expect that both mothers' and fathers' influences on their daughters would be stronger than their influences on their sons. Fourth, intergenerational influences may differ for young men and women because parental preferences are different for sons than they are for daughters. For instance, if parents have gender role attitudes which favor men in the workplace and women in the home, they would prefer different situations for their sons than for their daughters. Although research on gender role attitudes in South Asian settings is relatively rare, the ethnographic evidence about gender role attitudes from the region suggests this is likely to be a particularly strong source of gender differences in intergenerational effects in this setting (Acharya & Bennett 1981; Bennett 1983; Gray 1995; Stash 1996; Stone 1978; Weiss 1996). Our evidence from Nepal indicates males stay in school much longer than females, and when they exit schooling males give work reasons and females give marriage and childbearing related reasons for exiting (Beutel & Axinn 2002). So, these gender role attitudes are likely to direct daughters toward early family formation but sons toward competing activities that may delay family formation.

For these reasons it is essential to investigate gender differences in intergenerational influences on children. Our study is well designed to accomplish this. As explained below, the data we propose to use will provide the means to test these gender interactions.

Independent Influences of Mothers and Fathers

Although a great deal of intergenerational research has documented important effects of mothers on their children, a good deal less has examined the effects of fathers on children. Even less research has been able to directly compare the effects of mothers on their children to the effects of fathers on their children. The absence of research on the role of fathers was recognized by the scientific community as a major weakness of demographic research in the early 1990s, and since that time research on fathers has become an especially high scientific priority (Forum on Child and Family Statistics 1998; Gershenson 1983; Hanson et al. 1989; Nock 1998; Thornberry et al. 1997; Thornton 2001). Although these priorities center on family research in the United States and other western settings, we have even greater reason to investigate fathers' roles in Asian settings like rural Nepal. In this part of the world, intergenerational property and social transmission is paternal in nature (Bennett 1983; Cain et al. 1979; Caldwell 1982; Dyson & Moore 1983; Malhotra 1991). Under these circumstances the effects of fathers may not only be independent of the effects of mothers, they may actually be stronger than the effects of mothers.

A key reason intergenerational research on fathers has not taken place is the lack of data on fathers (Forum on Child and Family Statistics 1998). The situation has begun to improve in recent years, but the field still lacks panel data featuring comparable measurement from both mothers and fathers linked to a subsequent record of their children's behaviors. The project we propose overcomes this obstacle by using measures from identical 80-minute individual interviews with both mothers and fathers to predict behaviors in the children's lives over the eight years following these parental interviews. These detailed and comparable measures from both mothers and fathers provide an unprecedented opportunity to investigate the intergenerational influences from fathers to children.

Because we will use information from both mothers and fathers, we will be able to: (1) estimate the effects of fathers' religious ideologies, practices, and salience on children's marriage behaviors; (2) estimate the independent effects of fathers' and mothers' characteristics on children's marriage behavior; and, (3) compare our estimates of the effects of mothers' and fathers' characteristics on their children's behaviors. Because we have a full set of comparable measures obtained directly from the fathers, we will be able to conduct this investigation across all of the same domains as for mothers, including all the key intergenerational mechanisms discussed above. Moreover, we will also be able to extend research on fathers to the topic of

gender differences in the effects of fathers.

Data and Methods

Our research setting is a large valley in Nepal that was almost completely isolated from the rest of the world until the late 1950s. In the mid-1970s a series of road and bridge construction projects radically transformed this setting. Before these changes, most of social life was organized within families, including production, consumption, education, recreation, residence and protection. New connections to the outside world, however, brought a proliferation of nonfamily services that have recently transformed the social organization of residents' daily lives. These include wage-based production, school-based education, market-based consumption, science-based health care and western-oriented mass media. The setting is also characterized by dramatic changes in family formation and closely related behaviors.

Our current focus is intergenerational influences on first marriage. Thus, our analyses will be based on young people living with their parents at the initial observation and will estimate their subsequent transition rates. Three key pieces of information make our analyses possible: (1) individual interviews with multiple members of the same families, including young people, their mothers and their fathers; (2) nine subsequent years of prospective monthly data on family transitions; and (3) detailed measures of community context.

We operationalize community as what Nepalese call tols, or neighborhoods, because these local clusters of households constitute the hub of daily social life. The initial field work began in 1994-95 with the selection of a systematic, equal probability sample of tols in the Chitwan valley. We took multiple steps to insure that our sample of tols included dramatic variance on key dimensions of social context and ethnicity. First, we stratified our sample by distance from the urban center of the valley (Narayanghat), because our ethnographic data suggested it as one of the major sources of variance in social context. Thus, our initial sample of tols was equally distributed near Narayanghat, far from Narayanghat, and in-between. Second, we added an oversample of the Newar and indigenous Tibeto-Burmese ethnic groups to insure sufficient cases for within-group analyses and cross-group comparisons. Third, as we learned more about the actual distribution of contextual variation throughout Chitwan, we added another oversample from the areas with the greatest variance in access to these changes. The result is a population-based probability sample of 151 tols, with stratification and oversampling to insure high levels of variance in key theoretical dimensions. With appropriate weighting, the sample

represents the distribution of neighborhoods in Chitwan. Although families with many children in 1996 are over-represented in our study of intergenerational influences, the distribution of family sizes is known, so that appropriate weights can be applied to represent the general population of Chitwan.

In 1996 we conducted household interviews and individual interviews with all individuals age 15-59 in those tols. These interviews collected a wide range of demographic, economic, social and attitudinal information from each of the individuals living in the households. In addition, the individual interviews included a semi-structured interview based on a life history calendar. Since the 1996 interviews, we have collected a prospective monthly demographic event registry, which includes data on marriages, pregnancies, births and contraceptive use from 1996 through the present for every individual interviewed in 1996, even if they left Chitwan. We also have similar data about their family members, including new spouses or children.

Children's Family Formation. Children and their parents – both mothers and fathers – were respondents in our individual interviews conducted in 1996, so identical information was collected from children, mothers and fathers. We link our measures of the parental family to measures of children's behavior using a household relationship grid collected in 1996, which measured the relationships of each household member to every other household member (parent, child, sibling, spouse or other). This complete relationship enumeration has important advantages over measures of relationship to the "household head," as it allows us to directly link interview data from each person in the household to every other person.

The prospective monthly demographic event registry is our main source for measures of the children's marriage between the 1996 baseline interviews and the present. Interviewers made monthly visits to each household to collect information about marriages, divorces, pregnancies and births occurring in the previous month. Interviewers also conduct a private interview with each adult to update records of contraceptive use. Interviewers use forms with space for six months of data for each monthly visit, sending completed forms for computerized data entry and switching to new forms every six months. Note everyone interviewed in 1996 is included in these monthly updates regardless of when or where they migrate, so migration does not censor our observations. These registry data result in monthly precision for our measures of the timing of children's family formation, which is important for our event history models (described

below). We have a total of 126 months of registry data ready for analysis e. For those included in our analytic sample, we have maintained retention rates of over 95% in the household interviews (our source for marriage and childbearing measures) and over 91% in the individual contraceptive use interviews.

Dependent Variables: marriage timing

Our analyses of the first marriage rate will include all young people who had never been married at the time of the 1996 baseline interview. We estimate hazard models of the rate of entrance into first marriage subsequent to that interview. Our analysis of entrance into first marriage will take into account the fact that in Nepal there is often a significant period of time between the marriage being legally and socially contracted and the couple commencing to live together. Because this time can vary across couples, it is important to ascertain both the time the marriage was contracted and the time the couple started to live together. The household registry ascertains both events. It will be our practice to define and use two marriage variables—both the legal contraction date and the date of coresidence—to ascertain if the estimated influence of intergenerational or contextual factors varies by the definition of the date of marriage.

Because arranged marriage is common in Nepal, and intergenerational influences on arranged marriage may differ from influences on choice marriage, we will also investigate models of the rate of first marriage that differentiate between types of marriage. As in our previous research, these models will treat arranged marriage and choice marriage as competing routes for exiting the single state. By estimating competing risks hazard models of the rate of entering arranged first marriage and choice first marriage, we are able to estimate differences in the intergenerational and contextual influences on these two types of marriage.

Independent variables: religious beliefs, behaviors, and salience

We create several measures of religiosity for the respondent and his/her parents. For each component of religious beliefs, behaviors, and salience, we create comparable measures for the respondent and both of his/her parents.

We look at four measures of religious beliefs, all specific to the Nepalese religious context. The first measure captures beliefs regarding the importance of certain death rituals. Respondents and their parents were all asked: How important is it to you to perform (Shradha/Arghau/Tarpan) for dead ancestors? Would you say it is very important, somewhat important, or not at all important? This measure is coded on a scale of 0 (not at all important) to

2 (very important). The other three belief measures are more specific to marriage. Respondents and their parents were asked the degree to which they agree or disagree with the following three statements: Parents should always choose a spouse for their child; After coming to her husband's home, a daughter-in-law should be obedient to her mother-in-law; and A girl should be married before her first menstruation. All three measures are coded on a scale of 0 (strongly disagree) to 3 (strongly agree).

To measure behaviors we look at both practice in the home and outside the home. We create measures based on the frequency children and their parents worship at home (do puja) and outside the home at temples. Each measure is coded on a scale of 0 (never) to 2 (more than once a week) for doing puja at home and 0 (never) to 2 (more than once a month) for going to temples.

Finally, we create a measure of salience. Respondents and their parents were asked "how important is religion to you? Would you say it is very important, somewhat important, or not at all important?" This measure is also coded on a scale of 0 to 2.

Models of Intergenerational Influences on Family Formation

Our models treat marriage as a transition occurring over time, from being never married to marrying for the first time. We use event history, or hazard modeling, techniques to estimate these discrete-time hazard models and estimate separate hazard models for sons and daughters. Because individuals are clustered within neighborhoods we estimate multi-level hazard models as described by Barber et al. 2000.

We begin by estimating the overall effects of our measures of parental religious beliefs, behaviors, and salience on the timing of children's marriage. To accomplish this we estimate models for individual i in neighborhood j in month t, where the outcome of interest is 1 if individual i experiences a marriage in month t, and 0 otherwise. Our hazard models include a vector of variables representing the baseline hazard. In particular, we include measures of the respondent's age in 1996 and the time since the hazard started. We draw heavily on previous analyses of these data to properly specify our models.

We start with models estimating the effect of the father's and then the mother's religiosity on the respondent children. We then include both parents' religiosity measures in the models to ascertain whether mother's and father's have independent effects on their children. Finally, we add the measures of the respondent child's own religiosity to see whether parents'

religiosity influences marriage timing at least partly through the formation of children's religious beliefs, practices, and salience.

Analyses of Gender Differences. As discussed above, we also investigate the potential gender differences in these intergenerational effects. To accomplish this we estimate separate models of the relationship between parental variables and children's family formation outcomes for sons and daughters as well as pooled son-daughter models that include interaction terms for potential interactions between the gender of the child and each specific intergenerational influence. Models with interaction terms will be particularly important because the significance tests for the coefficients on these interaction terms provide a statistical test for the significance of observed gender differences.

Estimating Multilevel Hazard Models. This analysis estimates the regression coefficients of both the contextual-level covariates and the individual-level covariates by approximating the likelihood of the data and maximizing this approximation. An approximation to the likelihood is used because (as illustrated below) the likelihood is complex. Suppose that the time from the baseline survey until the first marriage is the dependent variable. Let p_{tjk} denote the conditional probability of first marriage at time t for person j in neighborhood k, $p_{tjk} = P[Y_{tjk} = 1|\mathbf{X}_{tjk}]$. Y_{tjk} is 1 if individual j experiences a first marriage in month t, and 0 otherwise. Using multilevel terminology, the individual-level hazard model is,

$$\text{Logit}(p_{tjk}) = \beta_{0k} + \Sigma_i \beta_{itjk} X^i_{tjk}$$

where X^i_{tjk} is the value of the ith individual-level covariate at time t for person j in neighborhood k. Note that both the intercept and regression coefficients are allowed to vary by neighborhood. This variation by neighborhood can be modeled by the neighborhood level covariates as follows,

$$\beta_{ijk} = \gamma_{i0} + \Sigma_i \gamma_{i1} X^c_{itk} + \varepsilon_{ik}$$

where X^c_{itk} is the value of the ith contextual-level covariate at time t for the kth neighborhood. We will assume that the error terms or random effects, ($\varepsilon_{1k}, \varepsilon_{2k}, \varepsilon_{3k}, \ldots$.) are multivariate normal with mean zero and unknown variance-covariance matrix. After including the neighborhood level covariates, if there is no remaining residual similarity between

individuals in the same neighborhood then the variances of the random effects will be zero.

For estimation of intergenerational effects we must also address the issue that some families contribute one child to our analysis and others contribute more than one. We will also address this family-level clustering with a multilevel modeling approach. To estimate our contextual-intergenerational models addition of this family-level of clustering will require three-level multilevel models. Standard techniques are available for estimating three-level models that simultaneously account for two levels of clustering, they have been widely applied in previous research, and we propose to use them in our research (Bhalotra & Soest 2005; Duncan et al 2003; Kim et al. 2006; Pong & Hao 2006; Sastry et al. 2005).

Results

Tables 1 through 3 present our preliminary results. Theses tables show the estimated effects of fathers', mothers', and one's own religious beliefs (Table 1), behaviors (Table 2), and salience (Table 3) on the timing of children's entry into first marriage. In general what we find is that fathers' religious beliefs, behaviors, and salience are particularly important for the timing of sons' marriage, but not for daughters. Mothers' religious beliefs, behaviors, and salience do not appear to influence children's marriage timing and parental religiosity does not appear to predict daughter's marriage timing. When we include the measure of the child's own beliefs, behaviors, and salience the estimated effects of fathers' religiosity generally do not change, indicating that parental religiosity influences marriage timing through some mechanism other than the socialization of children toward a particular ideology and practice.

Future plans

This study is not complete. As described above, we plan to do additional analyses that will investigate the effects of parental religious influences on arranged marriages.

More complete results, discussion, and conclusion sections will be written in the future based on these and future analyses.

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Table 1. Multilevel hazard models of marriage: effect of religious beliefs on the timing of children's marriage

			Importance of death rituals				Parents should choose spouse				Daughter-in-law should obey mother-in-law				Girls marry before menstruation			
	Daughters	Sons	Daughters		Sons		Daughters		Sons		Daughters		Sons		Daughters		Sons	
Models	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Religio-ethnic group (High Caste Hindu is reference group)																		
Low Caste Hindu	1.19	1.61*	1.07	1.07	1.54*	1.38+	1.06	1.06	1.5*	1.16	1.05	1.1	1.28	1.54*	1.1	0.98	1.58*	1.48+
	(0.72)	(2.16)	(0.25)	(0.27)	(1.81)	(1.38)	(0.22)	(0.21)	(1.73)	(0.64)	(0.2)	(0.39)	(1.04)	(1.81)	(0.39)	(-0.06)	(1.91)	(1.64)
Newar	1.01	0.78	0.89	0.93	0.71	0.68+	0.91	0.89	0.71	0.66+	0.9	0.93	0.7+	0.73	0.93	0.89	0.75	0.76
	(0.07)	(-0.9)	(-0.57)	(-0.37)	(-1.2)	(-1.4)	(-0.45)	(-0.55)	(-1.2)	(-1.52)	(-0.52)	(-0.35)	(-1.33)	(-1.08)	(-0.38)	(-0.59)	(-0.99)	(-0.97)
Hill-Tibeto Burmese	1.2	1.58**	1.14	1.17	1.51*	1.44*	1.17	1.14	1.56*	1.23	1.16	1.2	1.31	1.61*	1.21	1.2	1.63*	1.49*
	(1.01)	(2.4)	(0.69)	(0.89)	(1.94)	(1.71)	(0.87)	(0.71)	(2.12)	(0.98)	(0.78)	(1)	(1.28)	(2.2)	(1.09)	(1.01)	(2.29)	(1.86)
Terai-Tibeto Burmese	0.74*	1.87***	0.73*	0.75*	2.08***	1.83**	0.78+	0.76+	1.93***	1.47*	0.77+	0.79+	1.55*	1.93***	0.8+	0.69*	1.95***	1.68*
	(-1.7)	(3.15)	(-1.7)	(-1.67)	(3.46)	(2.99)	(-1.46)	(-1.44)	(3.19)	(1.94)	(-1.37)	(-1.38)	(2.18)	(3.13)	(-1.36)	(-2.02)	(3.15)	(2.25)
Measures of parental religious beliefs,behaviors, and salience																		
Father's belief or behavior			0.9	0.95	2.22***	1.09	0.96	0.92	1.1+	1.19**	0.93	1.08	1.19*	1.08	1.08	0.8	1.08	1.29**
			(-0.68)	(-0.73)	(3.82)	(1.18)	(-0.56)	(-1.16)	(1.31)	(2.33)	(-1.09)	(1.16)	(2.28)	(0.99)	(1.21)	(-1.37)	(1.08)	(2.57)
Mother's belief or behavior			0.88	1.04	0.6	1.03	1.05	1.08	1.05	1.15*	1.08	1.07	1.17*	1.21**	1.07	1.01	1.22**	0.72**
			(-0.69)	(0.66)	(-2.59)	(0.42)	(0.76)	(1.13)	(0.65)	(1.91)	(1.22)	(1)	(2.23)	(2.64)	(1.04)	(0.06)	(2.76)	(-3.03)
Own belief or behavior				1.15*		1.17*		1.03		1.16*		1.03		1.08		0.86+		1.18*
				(2.05)		(2.08)		(0.47)		(2.21)		(0.34)		(0.82)		(-1.6)		(1.79)
CONTROLS																		
Birth cohort categories																		
Aged 16-17	1.19	1.36*	1.22+	1.28+	1.42*	1.34+	1.23+	1.23+	1.31+	1.34+	1.22+	1.2	1.31+	1.39*	1.19	1.21	1.39*	1.32+
	(1.2)	(1.73)	(1.34)	(1.64)	(1.88)	(1.57)	(1.38)	(1.4)	(1.44)	(1.58)	(1.35)	(1.22)	(1.45)	(1.75)	(1.18)	(1.26)	(1.73)	(1.48)
Aged 18-19	1.33*	2.53***	1.32*	1.39*	2.79***	2.64***	1.32*	1.34*	2.57***	2.57***	1.33*	1.25+	2.56***	2.79***	1.25+	1.3*	2.82***	2.79***
	(1.84)	(4.88)	(1.75)	(2.04)	(5.12)	(4.88)	(1.75)	(1.84)	(4.75)	(4.74)	(1.8)	(1.43)	(4.74)	(5.08)	(1.42)	(1.66)	(5.15)	(5.13)
Aged 20-24	1.17	4.15***	1.26	1.31+	4.8***	4.66***	1.25	1.29+	4.3***	4.03***	1.28+	1.22	4.02***	4.83***	1.22	1.22	4.78***	4.65***
	(0.89)	(7.23)	(1.25)	(1.48)	(7.5)	(7.37)	(1.22)	(1.39)	(7.03)	(6.76)	(1.34)	(1.11)	(6.75)	(7.44)	(1.07)	(1.1)	(7.41)	(7.42)
ICC	0.10	0.28	0.07	0.06	0.33	0.29	0.06	0.07	0.31	0.21	0.07	0.03	0.25	0.33	0.02	0.04	0.33	0.34
Deviance	3357	3255	3169	3161	2940	2934	3164	3144	2937	2950	3145	3185	2943	2929	3190	3178	2929	2940

Table 2. Multilevel hazard models of marriage: effect of religious practice on the timing of children's marriage

			Do puja at home				Worship at temples			
	Daughters	Sons					Daughters		Sons	
Models	1	2	3	4	5	6	7	8	9	10
Religio-ethnic group (High Caste Hindu is reference group)										
Low Caste Hindu	1.19	1.61*	0.97	1.03	1.52*	1.53*	1.02	1.04	1.54*	1.56*
	(0.72)	(2.16)	(-0.1)	(0.12)	(1.74)	(1.8)	(0.08)	(0.15)	(1.82)	(1.89)
Newar	1.01	0.78	0.87	0.9	0.73	0.69+	0.9	0.9	0.7+	0.68+
	(0.07)	(-0.9)	(-0.7)	(-0.54)	(-1.12)	(-1.32)	(-0.51)	(-0.54)	(-1.29)	(-1.36)
Hill-Tibeto Burmese	1.2	1.58**	1.16	1.13	1.53*	1.52*	1.13	1.18	1.56*	1.54*
	(1.01)	(2.4)	(0.83)	(0.7)	(2)	(1.96)	(0.67)	(0.92)	(2.1)	(2.03)
Terai-Tibeto Burmese	0.74*	1.87***	0.71*	0.66*	1.69*	1.82**	0.68*	0.75*	1.82**	1.85**
	(-1.7)	(3.15)	(-1.85)	(-2.16)	(2.26)	(2.59)	(-2.05)	(-1.67)	(2.56)	(2.88)
Measures of parental religious beliefs,behaviors, and salience										
Father's belief or behavior			0.88+	0.88+	1.32**	1.06	0.88+	0.98	1.06	1.27+
			(-1.39)	(-1.33)	(2.81)	(0.54)	(-1.31)	(-0.2)	(0.55)	(1.62)
Mother's belief or behavior			0.98	0.92	0.72***	0.87	0.91	0.93	0.88	0.92
			(-0.22)	(-0.76)	(-3.09)	(-1.12)	(-0.92)	(-0.59)	(-1.03)	(-0.7)
Own belief or behavior				0.88		1.22*		1.12		1.17+
				(-1.09)		(1.88)		(1.07)		(1.38)
CONTROLS										
Birth cohort categories										
Aged 16-17	1.19	1.36*	1.2	1.21	1.32+	1.36*	1.23+	1.23+	1.36*	1.37*
	(1.2)	(1.73)	(1.22)	(1.28)	(1.5)	(1.66)	(1.4)	(1.38)	(1.67)	(1.69)
Aged 18-19	1.33*	2.53***	1.29+	1.3+	2.71***	2.71***	1.31*	1.33*	2.67***	2.72***
	(1.84)	(4.88)	(1.62)	(1.64)	(5.01)	(4.98)	(1.7)	(1.78)	(4.95)	(5.04)
Aged 20-24	1.17	4.15***	1.24	1.23	4.59***	4.66***	1.26	1.25	4.58***	4.54***
	(0.89)	(7.23)	(1.16)	(1.11)	(7.37)	(7.39)	(1.26)	(1.23)	(7.35)	(7.28)
ICC	0.10	0.28	0.04	0.04	0.34	0.31	0.05	0.05	0.32	0.34
Deviance	3357	3255	3180	3170	2943	2957	3167	3178	2956	2948

Table 3. Multilevel hazard models of marriage: effect of religious salience on the timing of children's marriage

	Religion is important			
	Daughters		Sons	
Models	1	2	3	4
Religio-ethnic group (High Caste Hindu is reference group)				
Low Caste Hindu	1.06	1.04	1.6*	1.56*
	(0.21)	(0.15)	(2.01)	(1.88)
Newar	0.9	0.9	0.69+	0.68+
	(-0.51)	(-0.52)	(-1.32)	(-1.35)
Hill-Tibeto Burmese	1.17	1.18	1.61*	1.55*
	(0.9)	(0.91)	(2.26)	(2.04)
Terai-Tibeto Burmese	0.77+	0.75+	1.88**	1.88**
	(-1.52)	(-1.62)	(2.96)	(2.99)
Measures of parental religious beliefs,behaviors, and salience				
Father's belief or behavior	0.97	0.96	1.3*	1.23
	(-0.22)	(-0.28)	(1.8)	(1.28)
Mother's belief or behavior	0.94	0.9	0.93	0.9
	(-0.52)	(-0.81)	(-0.61)	(-0.73)
Own belief or behavior		1.09		1.18+
		(0.74)		(1.35)
CONTROLS				
Birth cohort categories				
Aged 16-17	1.21+	1.22+	1.36*	1.37*
	(1.3)	(1.31)	(1.65)	(1.7)
Aged 18-19	1.31*	1.32*	2.68***	2.74***
	(1.69)	(1.72)	(4.97)	(5.06)
Aged 20-24	1.24	1.25	4.53***	4.58***
	(1.16)	(1.21)	(7.29)	(7.31)
ICC	0.05	0.05	0.34	0.34
Deviance	3175	3174	2949	2949