The Influence of Individual and Neighbor Attitudes on Progression to Higher Parity Birth

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Abstract

Large families can have a negative impact on the health and well-being of women, children, and their communities. Although 60% of people in our rural Nepalese sample report that two children is the ideal, nearly half of married women in our sample continue to give birth after their second child. We explore the attitudinal influences behind women's progression to third and fourth births, investigating the influences of both neighbors' and women's own attitudes and comparing these influences across two cohorts. We find that a) women's attitudes tend to have a strong influence on their higher parity fertility, b) neighbors' attitudes sometimes have an independent influence on women's fertility, but do not explain the individual-level effect, c) younger cohorts of women are influenced by both their own attitudes and their neighbors' attitudes, and d) older cohorts of women are more influenced by neighbors' attitudes than their own attitudes.

Introduction

Most countries of the world have experienced rapid fertility decline in recent decades (Caldwell 2001). The decline was partly caused by the global dissemination of Western ideals that placed greater value on smaller families. This dissemination occurred both through the non-deliberate diffusion of ideas within and between populations (Thornton 2005; Casterline 2001; Watkins 1987; Hornik and McAnany 2001) and the more deliberate family planning initiatives that focused on changing people's preferences and making those preferences achievable (Thornton et al. Forthcoming). These values are evident to have been successfully circulated in rural Nepal, where sixty percent of people in our sample say that two children is the ideal. Yet, about half of women have one or more additional births after their second child. Thus, a substantial proportion of the population is moving beyond the widely valued small family to have large families of their own.

Higher parity births can have consequences for the health and well-being of both mothers and children. Compared to small families, larger families tend to have more closely spaced births and more children concentrated in young ages. With more mouths to feed and less time for a mother's body to recuperate between births, mothers and children of these growing families may be at risk of nutritional deprivation or other negative health outcomes (Horton 1986; Desai 1995; Winnikoff 1983). Furthermore, parents have finite resources to distribute among their children, and the resources available to each child are reduced as family size increases (Zajonc and Mullally 1997; Powell and Steelman 1990). For example, parents may invest less in each child's "quality" and education when they have more children to invest in (Knodel, Havanon, and Sittitrai 1990; Blake 1981; Kessler 1991; Knodel 1991). Additionally, parental emotional investment per child is less (Kidwell 1981), which may impede social and emotional growth. So, as a family's size increases, the family's health and child quality may decline.

Women may transition from having a small to a large family if they hold attitudes that favor larger families. There is substantial evidence linking attitudes to behaviors in western settings (e.g., Ajzen 1988; Fishbein and Ajzen 1975; Barber 2001). However, in the rural Nepalese context, research has typically focused on collectivism and less on the fulfillment of one's own desires. People's lives are embedded in their families and communities, and people often consider the preferences of others when making important decisions (Ghimire, Axinn, Yabiku, and Thornton 2006). Yet, with the recent and rapid spread of media exposure, schooling, and transportation services that provide access to urban centers, people are spending more time outside of their homes and communities (Axinn and Yabiku 2001; Yabiku 2005). With these recent changes, young people are exposed to more individualistic ideas and goals, making the study of the link between people's attitudes and behaviors of increasing importance in this setting.

Even with these recent social changes that lead to more individualistic values, neighbors still play an important role in the lives of Nepalese people. In rural Nepal, people interact with their neighbors on a frequent and regular basis (Barber 2004). Neighbors are often aware of individuals' actions within the neighborhood and these actions may even have consequences for neighbors' well-being. Furthermore, we might expect individuals to be aware of their neighbors' attitudes and to feel pressure to behave in ways that will keep them in good standing with their neighbors. In fact, neighbors' attitudes may influence people's behaviors more than their own attitudes in this setting. We explore the role that neighbors' attitudes play in women's parity progression and how this compares to women's own attitudes.

This paper investigates the influences of women's own attitudes and their neighbors' attitudes on their progression to higher parity—that is, third or fourth birth. We first investigate the extent to which women's own attitudes influence their progression to higher parity. We then compare the impact of

individuals' attitudes to their neighbors' attitudes to determine whether women are more influenced by their own attitudes, neighbors' attitudes, or both. Finally, we examine cohort differences to assess whether younger women respond differently to their own or neighbors' attitudes than older women. In the following section we outline the theoretical reasons to expect that attitudes from within and outside of oneself will have a significant influence on women's behavior.

Theoretical Framework

Women's own attitudes should influence their choice to progress from a small to a large family size. Many models of behavior share the assumption that behavior results from a rational process, where individuals consider their options, evaluate the consequences, and make decisions about how to act. For example, the most widely used social science framework to understand the relationships among attitudes, intentions, and behavior combines the reasoned action and planned behavior frameworks (Fishbein and Ajzen 1975). In this framework, general attitudes, beliefs, and preferences related to a behavior predict intentions, and intentions predict behavior. Demographic theories of fertility decline draw on similar concepts. In fact, Freedman, Coombs, and others (1974) used the framework to refine the concept of KAP-gap; they referred to the gap between the desire to stop childbearing and the lack of contraceptive use as "discrepant behavior." Furthermore, Lesthaeghe's "Ready, Willing, and Able" (Lesthaeghe and Vanderhoeft 2001) and Coale's "Three Conditions for Fertility Decline" (Coale 1973) posit the need for people's attitudes to be favorable toward smaller families before they choose to adopt family planning methods.

Other people's attitudes can influence one's behavior as well. For example, ample evidence shows that parents influence the behaviors of their offspring (Barber 2000; Axinn and Thornton 1993; Axinn and Thornton 1996; Bengtson 1975). Friends and peers can also influence behavior, through social norms and stigma that directly guide behavior and may shape preferences (Stuber, Galea, and

Link 2008). We extend this to neighbors', who are important others in women's lives and with whom women, in this rural Nepalese context, have close contact. As a result of their close proximity and frequent contact with neighbors, we expect that individuals will be aware of their neighbors' attitudes and act according to them.

We may expect neighbors' attitudes to influence women's behavior via socialization. Neighbors have close and constant interaction with each other, and this frequent interaction provides ample opportunity for new ideas to diffuse between them (Lesthaeghe 1978; Bongaarts and Watkins 1986; Behrman, Kohler, and Watkins 2002; Barber 2004). This may lead women to internalize neighbors' attitudes and develop or change their own attitudes to be in line with their neighbors'. Another reason we might expect attitude similarity, other than the transmission of attitudes between neighbors, is that people are exposed to similar surroundings as their neighbors. For example, people within a neighborhood all live approximately the same distance from the city, markets, schools, etc. A third reason to expect attitude similarity has to do with selection. Instead of *developing* attitudes similar to their neighbors', individuals may have self-selected into communities where they are surrounded by people who share their attitudes. Thus, there are reasons to expect that individuals will be influenced by neighbors' attitudes, or that they will share similar attitudes with neighbors that is not caused by socialization.

Neighbors may also influence women's behaviors via social control, or social pressure (Barber 2000; Troyer and Younts 1997; Fishbein and Ajzen 2010). Neighbors can instill social norms, which guide women's choices and encourage them to behave in a certain way. Neighbors also have the power to punish, via stigmatization, if someone in the neighborhood does not behave as deemed appropriate. These forces may lead women to set aside their own desires in order to appease their neighbors. For example, a woman may want a large family, but she may be aware that this is socially undesirable in her

neighborhood and may, therefore, limit her fertility in order to avoid being stigmatized or ostracized (Stubera, Galea, and Link 2008; Coleman 1990). In this case, as in the case of internalization, women behave in ways that satisfy her neighbors' attitudes. However, in this case, unlike in the case of internalization, satisfying her neighbors' attitudes does not permit her to satisfy her own attitudes.

The influence of neighbors' attitudes relative to individuals' own attitudes may change over time, as individualistic values become more common. In the setting we study, there has been especially rapid social change (Axinn and Yabiku 2001; Yabiku 2005), giving people easier access to education and to travel outside of their home community, among other things. With these changes come new ideas and perhaps more individualistic values. Younger cohorts, who have had more exposure to school, work, and other nonfamily experiences, may be less influenced by their neighbors' attitudes, and choose instead to follow their own desires, as a result of this new individualism and as a result of acquiring ideas from outside of their neighborhood.

We exploit monthly prospective panel data spanning over ten years to investigate the link between attitudes and subsequent progression to higher parity births. We then take advantage of our unique sample, in which every member of every sampled neighborhood was interviewed, to examine the influence of neighbors' attitudes on subsequent transitions to higher parity. Finally, we investigate these effects across the two cohorts of women in our sample. We explore whether younger cohorts of women follow their own attitudes more than their neighbors', and whether the influence of neighbors' attitudes has decreased over time.

Setting

Our data come from the Chitwan Valley Family Study in Chitwan, Nepal. Much of the population of Nepal and of our sample depends on subsistence agriculture. Nepal is one of the most rural countries in the world, with only 17% of the population living in urban areas (Population

Reference Bureau 2010). Additionally, fertility in Nepal is among the highest in South Asia, with a TFR of 3.0 (Population Reference Bureau 2010). Like many other agrarian nations with high fertility, Nepal has been experiencing a drop in fertility since the 1970s (Hirschman and Guest 1990; UN Data 2011). The average fertility of women in the CVFS is slightly lower than the country as a whole, at 2.64 children per woman, with a wide variance (standard deviation of 2.57), as of our baseline survey in 1996.

In Chitwan, people's lives are mainly centered around the family and within their own community. There is one city on the edge of our study area, along with many small town centers throughout the area, with a few stores that sell basic goods. However, the majority of our sample lives in rural areas, where most of them own and manage rice fields that are attached to their homes (see Barber 2004 for description of CVFS neighborhoods). Our sample consists of 151 neighborhoods, sampled from three strata of varying distance from the city. These neighborhoods typically consist of naturally-occurring clusters of 5 to 15 households, surrounded by farmland. (Where a neighborhood consisted of more than 15 households, we chose one contiguous section of the neighborhood.) The people living within these clusters interact with one another on a daily basis, during their routine activities, such as collecting water or firewood. If houses have front doors, they are usually kept open, indicating that there is both a lack of privacy and a lack of concern for privacy (Barber 2004). Due to this openness and sharing of daily activities within communities, neighbors are a significant part of their social life.

Hypotheses

We approach our analyses with three main hypotheses, following the theoretical framework described above.

1. Women who prefer large families, have a strong son preference, have less favorable attitudes toward using contraception, and expect sons to work for pay will have higher odds of a higher parity birth than women who prefer smaller families, have weaker son preference, and do not expect sons to work for pay.

2. We expect that neighbors' attitudes toward these same issues will be similarly related to individual behavior, in a manner that is independent of individuals' own attitudes.

3. We expect that older cohorts of women will be more influenced by their neighbors' attitudes than younger women, and that the younger cohort will be more influenced by their own attitudes than by their neighbors' attitudes.

Data

To test our expectations we use data from the Chitwan Valley Family Study (CVFS) conducted in rural Nepal. The CVFS includes a baseline interview, consisting of a structured questionnaire and a semi-structured Life History Calendar interview, which was conducted in 1996. These interviews collected the information on both the attitudinal and experiential measures that we employ in our analyses. The CVFS interviewed all members of households aged 15–59 in sampled neighborhoods and their spouses (even if outside this age range or living elsewhere). The overall response rate for the survey was 97%. Monthly follow-up interviews were conducted, beginning in 1997, collecting information about household members on a range of demographic events, including giving birth. The study is particularly well-suited for studying community effects on behavior: it provides data from 72-minute interviews with each resident of each of the neighborhoods in our sample.

Our sample consists of all women between ages 15-34 in 1996 who were at risk of having a pregnancy after their second and/or third live birth (N=580). Sterilized women or women whose husbands were sterilized are not included in our sample. Our independent variables—measures of

attitudes—come from the baseline study conducted in 1996, while the dependent variable for higher parity pregnancy comes from 126 monthly interviews, beginning in 1997. Although our investigation is limited to attitudinal effects and pregnancy outcomes for women, there is evidence that women and men (husbands) share similar family size preferences (Mason and Taj 1987).

Measures

Dependent variable. Our dependent variable is a monthly time-varying indicator of pregnancy, coded as a dichotomous variable to indicate whether respondent is currently pregnant or not. We use 126 months of data on whether respondent gave birth to operationalize the monthly hazard of getting pregnant in discrete time. The discrete time approach yields results similar to a continuous approach because the incidence of pregnancy in any one month is quite low, but the discrete time approach allows us to avoid making any parametric assumptions regarding the distribution of the underlying baseline hazard (Yamaguchi 1991). Fertility behavior is observed each month. The measure of pregnancy is coded as 0 for every month the person is not pregnant and 1 in the ninth month prior to giving birth. Then, for the eight months prior to birth and the three months after the birth, the respondent ceases to contribute to person-months of exposure to risk of pregnancy.

We analyze third and fourth parity pregnancies because the majority of people in the sample—60% of all CVFS respondents and 72% of our refined sample—report that two children is the ideal family size. Furthermore, the media and family planning messages transmit the idea that two children is the norm and that this moderately small family size is ideal (Barber and Axinn 2004). Thus, we want to study the reasons that people behave against this norm and these messages to have more than two children.

Attitudes. Our independent variables include attitudes at both the individual-level and the neighbor-level. For neighbors' attitudes, we employ the same measures as for individual attitudes. We

constructed neighbor average levels of each measure based on each adult resident of each of the 151 neighborhoods. Thus, the average attitudes for each neighborhood are constructed by summing the values of the measure for each resident and dividing by the number of residents. The respondent's own attitudes, household members' attitudes, and neighboring relatives' attitudes are not included in these averages; thus the neighborhood average differs for each respondent in each neighborhood. These measures are described in the following paragraphs.

Family size preferences are measured in two ways: with a single item and with a Coombs scale (Coombs 1974, 1979). The single-item measure indicates the response to the question "People often do not have exactly the number of children they want to have. If you could have exactly the number of children you want, how many children would you want to have?". Responses ranged from 1 to 9. Because few women indicated a desire for more than three children, we recoded the variable into three categories: one child; two children; and three or more children. No neighbors, however, stated a preference for one child. Thus, we code this variable into two categories for neighbors: two children and three or more children. See Table 1 for descriptive statistics of neighbors' and individual women's family size preferences for each cohort.

-Table 1 about here-

Because the majority of respondents stated a preference for two children, we use a Coombs scale to differentiate, for example, between those respondents who want two children at maximum and those who want two children at minimum. After being asked how many children they would like to have, respondents were asked how many children they would like to have if they could not have their first choice. (Respondents who already had children were asked how many children they would like to have if they could start life over.) Finally, they were asked how many children they would have if they could have neither of their first two choices. Originally, this item was coded on a scale of 1 to 25. We have

collapsed the individual-level item into 5 categories for individuals, since few women in our sample fall below a Coombs scale value of 4 or above a value of 8. Similarly, we recoded the neighbor-level item, collapsing those at or below a value of 6 and those at or above a value of 8 to create 3 categories.

The other attitudes are measured by Likert-scale responses to different statements. Attitudes toward the value of children versus money comes from a survey item asking the extent to which the respondent agrees that "Having many children is better than being rich". The responses were originally coded from a scale of 1 to 4: strongly agree, agree, disagree, and strongly disagree. The same coding scheme was used for the measure of son preference, for which respondents were asked "Yota aka, ke aka? Yota chora, ke chora?". This roughly translates to "Having only one son is the same as having only one eye." The same coding was used for the attitude about contraceptive use ("It is wrong to use contraceptives or other means to avoid or delay pregnancy"). We have recoded each of these measures so that a 1 indicates 'disagree or strongly disagree' and a 2 indicates 'strongly agree or agree'.

The remaining attitude measure was coded on a 3-point scale. Our measure of the importance that sons work comes from the survey question "How important is it to you that your son find a good paying job? Is it very important, somewhat important, or not at all important?". This measure was recoded so that 1 indicates 'not at all or somewhat important', and 2 indicates 'very important'.

Controls. To properly specify our models, we control for various characteristics of the respondents that may influence both the independent variables of interest and the likelihood of higher parity pregnancy. First, we control for ethnicity. Ethnicity in Nepal is complex, multifaceted, and related to religion. A full description of the ethnic groups residing in this setting is beyond the scope of this paper (for detailed descriptions of these groups see Acharya and Bennet 1981; Bennett 1983; Fricke 1986; Gellner and Quigley 1995; Guneratne 1994; Gurung 1980; MacFarlane 1976). We control for five classifications of ethnicity because of their vastly different propensities to have large families.

We use five dichotomous indicators of ethnicity: high-caste Hindu, low-caste Hindu, Newar, terai Tibeto-Burmese, and hill Tibeto-Burmese. High-caste Hindu status is the omitted category; effects of the other four groups are relative to this group. Next, we include time-varying covariates to control for the respondent's monthly parity status (i.e., whether they have had two or three live births). We also include a monthly time-varying measure of how many boys the respondent has given birth to, as respondents who already have boys may feel less of a desire to continue childbearing. We use another monthly time-varying covariate of respondents' age to control for fecundity. We also control for respondents' age at the time of their first birth, as people who began childbearing at later ages may be inclined to speed their fertility. In order to account for the length of exposure to members of women's current neighborhood we control for the duration of respondents' residence, in years, as of 1996. Finally, in order to control for the duration of the exposure to pregnancy risk we use a control for time, which is the time-varying duration of time since the first monthly interview.

Analytic Method

We use event history methods to model the risk of having a third or fourth pregnancy. Because the data are precise to the month, we use discrete-time methods to estimate these models, and person-months of exposure are the unit of analysis. We consider women to be at risk of a pregnancy after they are married and have two or three children. Women who are experiencing a third pregnancy are removed from the risk set during the nine months prior to a birth and the three months following a birth, while women experiencing a fourth pregnancy are removed completely starting from the ninth month prior to the birth. We use logistic regression to estimate the discrete-time hazard models. Our time-varying measures of respondent characteristics are measured in the month prior to the current month of pregnancy (i.e., lagged by one month). We used multilevel discrete-time survival analysis to estimate our models because of the correlated error structure among women within the same neighborhoods

(Barber, Murphy, Axinn, and Maples 2000). We discuss the results as additive effects on the log odds of pregnancy.

Preliminary Results

Table 2 displays the influence of women's own attitudes on the log-odds of progression to higher parity (third or fourth) births. As expected, we find that women's own family size preference and attitudes about the value of children versus money increase the log-odds of progression to higher parity. Women who prefer larger families and value children over money have higher log-odds of a high parity birth than otherwise similar women.

-Table 2 about here-

Table 3 displays the results for the models in which neighbors' attitudes are added. Two things are immediately striking about Table 3. First, the coefficients linking individuals' attitudes and behavior are remarkably similar in Table 3 to the coefficients for the same measures in Table 2, where neighbors' attitudes were not included in the model. In other words, neighbors' attitudes do not explain the relationship between individual attitudes and behaviors. Second, two measures of neighbors' attitudes are linked to individual behavior, net of the individuals' own attitudes: an indicator of son preference (having only one son is the same as having only one eye), and the importance of a son finding a good-paying job. Women whose neighbors more strongly prefer sons, and prefer high-paying jobs for those sons, have higher odds of a third or fourth birth. In fact, for these measures, neighbors' attitudes are more strongly related to women's behavior than women's own attitudes, and individual attitudes do not have an independent effect.[1]

-Table 3 about here-

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[1] We also ran the models including only neighbors' attitudes. The coefficients for neighbors' attitudes were very similar in models without the corresponding individual attitude measures.

Our final analysis (table 4) adds cohort interactions to the models, investigating two separate, but related, hypotheses: that individual attitudes more strongly influence behavior than neighbors' attitudes in the younger cohorts, and that social pressure from neighbors is weaker in younger cohorts relative to older cohorts. Although we do find that the younger cohort of women tend to respond more to their own attitudes than the older cohort, their own attitudes did not have a greater influence than neighbors' attitudes across the board. In two cases, for the younger cohort, the individually held attitude has a larger coefficient in the model than neighbors' attitude: the one item measure of ideal number of children and the value of children versus money. However, we also see that neighbors have a significant influence on women in the younger cohort in domains regarding son preference and the importance of sons earning money.

-Table 4 about here-

In addition, these analyses reveal that neighbors' attitudes are, in fact, more strongly related to older women's odds of a higher parity birth than to younger women's odds of a higher parity birth. In fact, in the older cohort, *none* of the individuals' attitudes are significantly related to individual behavior. Overall, the results in Table 4 suggest that the influence of individual attitudes is limited to the younger cohort. Furthermore, neighbors' attitudes may be greater among older cohorts, although neighbors' attitudes share influence with individual women's attitudes among the younger cohort of women.

Conclusions

We extend evidence of the well-established link between attitudes and behaviors to this non-western context of rural Nepal. Our results confirm the hypothesis that women who prefer larger families and value children are more likely to progress from having a small family to having a large one: three or more children. Likewise, women who want smaller families are less likely to progress to

higher parity births. In other words, individual desires do affect behavior, in spite of what we know about the influences that other people (e.g., mothers-in-law) exert on women's behavior in this context (e.g., Link 2010).

Women also respond to certain attitudes held by neighbors'. Specifically, neighbors' attitudes indicating son preference and valuing children as earners exert an independent and significant influence. Furthermore, neighbors' attitudes, net of women's own attitudes, do not explain the influence of women's attitudes on their behavior. This supports the hypothesis that women respond to neighbors' attitudes, regardless of what they, themselves, desire. By extension, this does not support neighborhood socialization theory: there is no evidence that women are internalizing their neighbors' attitudes in a way that influences higher parity progression. Rather, neighbors' attitudes in these two domains operate alone to influence women's parity progression—they are independent of and stronger than women's own attitudes. This does support the hypothesis that women respond to social pressure from their neighbors, causing them to conform. Women may be valuing their neighbors' attitudes about the importance of having sons and having sons that earn money, while disregarding their own attitudes about these things.

We uncover more evidence of neighbor influences on higher parity progression when looking at interaction effects with cohort. As hypothesized, the influence of neighbors' attitudes is stronger among older women than among younger women. In addition, younger women adhere to their own attitudes *as well as* their neighbors' attitudes and preferences. This could be a consequence of the rapidly changing social context of Chitwan, Nepal, in which experiences outside of the immediate community have become more accessible (Axinn and Yabiku 2001; Barber 2004) and self-fulfillment has become more important. During their youth and cumulatively throughout their lifecourse, the younger cohort of women has had more exposure to these opportunities and values than the older cohort. Women in the older

cohort, on the other hand, were raised in a context in which people did not have much contact with those outside of their immediate community. Their daily social interactions were more confined to their own neighborhood, probably causing them to pay more attention to their neighbors' attitudes and preferences.

One particularly interesting result is that neighbors' attitudes do not have a significant influence in the domains of ideal family size and the value of children—attitudes that are highly influential at the individual level—when we do not include cohort interactions in our models. Yet, including the interactions reveals that neighbors do, in fact, have an influence in these domains. That influence is limited to the older cohort of women, whereas the younger cohort is responsive to their own attitudes. While, overall (i.e., without interactions), these attitudes appear to have a strong influence at the individual level, a closer look reveals that the influence of attitudes regarding desired family size and value of children may have become more individual and private, over time and across cohorts.

These results indicate that there may have been a recent rise in individualism in South Asia, perhaps particularly in rural areas where people were historically more isolated. Older women—who had less opportunity to be exposed to ideas outside of their neighborhood before entering their reproductive years—tend to be very much influenced by the attitudes of their neighbors. For younger women, the influence of neighbors' ideas and attitudes may have been partially replaced by ideas that come from a rise in education, work outside the home, and travel (Barber 2004). With these changes, social pressure via neighbors may no longer be heeded to the same extent that they were in the past. Instead, women may be more responsive to the social pressure that comes from the media and from the infiltration of Western values. The lesser influence of neighbors among the younger cohort may be a product of the rise of a global community, in which one's immediate surroundings and social interactions are only a fraction of the stimuli to which they are exposed.

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Table 1: Descriptive Statistics				
Measure	**Mean**	**Standard Deviation**	**Minimum Value**	**Maximum Value**
Dependent Variable				
Pregnancy	0.1848	0.388	0.000	1.000
Attitudes*				
Ideal number of children (single item measure)				
Individual, younger cohort	2.141	0.452	1.000	3.000
Neighbor, younger cohort	2.425	0.495	2.000	3.000
Individual, older cohort	2.224	0.507	1.000	3.000
Neighbor, older cohort	2.469	0.501	2.000	3.000
Ideal number of children (Coombs Scale measure)				
Individual, younger cohort	5.707	1.202	4.000	8.000
Neighbor, younger cohort	6.714	0.698	6.000	8.000
Individual, older cohort	5.939	1.336	4.000	8.000
Neighbor, older cohort	6.714	0.608	6.000	8.000
Kids are better than money				
Individual, younger cohort	1.266	0.442	1.000	2.000
Neighbor, younger cohort	1.312	0.464	1.000	2.000
Individual, older cohort	1.313	0.465	1.000	2.000
Neighbor, older cohort	1.340	0.475	1.000	2.000
Having only one eye is the same as having only one son				
Individual, younger cohort	1.471	0.500	1.000	2.000
Neighbor, younger cohort	1.843	0.364	1.000	2.000
Individual, older cohort	1.442	0.498	1.000	2.000
Neighbor, older cohort	1.816	0.389	1.000	2.000
It is Wrong to use Contraception				
Individual, younger cohort	1.527	0.500	1.000	2.000
Neighbor, younger cohort	1.769	0.422	1.000	2.000
Individual, older cohort	1.571	0.497	1.000	2.000
Neighbor, older cohort	1.810	0.394	1.000	2.000
Important Son Find a Good-Paying Job				
Individual, younger cohort	1.721	0.449	1.000	2.000
Neighbor, younger cohort	1.836	0.371	1.000	2.000
Individual, older cohort	1.694	0.462	1.000	2.000
Neighbor, older cohort	1.850	0.358	1.000	2.000
Control Variables				
Cohort	0.253	0.435	0.000	1.000
Bhramin/Chhetri	0.493	0.500	0.000	1.000
Dalit	0.084	0.278	0.000	1.000
Newar	0.055	0.229	0.000	1.000
Hill Indigenous	0.152	0.359	0.000	1.000
Terai Indigenous	0.214	0.410	0.000	1.000
Parity	3.360	0.481	3.000	4.000
Number of boys born	1.231	0.772	0.000	3.000
Number of kids that died	0.116	0.370	0.000	2.000
Respondent's age	28.748	3.901	17.000	34.000
Respondent's age at first birth	20.126	2.770	13.000	30.000
Duration of residence in neighborhood, years	7.880	6.933	0.000	30.000
Time	85.871	42.019	0.000	125.000
Sample Description				
Total persons in sample	580			
Total pregnancies	221			

*Note: Attitudes are coded so that a high value indicates agreement with the statement.

Table 2: Individual Attitudes Logistic Regression for Hazard of Higher Parity Pregnancy (3rd or 4th pregnancy)						
Attitudes						
Ideal number of children (single item measure)	0.453*** (0.137)					
Ideal number of children (Coombs Scale measure)		0.113* (0.055)				
Kids are better than money			0.493*** (0.140)			
Having only one eye is the same as having only one son				0.029 (0.136)		
It is Wrong to use Contraception					-0.193 (0.137)	
Important Son Find a Good-Paying Job						-0.126 (0.144)
Controls						
Low-Caste Hindu	0.467* (0.230)	0.513* (0.230)	0.540* (0.230)	0.543* (0.232)	0.563* (0.232)	0.550* (0.232)
Newar	-0.420 (0.362)	-0.396 (0.362)	-0.331 (0.363)	-0.390 (0.364)	-0.362 (0.365)	-0.384 (0.364)
Hill-Tibeto Burmese	-0.006 (0.228)	0.007 (0.229)	-0.043 (0.229)	0.018 (0.231)	0.040 (0.231)	0.022 (0.231)
Terai-Tibeto Burmese	0.491** (0.167)	0.532** (0.168)	0.528** (0.166)	0.577*** (0.169)	0.624*** (0.170)	0.572*** (0.170)
Parity	-0.103 (0.167)	-0.095 (0.165)	-0.097 (0.166)	-0.068 (0.165)	-0.0600 (0.165)	-0.093 (0.166)
Number of boys born	-0.723*** (0.095)	-0.707*** (0.095)	-0.729*** (0.096)	-0.714*** (0.096)	-0.718*** (0.096)	-0.707*** (0.095)
Number of kids that died	0.604*** (0.152)	0.601*** (0.153)	0.585*** (0.153)	0.604*** (0.154)	0.603*** (0.153)	0.604*** (0.153)
Respondent's Age	-0.043+ (0.025)	-0.044+ (0.025)	-0.037 (0.025)	-0.042+ (0.025)	-0.042+ (0.025)	-0.040 (0.025)
Respondent's Age at First Birth	0.049 (0.033)	0.047 (0.033)	0.055 (0.033)	-0.045 (0.033)	-0.047 (0.033)	0.041 (0.033)
Duration of Residence in Neighborhood	-0.007 (0.011)	-0.005 (0.011)	-0.005 (0.011)	-0.007 (0.011)	-0.008 (0.011)	-0.008 (0.011)
Time	-0.015*** (0.002)	-0.016*** (0.002)	-0.016*** (0.002)	-0.016*** (0.002)	-0.016*** (0.002)	-0.016*** (0.002)
N (person-months)	27787	27787	27787	27787	27787	27787
N (persons)	580	580	580	580	580	580

Note: Estimates are presented as log odds. Reference category for ethnicity is Upper Caste Hindu.
One-tailed tests.   +p< .10   *p<.05   **p<.01   ***p<.001

Table 3: Individual & Neighbor Attitudes Logistic Regression for Hazard of Higher Parity Pregnancy (3rd or 4th pregnancy)

Attitudes		(1)	(2)	(3)	(4)	(5)	(6)
Ideal number of children (single item measure)							
	Individual	0.458*** (0.136)					
	Neighbor	0.196 (0.144)					
Ideal number of children (Coombs Scale measure)							
	Individual		0.114* (0.055)				
	Neighbor		0.117 (0.107)				
Kids are better than money							
	Individual			0.493*** (0.140)			
	Neighbor			0.139 (0.143)			
Having only one eye is the same as having only one son							
	Individual				0.001 (0.137)		
	Neighbor				0.637** (0.206)		
It is Wrong to use Contraception							
	Individual					-0.191 (0.138)	
	Neighbor					0.061 (0.180)	
Important Son Find a Good-Paying Job							
	Individual						-0.154 (0.145)
	Neighbor						0.574** (0.216)
Controls							
Low-Caste Hindu		0.459* (0.230)	0.518* (0.230)	0.534* (0.229)	0.607** (0.229)	0.565* (0.232)	0.471* (0.233)
Newar		-0.484 (0.364)	-0.447 (0.366)	-0.327 (0.363)	-0.366 (0.365)	-0.350 (0.367)	-0.312 (0.366)
Hill-Tibeto Burmese		-0.047 (0.230)	-0.029 (0.232)	-0.049) (0.228)	-0.018 (0.226)	0.031 (0.172)	-0.034 (0.231)
Terai-Tibeto Burmese		0.425* (0.174)	0.478** (0.174)	0.502** (0.168)	0.715*** (0.165)	0.616*** (0.172)	0.597*** (0.168)
Parity		-0.121 (0.167)	-0.096 (0.166)	-0.089 (0.166)	-0.063 (0.170)	-0.063 (0.166)	-0.092 (0.167)
Number of boys born		-0.724*** (0.095)	-0.711*** (0.095)	-0.735*** (0.096)	-0.704*** (0.096)	-0.718*** (0.096)	-0.697*** (0.095)
Number of kids that died		0.624*** (0.153)	0.605*** (0.153)	0.577*** (0.153)	0.559*** (0.155)	0.606*** (0.154)	0.627*** (0.155)
Respondent's Age		-0.041 (0.025)	-0.043+ (0.025)	-0.036 (0.025)	-0.041 (0.026)	-0.042 (0.025)	-0.040 (0.025)
Respondent's Age at First Birth		0.048 (0.033)	0.046 (0.034)	0.057+ (0.033)	0.049 (0.034)	0.047 (0.033)	0.041 (0.033)
Duration of Residence in Neighborhood		-0.007 (0.011)	-0.005 (0.011)	-0.005 (0.011)	-0.007 (0.011)	-0.008 (0.011)	-0.009 (0.011)
Time		-0.015*** (0.002)	-0.016*** (0.002)	-0.015*** (0.002)	-0.016*** (0.002)	-0.016*** (0.002)	-0.016*** (0.002)
N (person-months)		27787	27787	27787	27787	27787	27787
N (persons)		580	580	580	580	580	580

Note: Estimates are presented as log odds. Reference category for ethnicity is Upper Caste Hindu.
One-tailed tests.   +p< .10   *p<.05   **p<.01   ***p<.001

Table 4: Individual & Neighbor Attitudes Logistic Regression with Cohort Interactions for Hazard of Higher Parity Pregnancy (3rd or 4th pregnancy)

Attitudes				
Ideal number of children (single item measure)				
	Individual	0.370* (0.163)		
	Neighbor	0.010 (0.171)		
Ideal number of children (single item measure) * Older Cohort				
	Individual	0.326 (0.288)		
	Neighbor	0.705* (0.308)		
Ideal Number of Children (Coombs Scale measure)				
	Individual		0.102 (0.065)	
	Neighbor		-0.009 (0.121)	
Ideal Number of Children (Coombs Scale measure) * Older Cohort				
	Individual		0.057 (0.118)	
	Neighbor		0.540* (0.021)	
Kids are better than money				
	Individual			0.408* (0.165)
	Neighbor			-0.013 (0.017)
Kids are better than money * Older Cohort				
	Individual			0.337 (0.309)
	Neighbor			0.556+ (0.310)
Controls				
Cohort		-2.694* (1.071)	-4.174* (1.807)	-1.44* (0.651)
Low-Caste Hindu		0.498* (0.232)	0.564* (0.231)	0.524* (0.229)
Newar		-0.462 (0.366)	-0.385 (0.366)	-0.260 (0.365)
Hill-Tibeto Burmese		0.049 (0.235)	0.030 (0.234)	-0.055 (0.230)
Terai-Tibeto Burmese		0.458** (0.178)	0.481** (0.176)	0.497** (0.169)
Parity		-0.159 (0.169)	-0.097 (0.166)	-0.059 (0.167)
Number of boys born		-0.727*** (0.096)	-0.707*** (0.095)	-0.740*** (0.096)
Number of kids that died		0.635*** (0.154)	0.605*** (0153)	0.584*** (0.152)
Respondent's Age		-0.018 (0.033)	-0.025 (0.033)	-0.024 (0.033)
Respondent's Age at First Birth		0.037 (0.033)	0.036 (0.034)	0.054 (0.034)
Duration of Residence in Neighborhood		-0.008 (0.011)	-0.007 (0.011)	-0.005 (0.011)
Time		-0.017*** (0.003)	-0.017*** (0.003)	-0.017*** (0.003)
N (person-months)		27787	27787	27787
N (persons)		580	580	580

Note: Estimates are presented as log odds. Reference category for ethnicity is Upper Caste Hindu. One-tailed tests. +p< .10   *p<.05   **p<.01   ***p<.001

Table 4 cont.: Individual & Neighbor Attitudes Logistic Regression with Cohort Interactions for Hazard of Higher Parity Pregnancy (3rd or 4th pregnancy)

Attitudes				
Having only one eye is the same as having only one son				
	Individual	0.023 (0.160)		
	Neighbor	0.667** (0.252)		
Having only one eye is the same as having only one son * Older Cohort				
	Individual	-0.108 (0.309)		
	Neighbor	-0.117 (0.430)		
It is Wrong to use Contraception				
	Individual		-0.252 (0.159)	
	Neighbor		-0.185 (0.199)	
It is Wrong to use Contraception * Older Cohort				
	Individual		0.283 (0.308)	
	Neighbor		1.109* (0.466)	
Important Son Find a Good-Paying Job				
	Individual			-0.209 (0.167)
	Neighbor			0.481* (0.245)
Important Son Find a Good-Paying Job * Older Cohort				
	Individual			0.152 (0.324)
	Neighbor			0.336 (0.492)
Controls				
Cohort		0.257 (0.948)	-2.643* (1.047)	-1.050 (1.028)
Low-Caste Hindu		0.606** (0.230)	0.540* (0.233)	0.470* (0.233)
Newar		-0.357 (0.365)	-0.275 (0.368)	-0.304 (0.366)
Hill-Tibeto Burmese		-0.014 (0.227)	0.052 (0.235)	-0.011 (0.233)
Terai-Tibeto Burmese		0.720*** (0.166)	0.596*** (0.173)	0.612*** (0.171)
Parity		-0.067 (0.169)	-0.083 (0.166)	-0.102 (0.166)
Number of boys born		-0.705*** (0.096)	-0.736*** (0.096)	-0.701*** (0.095)
Number of kids that died		0.561*** (0.155)	0.620*** (0.155)	0.609*** (0.158)
Respondent's Age		-0.031 (0.034)	-0.021 (0.033)	-0.023 (0.033)
Respondent's Age at First Birth		0.049 (0.034)	-0.021 (0.034)	0.040 (0.033)
Duration of Residence in Neighborhood		-0.006 (0.011)	-0.008 (0.011)	-0.009 (0.011)
Time		-0.017*** (0.003)	-0.017*** (0.003)	-0.017*** (0.003)
N (person-months)		27787	27787	27787
N (persons)		580	580	580

Note: Estimates are presented as log odds. Reference category for ethnicity is Upper Caste Hindu.
One-tailed tests. +p< .10 *p<.05 **p<.01 ***p<.001