Moslem and Non-Moslem Fertility Differences in the Eastern Terai of Nepal

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Introduction

Moslem societies or groups often have higher fertility and lower contraceptive use than do neighboring groups (see, for instance, Kirk, 1968; Weeks, 1988). There is, however, little reason to believe that these differences are rooted in religious dogma (Obermeyer, 1994a, 1994b). The Qur'an does not contain straightforward injunctions against the use of contraception and Moslems do not consistently report that "contraception is against their religion."[1] Using data recently collected in Nepal's eastern Terai, we focus on another possible explanation, i.e., that Islam engenders a more intense form of patriarchy relative to other groups (Caldwell, 1986). Strongly patriarchal gender systems could support higher fertility levels and limit contraceptive use by 1) providing strong motivations for childbearing, and 2) constraining both women's exposure to and ability to implement innovative fertility behaviors. In Nepal, contraceptive use requires innovative behavior. Although 1991 estimates suggest 24 percent of currently married, nonpregnant women (15-49) use contraception, only about 15 years earlier (in 1976) contraceptive prevalence was estimated at three percent (NIV, 1993: 112).

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We explore these explanations using data from three groups in the Eastern Terai of Nepal, within Sunsari District: 1) Moslems residing in three Moslem villages; 2) Mahatos, a Hindu Terai caste traditionally involved in the agricultural production of vegetables; and 3) Tharus, a Terai ethnic group that practices a form of Hinduism that has been influenced by indigenous religious practices. Among the two Hindu ethnic groups, Tharus experienced a unique recent history that serves to disenfranchise them from dominant, caste Hindu groups.[2]

We find clear evidence that Moslems want more children than either Hindu ethnic group. Among women who do not want any more children, Moslems are also less likely to be using contraception. Counter to the explanation above, we find no evidence that these religious/ethnic differences can be explained by a stronger system of patriarchy within the Moslem communities (i.e., by the lower autonomy/power of Moslem women). These results are very similar to those reported by Morgan et al. (1998).

Given the inability of patriarchy to explain the Moslem/non-Moslem difference, we argue that the *minority status* of Moslems "within local, national and global political contexts" (Morgan et al., 1998) likely plays a role. Although Moslems are the third largest religious group in Nepal, they represent a distinct minority, constituting only 3.5 percent of the population (CBS, 1993). The majority population is comprised of Hindus and, to a lesser extent, Buddhists. Tensions between Moslem and non-Moslem religious/ethnic communities may foster segregation, and a preoccupation with cultural identity (Moghadam, 1992). Moreover, our fieldwork suggests that there is a tendency for antinatalist programs and rhetoric to be viewed as an arm of the "state"; an observation that is consistent with the strong presence of government family planning programs in Nepal. Antinatalist interventions are further viewed as extensions of the political and social elite, a group that historically has been comprised of majority group members (Seddon, 1987); family planning programs must, therefore, suit majority group interests, perhaps at the expense of those of minority groups. In such situations, opposition to antinatalist majority interests can become part and parcel of a minority group identity, as groups seek to stake out a domain for themselves that is viewed as both highly important for the continued economic and social success of families, and deeply personnel. This argument has clear implications for the provision of health services to these minority communities.

Group Differences and Fertility

The groups studied here are not simply "religious" groups. Therefore, identifying a single difference among the groups that accounts for fertility differences is difficult. The three groups included in this analysis are ethnic groups with distinct cultural identities, settlement patterns and histories of interactions with the national government (hence, their designation as religious/ethnic groups in this paper). Nonetheless, an important distinction occurs between Moslem and Hindu communities; interaction between these groups is often quite limited, or tends to be focused in certain characteristic domains, for example, trade activities in roadside bazaars.

We will first consider existing arguments in the social and demographic literatures that have been applied very broadly in attempts to explain religious/ethnic differences. Specifically, Caldwell (1986: 175) suggests a global effect of Islam on demographic behavior; his explanation focuses upon gender systems, and the presumption that strongly patriarchal elements of Islamic societies set them apart from other groups. Writing about mortality differentials between Moslems and non-Moslems across a range of countries, Caldwell says: "These mortality differences are not necessarily inherent in religions, nor immutable (as noted below). They are important at present, however. The central aspect of the relationship between Islam and mortality levels is undoubtedly the *separate and distinctive position of women* operating partly through access to education but also in many other ways." (emphasis added)

Although referring to mortality differentials, Caldwell's argument can be extended to fertility. A number of empirical studies have suggested that more extreme forms of patriarchy can retard fertility decline (Dyson and Moore, 1983; Basu, 1992). Patriarchal aspects of family systems, and especially those that may facilitate or impede women's ability to make or influence reproductive choices, have been the focus of much of our recent work (Morgan and Niraula, 1995; Niraula and Morgan, 1996).

In this paper we ask whether selected Moslem communities in the eastern Terai have higher fertility (than non-Moslem ones) because they are more intensely patriarchal. We chose Tharu and Mahato groups as comparisons because both groups are reputed to afford women relatively higher status, i.e., they are less strongly patriarchal. A comprehensive series of anthropological studies on the status of women

in various ethnic groups in Nepal provided a basis for our selection of the Tharu communities (Acharya and Bennett, 1981). In a comparison of eight study sites in Nepal, Acharya and Bennett show that the Tharu setting in western Nepal holds a middle ranking when measures of women's power/autonomy are considered. Mahato communities were chosen based upon the experience of one of the principle investigators,[3] and upon preliminary fieldwork. As a traditional vegetable growing caste, the Mahato utilized the labor of women alongside men. This fact was reputed to increase the status of women relative to other groups, in which the economic roles of men and women were more severely segregated.

Four dimensions of women's power/autonomy were operationalized, adding empirical support for differences in women's status across sampled communities. These four dimensions include, freedom of movement within the village, economic power (i.e., the ability to influence household, economic decisions), economic autonomy (i.e., the ability to make purchases without permission) and freedom from coercive controls (i.e., freedom from fear or abuse from husband). Specifically, we will look to these four measures for support for the hypothesis that women's status mediates the relationship measures between religion and two measures of fertility, i.e., women's desire for additional children and unwanted fertility.

The absence of power/autonomy could limit women's ability to act in innovative ways and could increase the value of children. First, does the Islamic emphasis on modesty, exemplified in the practice of female seclusion or *purdah*, afford women lesser freedom of movement, effectively limiting their ability to implement reproductive choices? It might in a very direct way. If women have substantial freedom of movement (i.e., their movements are monitored less) then they are more free to implement their reproductive choices, for example, through self-motivated visits to health clinics or other providers of contraceptives. If women are required to seek permission from husbands or elders to go to health clinics, it is implicit that women require at least their tacit, if not explicit, approval to use contraceptives. Perhaps more important, constraints on women's mobility can limit exposure to ideas external to the group. Constraints on people's exposure to ideas, and particularly novel ideas or technological innovations, could pose barriers to the introduction and spread of modern methods of contraception.

Patriarchal systems can also increase the demand for children because they usually limit women's nonfamilial opportunities for social status and economic support. These constrained options (indicated by low

economic power or autonomy) focus women's attention on family and children. Women's well-being in such settings is heavily dependent on children to establish status with the family and to provide support in old age (Cain et a.l., 1979; Cain, 1984).

Ongoing analyses by Morgan, Stash, Mason and Smith (1998) address these same questions for selected communities in four South Asian countries: India, Malaysia, the Philippines, and Thailand. The Morgan, et al. data come from the Status of Women and Fertility Project (SWAF, Mason and Smith and primary investigators Jejeebhoy, Sathar, Chayovan, Nagaraj, and Raymundo). The SWAF project was designed to test how variation in women's power/autonomy influences fertility behavior. Work reported here links closely to the SWAF project, adopting both their sampling strategy and a number of their survey instruments. Thus, we have the opportunity to compare results for these Nepali communities with those surveyed in the SWAF countries. The Morgan et al. results provide no evidence for the first hypothesis above, i.e., that more extreme patriarchy can explain the higher fertility of Moslem communities. Specifically, Morgan et al. do generally find evidence of higher fertility in Moslem communities. Moslems report more children ever born and surviving. Moslems, in most settings, are also more likely to say that they want more children. Finally, if they want no more children, Moslems are uniformly less likely to be using contraception. But these differences are not attenuated by statistical controls on measures of wives' power or autonomy. Only on measures of freedom of movement did Moslem wives consistently score below non-Moslems (also see Mason et al., 1997). These freedom of movement measures were not a powerful and consistent predictor of any of the fertility measures. Similar results for these Nepal settings would further challenge the claim that Moslem/non-Moslem fertility differences emanate form the "separate and distinctive position of women" in Moslem communities.

Given the inability of differences in wives' power/autonomy to explain the pervasive Moslem/non-Moslem fertility differences, Morgan et al. offered a post-hoc explanation that emphasizes the political insecurity of Moslem populations. These explanations are related to the concept of a *minority group status effect* that has a long history in fertility research (see Goldscheider and Uhlenberg, 1968; Day, 1968). The minority group status effect can be pro- or antinatalist depending upon opportunities available to the group and need not apply only to populations that are minorities within a given political entity. Morgan et

al. cite Moghadam (1992) who argues that political opposition to Islam, on global and local scales, and social change accompanying development, engender a preoccupation with Islamic identity that strengthens patriarchal identity. Such a Moslem community response could generate and sustain pervasive differences in fertility norms and in behavior. Morgan et al. argue that such a group response could influence motivation to control fertility and the accessibility and acceptability of using contraception. This argument resonates with some of our observations and with interviews.[4] We will return to this evidence in the paper's discussion section.

Finally some have argued against the notion that there is anything consistently different about Moslem's desire for children or their receptivity to contraceptive use (see, for example, Weeks, 1988). Instead, they argue, group differences can be traced to characteristics associated with being Moslem, such as greater poverty or living in less economically developed communities. We explore a number of these "characteristics" hypotheses in the analyses that follow.

Data

As noted earlier, we collected our data so that it would be comparable to data collected in the Status of Women and Fertility (SWAF) study. Karen Mason and Herb Smith designed and organized SWAF; their principal collaborators were Napaporn Chayovan (Thailand), Shireen Jejeebhoy (India), Shyamala Nagaraj (Malaysia), Corazon Raymundo (Philippines), and Zeba Sathar (Pakistan). The SWAF study was designed to examine the links between patriarchal institutions, women's autonomy/power and fertility/family behavior. The primary mode of data collection was sample surveys, and the country investigators matched the survey content as closely as possible to allow cross-country comparisons.

These surveys were not designed to be representative samples of the respective countries or any specific region/group within these countries. Instead the goal was to select village/community settings with sharply contrasting sociocultural systems. Country investigators selected representative samples of households, and married women and their husbands from these places. This strategy maximizes variation in sociocultural setting so that the effects of this variation in "setting" or "context" could be tested. The available data across diverse settings, both within and across countries, provides an opportunity to test the robustness of the association and to examine possible sources of variability. The

inferential power comes from an exploration of the association across diverse settings, not from generalizations to the population from which the sample was drawn.

We collected our data in early 1997 in Sunsari District (the eastern plains, or Terai). We chose three religious/ethnic groups: 1) Moslem, 2) Mahato, and 3) Tharu. We collected data in eight locations. We attempted to interview roughly 100 married women from each religious/ethnic group in three different communities. Table 1 shows the number of wives interviewed by research site. These married women provide all data analyzed in this paper.

As noted earlier, Mahatos and Tharus consider themselves to be Hindu. These ethnic groups were chosen for comparison, and we expected from the outset that wives in these communities would have relatively high power/autonomy compared to Moslem wives. Our central aim is to explore the consequences of such differential levels of power and autonomy. To further facilitate comparison, these settings were chosen to minimize differences on other community characteristics.

Table 1 Study sites and sample sizes for wives

Religious/Ethnic Group and Location	Number of Wives Interviewed
Moslem	334
Devangunj	122
Bhutaha	108
Bhokraha	104
Mahato	345
Kaptangunj	121
Devangunj	141
Inaruwa	83
Tharu	313
Dumraha	123
Shivanagar	(190)
Sainimeini	(190)

The overwhelming factor that these areas have in common is pervasive poverty. As a result women perform such activities as selling goods at the local market, working for wages and participating in both agriculture and brick industries. A second unifying characteristic of these ethnic groups is that all of them practice *purdah*, or female seclusion. Although, at first glance, this may seem counter to our selection criteria (i.e., to choose communities where women's position varied substantially), the practice of *purdah* varies considerably across these

religious/ethnic groups. There is also variation in the extent to which *purdah* is practiced within religious/ethnic groups, by community and by household wealth.

As our data demonstrate, despite variation in the practice of *purdah*, Moslem wives do have more restrictions placed upon their freedom of movement. However, it is only within the wealthiest compounds that wives remain secluded within their compounds. The spatial orientation of households in these villages is also related to the practice of *purdah.* In every village houses are constructed around an inner square. Additional walls offer greater seclusion to the inner courtyard, especially in Moslem clusters. Additional similarities in these villages include the lack of electricity and running water. Other forms of community infrastructure, i.e., the presence and staffing of schools, health posts and agricultural extension services, are fairly consistent across communities.

Analysis

Our analytic strategy is the classic "elaboration model." We begin by establishing that an association exists between religion/ethnicity and relevant fertility measures. Table 2 shows the percent pregnant, the percent who want more children, and the percent at risk of an unwanted pregnancy stratified by religion/ethnicity. We predicted that Moslem wives would desire more children and, if they wanted no more children, would nevertheless be less likely to use contraception. This association is readily apparent: 37.5 percent of Moslem wives want more children compared to 24.6 percent and 22.5 percent for Mahato and Tharu wives. Women are considered to be at risk of an unwanted birth if they are not currently pregnant, they say that they do not desire any additional children, and they are not currently using a method of family planning. Clear differences emerge that confirm our expectations. Nearly 70 percent of Moslem wives were at risk of an unwanted pregnancy compared to 30.6 percent and 41.6 percent of Mahato and Tharu wives.

In additional analyses, we will attempt to explain these differences in the desire for children, and the risk of unwanted births by taking into account measures of women's power/autonomy. If variation in wives' power/ autonomy mediates or "explains" these associations then statistical controls on wives power/autonomy will attenuate the original association (between religion/ethnicity and fertility measures). In effect, once the level of power/autonomy is taken into account statistically, we expect evidence of a weaker association between religion and the fertility

Table 2 Percent pregnant, percent wanting more children, and the percent at risk of an unwanted pregnancy: By religion/ethnicity

Religion/Ethnicity	Percent pregnant	Percent want more children	Percent at risk of unwanted pregnancy
Mahato	8.1	24.6	30.6
(N)	(345)	(317)	(229)
Moslem	12.3	37.5	69.6
(N)	(334)	(293)	(168)
Tharu	6.1	22.5	41.6
(N)	(313)	(294)	(209)
Chi-square (df)	8.2 (2)	19.5 (2)	61.4 (2)
P	p=.017	p=.000	p=.000

outcomes. In order for power/autonomy to have such an effect 1) power/autonomy must vary substantially by religion/ethnicity, and 2) power/autonomy must be associated with the fertility outcomes.

We now turn to the first question: Does power/autonomy vary by religion and ethnicity? As noted earlier, we consider four aspects of wives' autonomy: freedom of movement, economic power, economic autonomy, and measures of coercion by their husbands. Tables 3-6 show differences across these three ethnic groups on these measures. Results show that, as expected, Moslem wives tend to score lower on these dimensions of power/autonomy than do Mahato and Tharu wives. We will now briefly consider each measure of women's power/autonomy.

Our survey included a set of questions asking where wives could "go alone".[5] Given the sharp and consistent religious/ethnic differences across these items, and consistent with our expectation based on earlier work (Niraula and Morgan, 1996), we have constructed a simple additive scale for freedom of movement. Specifically we combine responses to questions regarding traveling to the market, the health post, and the next village. The distribution for this scale measure is shown by religion/ethnicity in Table 3. Thirty-four percent of Moslem wives can go to at most only one of the three places considered, as compared to 13 and 18 percent of Tharu and Mahato women, respectively. Judging from this index, Tharu and Mahato women have comparable levels of freedom of movement while Moslems score much lower.

Table 4 shows responses to questions intended to measure wives' economic power. The first question asks whether wives have a say in how the overall household income is spent; the second question asks whether the respondent would be able to support herself without her husband.

Table 3 Freedom of movement index (i.e., sum of "yes" responses to "can go alone to" the market, the health post and the next village) by ethnicity/religion

Index Score	Mahato	Moslem	Tharu
0	7.8	23.7	10.6
1	4.9	10.5	7.1
2	60.9	47.8	39.4
3	26.4	18.0	43.0
Total	100.0	100.0	100.0
N	345	333	312

Chi square 93.0 (6 df), p=.000

Both items vary significantly across religious/ethnic groups. Most wives, regardless of group, claim a say in how household income is spent. But Moslem wives are less likely to make such a claim compared to the other groups. To the second item, Mahato and Moslem wives are much less likely to say that they could support themselves compared to Tharu wives.

Table 4 Percent responding "yes' to questions regarding women's economic power by ethnicity\religion

Item	Mahato	Moslem	Tharu	Chi-square (df) and p
Say in household income	93.6	87.1	92.7	10.2 (2); p=.006
(N)	(345)	(334)	(313)	
Support self	69.3	66.9	83.8	27.1 (2); p=.000
(N)	(345)	(332)	(309)	

In subsequent analyses we use the first item because responses to this item are more likely based on actual behavior or experience. Informal interviews with wives in this area indicated that they had difficulty responding to hypothetical questions such as "in the absence of your husband, could you... "

Our data include responses to questions regarding wives' ability to purchase certain items on their own; presumably, these items capture an aspect of wives' economic autonomy. Table 5 shows the index of economic autonomy that we use in subsequent analyses. Responses to questions regarding the purchase of saris, spices, and utensils compose this additive index.[6] As shown, Tharu wives have the highest level of economic autonomy, followed by Mahato wives, and then by Moslem wives.

Table 5 Index of economic autonomy (i.e., sum of "yes" responses to questions regarding buying sari, spices and utensils) by ethnicity/religion

Economic Autonomy Index	Mahato	Moslem	Tharu
0	54.0	71.2	47.3
1	13.2	10.1	14.2
2	12.3	12.0	13.5
3	20.5	6.8	25.1
Total	100.0	100.0	100.0
N	341	326	311

Chi square 53.3 (6 df); p=.000

Table 6 shows differences among the ethnic/religious groups in responses to questions about coercive relations with husbands. The groups do not differ significantly in the likelihood of stating that they are "afraid to disagree with their husbands". However, differences are found in responses to the question asking if the husband "beats the wife"; Moslem wives are significantly more likely to report that they have been beaten by their husbands.[7]

In summary, Moslem wives have substantially less power/ autonomy than do Mahato and Tharu wives. Available information suggested that this would be the case prior to our work, and it was for these reasons that we chose these particular groups. We are now well-positioned to address

Table 6. Percent responding "yes" to questions regarding women being "beat by husband" by ethnicity/religion

Item	Mahato	Moslem	Tharu	Chi-square (df) and p
Afraid to disagree with husband	33.0	31.7	30.2	0.6 (2); p=.74
(N)	(333)	(312)	(291)	
Husband beats wife	31.1	42.3	13.6	60.9 (2); p=.000
(N)	(338)	(312)	(294)	

the central question of this analysis: Are differences in women's power/ autonomy sufficient to account for differences between Moslems and non-Moslems in their fertility behavior? In subsequent sections of this paper, we will present multivariate analyses designed to address this question.

Before turning to those analyses, we discuss briefly additional variables that may contribute to the bivariate association between religion/ethnicity and the fertility variables. Table 7 presents evidence

regarding a range of variables that have previously been demonstrated to affect fertility behavior, and that could potentially vary systematically across the three groups considered.

Our analysis shows that Moslem wives have less education, lower household income and live in households with fewer material possessions than wives in the other groups.[8] Low education and greater poverty are frequently correlated with fertility variables.

We also consider two measures of family and household structure. Basu (1992) suggests that wives who are married to household heads, and who are therefore afforded higher status, will act more autonomously than other daughters-in-law, resulting in their greater ability to implement their reproductive choices, including their desire to limit childbearing. Previous research (Dyson and Moore, 1983) also suggests that, due to more favorable norms and/or greater support from natal homes, wives whose husbands are relatives may have greater power/autonomy, also resulting in their greater ability to implement their reproductive choices.

Table 7 Distributions on selected factors by ethnicity/religious differences

Selected Factors	Mahato	Moslem	Tharu
Education			
No formal schooling	82.3	93.1	85.9
1-4 years	3.5	3.3	4.8
5+ years	14.2	3.6	9.3
Family wealth/SES			
Low income	35.8	38.9	24.8
Mid income	26.2	34.7	39.9
High income	38.1	26.4	35.4
Possession index mean	1.4	1.0	1.2
Previous fertility (children ever born)			
0	8	10	5
1	11	11	16
2	13	14	21
3	21	14	21
4	17	10	16
5	15	11	12
6	9	11	5
7-13	7	18	4
Mean surviving			
Boys	1.6	1.7	1.5
Girls	1.5	1.6	1.4
Family/household structure			
Wife of household head	63.5	56.9	62.3
Wife and husband related	0.6	16.3	0.3

Finally, we control on number of surviving children to ensure that the greater demand for additional children or lower levels of contraceptive use did not result from Moslem's lower fertility (or higher infant mortality) to date. This is clearly not the case, Moslem wives have higher mean numbers of surviving children (both sons and daughters). In the analysis that follows we represent surviving children by a linear scoring of the number of sons and daughters, and by additional contrasts for those with two or more sons and for those with at least one daughter.

Table 8 shows the key findings with respect to the desire for more children. The first column shows the bivariate association. Moslems are 2.08 times more likely to desire more children than are Tharu wives;

Table 8 Effects (odds ratios) of ethnicity/religion on desire for more children: Control on potential intervening variables

Selected Factors	Model (1)	Model (2)	Model (3)
Ethnicity/religion			
Moslem/Tharu	2.08**	4.39**	6.55**
Mahato/Tharu	1.12	2.01*	2.25**
Age of woman			
(Age-28)		.98	.97
(Age-28) squared		1.00	1.00
Education			
Years (1-4/0)		.58	.70
Years (5/0)		1.22	1.13
Family/household structure			
Eligible respondent/wife		.98	.86
Eligible respondent and husband related		1.32	.95
Number of sons/daughters			
Number of sons		.14**	.14**
At least two sons		.66	.53
Number of daughters		.56**	.53**
At least one daughter		.24**	.23**
Family income/wealth			
Middle/low income		1.53	1.32
High/low income		1.54	1.16
Household possessions		.85	1.12
Freedom of movement index			.99
Economic power "Say in income"			1.26
Economic autonomy index			.98
Coercion "Husband beats wife"			.72
Constant	3.46**	11.7**	14.3**
Log likelihood	-527.34	-254.03	-229.51
N	904	856	799

*significant at .05; **significant at .01.

the difference between Mahato and Tharu (a factor of 1.12) is small and not statistically significant. Model 2 introduces controls for age, education, income, and previous fertility. Despite strong effects of previous fertility, these controls actually increase the religion/ethnic differential, rather than attenuate it. Net of these factors Moslems are estimated to be 4.39 times more likely to desire additional children than are Tharu wives. A Mahato/ Tharu difference emerges with these controls; Mahato wives are 2.01 times more likely to want another child than are Tharu wives.

Model 3 tests the central expectation of this analysis, i.e., once group differences in wives' power/autonomy are controlled, the religion/

Table 9 Effects (odds ratios) of ethnicity/religion on being at risk of an unwanted pregnancy: Controls on selected variables

Selected Factors	Model (1)	Model (2)	Model (3)
Ethnicity/religion			
Moslem/Tharu	3.2	3.16**	3.09**
Mahato/Tharu	.6	.63*	.57*
Age of woman			
(Age-28)		1.00	.99
(Age-28) squared		1.00	1.00
Education			
Years (1-4/0)		1.02	1.01
Years (5/0)		1.70	1.49
Family household structure			
Eligible respondent/wife		.76	.64*
Eligible respondent and husband related		.76	1.22
Number of sons/daughters			
Number of sons		1.42**	1.42**
At least two sons		.37**	.38**
Number of daughters		1.21*	1.24*
At least one daughter		.63	.63
Family income/wealth			
Middle/low income		1.08	.97
High/low income		.90	.86
Household possessions		.97	1.00
Freedom of movement index			1.40**
Economic power "Say in income"			2.33*
Economic autonomy index			.94
Coercion "Husband abuses wife"			1.17
Constant	.7	.74	5.4**
Log likelihood	-386.0	-353.32	-333.47
N	606	571	549

*significant at .05; **significant at .01

ethnicity association (with the desire for more children) will weaken. Model 3 simultaneously includes all four dimensions of women's power/autonomy. These variables do not attenuate the association because they are not strongly associated with the desire for more children, and none of the associations achieve statistical significance. Thus, Model 3 does not provide evidence that women's greater power/autonomy reduces their demand for children; therefore, it provides no evidence that power/autonomy mediates the association between religion/ethnicity and women's desire for additional children. Regardless of women's individual level of power/autonomy, Moslem women demonstrate a greater desire for children than Hindu women, from either ethnic group.

Table 9 allows tests that closely parallel the ones above. This second analysis tests whether differences in power/autonomy explain the higher likelihood that Moslem wives are at risk of an unwanted pregnancy (compared to the non-Moslem groups). As in the previous table, Model 1 shows the bivariate association, Moslem wives are 3.22 times more likely to be at risk than are Tharu wives; Mahato wives are least likely (.62 as likely as Tharu wives). Neither the control variables added in model 2, or the measures of power/autonomy added in model 3, attenuate the association of religion/ethnicity to the risk of an unwanted pregnancy. Note that several of the power/autonomy measures have significant effects, but these effects are inexplicably positive.[9] Clearly, there is no evidence here that power/ autonomy *reduces* the risk of an unwanted pregnancy.

Discussion and Conclusion

The contrasts of Moslems, Tharus and Mahatos in eastern Nepal do show that Moslem wives have less power/autonomy than do those in other groups. But counter to our primary hypothesis, these power/autonomy differences cannot explain religious/ethnic differences in the demand for children or in the risk of an unwanted pregnancy. These results are very similar to those from the SWAF data for India, Malaysia, the Philippines, and Thailand (Morgan et al., 1998). Together these results confirm a consistent Moslem/non-Moslem difference on these fertility variables, but they leave open the question of what accounts for these differences.

As noted earlier, Morgan et al. (1998: 23-24) offer a post-hoc explanation: "Political opposition to Islam, on global and local scales, and social change accompanying development engender a preoccupation

with Islamic identity that strengthens patriarchal ideology. ... Reaffirmation of Islam and the resultant preoccupation with cultural identity may foster pronatalism that–although not exclusive to the Islamic religion–is germane to contemporary Moslems' experience in (South Asia). Such a Moslem community response could generate and sustain pervasive differences in fertility norms and in behavior, resulting in observable differences in fertility levels."

This argument resonates with some observations made in our study sites. Specifically, Moslems in these communities hold the opinion that Hindu and Buddhist majority groups are not supportive of Moslem ideas, beliefs, and needs (Neidell, fieldwork, 1997). A common response in the survey area is that "they won't even fund our schools." Such group animosity may lead Moslems to disregard messages regarding family planning, as an arm of the "Hindu" state, and indeed Nepal is the only self-proclaimed Hindu Kingdom in the world. Family planning activities may be viewed as a directive emanating from majority religious/ethnic groups, and suited to their own desire to perpetuate political and social dominance. In other words, fieldwork suggests that Moslems view family planning programs as an attempt for Hindu/Buddhist majority groups to regulate even the most central aspects of their family life. Resistance to this form of social influence is the likely outcome.

Routinized resistance to use family planning services can further function as a marker of group identity. These behaviors can become routinized in village communities because the use of family planning services easily becomes common knowledge within tightly knit social networks. This may be especially true because the majority of contraceptive use in Nepal consists of permanent sterilizations, that require surgery and recuperation, and that are typically provided through mobile camps and in some fixed-site clinics in major centers. High visibility allows for strong community sanctions and, therefore, strong community social control. Moreover, surreptitious use becomes unlikely. The family planning clinic–and its non-Moslem health workers–become symbols of "them"; daily nonuse reaffirms "us", and a distinctive group identity. Several Moslem leaders in these communities clearly stated that the family planning emphasis of the health posts was an unwarranted and unnecessary intrusion in their community. Our discussions of family planning issues with Moslem community leaders were often uncomfortable and markedly strained. (Also see Jeffery and Jeffery, 1997: 242-243).

To the extent that our survey was considered an "arm of the state", the dynamics discussed above could exaggerate the differences we observed. One Moslem respondent told Neidell (field notes) that she would like to be sterilized, but in order to do this she would need to return to her natal home in Biratnagar, a sizeable city. The anonymity of the city, and its distance from her current residence, permitted her greater privacy. This example reminds us that Moslems can demonstrate solidarity by making pronatalist statements to outsiders. In other words, there is some reason to suspect that Moslems may under report the use of contraceptives.

As an addendum, from the outset we expected that Tharu people, as an ethnic group whose recent experiences have left them external to and mistrustful of the state, might similarly resist antinatalist government interventions. The evidence presented in this analysis suggests that, on average, the fertility behavior of Tharus differs little from that of Mahato people. However, these two ethnic groups share important similarities, that lend commonality to their experiences, and that distance both groups from majority political, social and economic structures. In addition to their joint practice of Hinduism, Mahatos and Tharus are both indigenous Terai ethnic groups – groups that remain largely external to the high caste Hindu ethnic groups that exert considerable influence in Nepalese government and other aspects of social life.[10]

In conclusion, we would like to make three points: First, our demonstration that religion/ethnicity strongly influences fertility will be interpreted by some as a suggestion that Moslem fertility will not fall or will always be higher than that of non-Moslems. Such an interpretation rests on outdated notions of culture as static, or at least highly resistant to change. Obermeyer (1994a, 1994b) argues strongly that Islam is open to various interpretations regarding the roles of women and the acceptability of contraception. The dominant Moslem position on these issues is not immutable; thus, neither are the pronatalist effects we suggest. Secondly, while similar, Moslem communities in this study are different in some respects. Specifically, Moslem fertility and Moslem wives' autonomy/ power are not identical across all communities. This fact, not exploited in the current paper, reinforces our first point, allowing for community specific dynamics that could account for these differences. We will explore these differences more thoroughly in subsequent work. Finally, our study has a practical lesson. We argue that the higher risk of unwanted pregnancy is not the result of Islam *per se,* but the result of unfavorable inter-group dynamics, routed in a more fundamental social

discord. It is an unfortunate reality that those who provide services to this and other minority populations in this diverse country will have to come to grips with the suspicions of their client populations if they are to effectively meet their needs. We recognize that this is not an easy task.

Notes

1 Sterilization might be considered an exception. Direct injunctions, fatwas, against sterilization have been issued by Islamic jurists but opposition to sterilization is not unanimous.

2 During the later half of the twentieth century, Tharus throughout the Terai lost the majority of their traditional lands to migrants from the north. This migration occurred as a result of planned economic development strategies that promoted the resettlement of the Terai by migrants from the more densely populated, and less agriculturally productive hill areas (Guneratne, 1996).

Tharus posed little threat to these government resettlement programs, and they were divested of the major portion of their land-holdings in short order. Indebtedness has been posited to be the principal factor explaining the decline of landownership among the Tharu, although alcoholism and gambling were also contributing factors (Guneratne, 1996).

3 Bhanu Niraula's familiarity with the area and his preliminary fieldwork suggested the Mahato as an appropriate comparison group.

4 Shara Neidell has conducted intensive fieldwork in both Moslem and non-Moslem fieldsites.

5 In addition to the three items included in the scale, women were asked if they could go alone to: fields outside the village, public place, visit a friend, a temple, the cinema, a bank, or a club.

6 Other items in the set, but not included in the index, were: food grains, clothes, sandals, and jewelry. Only one item in this set failed to show greater economic autonomy for non-Moslem wives. This exception is "buying jewelry" – Moslem wives are much more likely to say that they can purchase jewelry. This item is a "special case" because 1) Moslem women sell glass bangles at the weekly markets; these inexpensive glass bangles could be interpreted as jewelry. 2) Moslem women tend to wear silver bracelets (rather than gold) making their purchase less important.

7 This result certainly deserves more study. Comparisons of Moslems and non-Moslems using the SWAF data did not provide any evidence of greater physical coercion among Moslems.

8 Education is measured from a report of years of schooling completed. Household income is calculated by summing income from all sources; this variable is used to create three contrasts (low, medium and high). The possession index is a sum of specific consumer items found in the household.

9 We have not explored possible reasons for this unexpected result. We will do so in subsequent work.

10 Resettlement programs to the Terai encouraged the migration of hill people from both high caste and hill ethnic groups. However, in part because government settlement programs in the Terai have historically favored high caste groups with grants of more productive land, high caste Brahmins and Chhetris constitute a socioeconomically advantaged group in much of the Terai today. Hill ethnic migrants occupy a middle strata of Terai society, owning land in many parts of the Terai, but occupying fewer positions of social, political and economic leadership than do high caste people. Indigenous populations remain among the least advantaged sectors of Terai society in contemporary Nepal (Ghimire, 1992; Seddon, 1987; Stash, 1997).

References

Acharya, Meena and Lynn Bennett. 1981. *The Status of Women in Nepal.* Rural Women of Nepal: An Aggregate Analysis and Summary of Eight Village Studies. Vol 2. Part 9. Kathmandu: Center for Economic Development and Administration, Tribhuvan University.

Basu, Alaka M. 1992. *Culture, the Status of Women and Demographic Behavior.* Oxford: Clarendon Press.

Cain, Mead. 1984. "Women's status and fertility in developing countries: Son preference and economic security." *Working Paper* No. 110. New York: The Population Council, Center for Policy Studies.

Cain, Mead, Syeda Rokeya Khanam, and Shamsun Nahar. 1979. "Class, patriarchy and women's work in rural Bangladesh." *Population and Development Review* 5: 405-438.

Caldwell, John C. 1986. "Routes to low mortality in poor countries." *Population and Development Review* 12: 171-220.

CBS. 1993. *Statistical Yearbook of Nepal 1993.* Kathmandu: Central Bureau of Statistics (CBS).

Day, Lincoln H. 1968. "Natality and ethnocentrism: Some relationships suggested by an analysis of Catholic-Protestant differentials." *Population Studies* 22: 27-50.

Dyson T. and M. Moore. 1983. "On kinship structure, female autonomy and demographic behavior in India." *Population and Development Review* 9: 35-60.

Ghimire, Krishna. 1992. *Forest or Farm? The Politics of Poverty and Land Hunger in Nepal.* Delhi: Oxford University Press.

Goldscheider, Calvin and Peter R. Uhlenberg. 1968. "Minority group status and fertility." *American Journal of Sociology* 74: 361-372.

Guneratne, Arjun. 1996. The tax man cometh: The impact of revenue collection on subsistence strategies in Chitwan Tharu society." *Studies in Nepali History and Society* 1: 5-35.

Jeffery, Roger and Patricia Jeffery. 1997. *Population, Gender and Politics.* Cambridge: Cambridge University Press.

Kirk, Dudley. 1968. "Factors affecting Moslem natality." In *Population and Society.* Ed. Charles B. Nam. Boston: Houghton Mifflin.

Mason, Karen Oppenheim, S. Philip Morgan, and Herbert L. Smith. 1997. "Moslem women in non-Islamic countries of Asia: Do they have less autonomy than their non-Moslem neighbors?" Draft manuscript.

Moghadam, V. 1992. "Patriarchy and the politics of gender in modernizing societies undergoing development and social change: Iran, Pakistan and Afghanistan." *International Sociology* 7: 35-53.

Morgan, S. Philip and Bhanu B. Niraula. 1995. "Gender inequality and fertility in two Nepal villages." *Population and Development Review* 21: 541-561.

Morgan, S. Philip, Sharon Stash, Karen Mason, and Herbert Smith. 1998. "Religious differences in the desire for children and in contraceptive use: Moslem and non-Moslem differences in India, Malaysia, Thailand and the Philippines." Paper presented at the 1998 meeting of the Population Association of America, April 2-4, Chicago, IL.

NIV. 1993. *Nepal Fertility and Family Planning and Health Survey 1991: Main Report.* Kathmandu: New ERA, IIDS, and Valley Research Group (NIV) Joint Ventures.

Niraula, Bhanu B. and S. Philip Morgan. 1996. "Marriage formation, post-marital contact with natal kin and the autonomy of women: Evidence from two Nepali settings." *Population Studies* 50: 35-50.

Obermeyer, Carla M. 1994a. "Reproductive choice in Islam: Gender and State in Iran and Tunisia." *Studies in Family Planning* 25: 41-51.

Obermeyer, Carla M. 1994b. "Religious doctrine, state ideology, and reproductive options in Islam." In *Power and Decision: The Social Control of Reproduction.* Eds. Gita Sen and Rachel C. Snow. Cambridge, MA: Harvard University, Center for Population and Development Studies.

Seddon, David. 1987. *Nepal: A State of Poverty.* New Delhi: Vikas Publishing House.

Stash, Sharon. 1997. "The dynamics of fertility decision-making among wives and their husbands in Chitwan, Nepal." Ph.D. dissertation. Ann Arbor, MI: University of Michigan.

Weeks, John R. 1988. "The demography of Islamic nations." *Population Bulletin* Vol. 43, No. 4. Washington, DC: Population Reference Bureau.

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