

# HUSBANDS' VERSUS WIVES' FERTILITY GOALS AND USE OF CONTRACEPTION: THE INFLUENCE OF GENDER CONTEXT IN FIVE ASIAN COUNTRIES\*

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*Using data from Pakistan, India, Malaysia, Thailand, and the Philippines, we explore how gender context influences (1) husband-wife concordance in the demand for children and (2) the impact of each spouse's fertility preferences on contraceptive use. We also explore whether the husband's pronatalism can explain the wife's unmet need for contraception. The results suggest that gender context has little net effect on couples' concordance, but influences the relative weight of husbands' and wives' preferences in determining contraceptive use. Analysis of women's unmet need for contraception suggests that the husbands' pronatalism contributes to wives' unmet need, but only to a relatively small degree, especially in settings where unmet need is high. This is the case because the proportion of couples with differing fertility goals is small in most communities.*

I ncreasing evidence shows that women's autonomy and power help to reduce fertility, at least when other conditions favor this change (Amin et al. 1994; Balk 1994; Basu 1992; Cain 1993; Dharmalingam and Morgan 1996; Hashemi, Schuler, and Riley 1996; Jejeebhoy 1991, 1995; Kritz and Makinwa-Adebusoye 1995; Malhotra, Vanneman, and Kishor 1995; Mason 1997, 1998; Morgan and Niraula 1995; Schuler and Hashemi 1994). The mechanisms that mediate this relationship are less clearly understood, however. In particular, researchers have not explored the extent to which gender stratification influences agreement between spouses and their use of birth control. Does a gender system that gives women little autonomy encourage high fertility by causing both wives and husbands to want large families? Or does it cause husbands to want large families and give them the power to enforce their desires? Alternatively, does gender stratification support high fertility not by influencing fer-

tility desires, but rather by making couples less able to communicate about and hence to adopt effective birth control?

In this paper we focus on how gender systems influence agreement between husbands and wives about having additional children, and on the relative weight of husbands' and wives' fertility preferences in determining whether contraception is used. We also examine whether husbands' fertility preferences can explain the nonuse of contraception by wives who say they want no more children—the so-called unmet need for contraception. The topic of husband-wife agreement about fertility and contraception has long interested demographers (Hollerbach 1983). No study to date, however, has systematically explored how it is influenced by gender context. In the current paper, to investigate this process, we use survey data collected in a series of south and southeast Asian communities that have different gender traditions.

## THEORY

One reason why women who say they want no more children may nonetheless fail to protect themselves from pregnancy is their husbands' desire to have additional children. This idea was tested in studies conducted during the 1960s and early 1970s, with mixed results (Beckman 1983; Hull 1983), but was largely ignored in the 1980s. In the 1990s, however, researchers renewed their attention to the issues of spousal agreement about fertility preferences and what determines husbands' and wives' relative decision-making power regarding fertility (Bankole 1995; Bankole and Singh 1998; Biddlecom, Casterline, and Perez 1997; Casterline, Perez, and Biddlecom 1997; Ezeh 1993; Lasee and Becker 1997). It is especially timely to reexamine these topics that explicitly address how gender context influences husband-wife decision making, given the evidence that women's empowerment promotes contraceptive use and fertility decline.

Which social contexts are most likely to create spousal disagreement about fertility? And which contexts are most likely to generate nonuse of contraception because husbands want more children than wives want and are able to enforce their wishes? Although it seems likely that more extreme forms of gender stratification will enhance the husband's control over the decision to use contraception, it is less clear that gender stratification will promote high levels of husband-wife agreement about fertility goals.

One common hypothesis is that "traditional" social contexts enhance agreement because both husband and wife are likely to have high fertility goals or a fatalistic attitude about childbearing. This characterization of "traditional"

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society, however, is of dubious relevance for most of Asia in the 1990s, where knowledge of contraception is widespread, fertility desires are decreasing, and an unquestioning acceptance of unlimited fertility is rapidly dying out (Tsui 1996). Husband-wife agreement about fertility goals nevertheless may be greater in more gender-stratified settings for two reasons: either because women's opinions are influenced strongly by their husbands' opinions, or because wives who hold independent opinions may be afraid to voice them. If either situation is common, then the extent of husband-wife agreement measured by surveys is likely to be greater in more gender-stratified social contexts.

For at least two reasons, however, a highly gender-stratified context may reduce husband-wife agreement. First, a high degree of gender stratification may result in women's strong dependence on sons, a phenomenon said to characterize parts of south Asia (Cain, Khanam, and Nahar 1979). Where this is the case, wives' preferences for bearing sons may be stronger than husbands' desires for doing so; as a result, the probability of couples' agreement about fertility is reduced (Mason and Taj 1987). Second, if gender stratification reduces husband-wife communication, and if couple communication is associated with higher levels of agreement (Hollerbach 1983), then gender stratification may reduce the extent of spouses' agreement about fertility goals. Thus a highly gender-stratified context might produce either a high or a low level of agreement between spouses about having additional children. Such settings, however, should give husbands a relatively strong voice in decisions about the use of birth control in instances where husbands and wives disagree about whether to have an additional child.

Finally, whether gender stratification influences the ability of husbands' fertility preferences to explain wives' unmet need for contraception should depend on whether it influences couple concordance and affects the influence of the husband's fertility preferences on the couple's use of contraception. If gender stratification *reduces* concordance but *increases* the husband's voice in determining contraceptive use, then husbands' preferences might indeed explain a considerable portion of wives' total unmet need for contraception. If either of these conditions fails to hold, however, then the ability of husbands' fertility preferences to explain wives' unmet need should be reduced accordingly. We explore this hypothesis and the others in the empirical sections of this paper. First, however, we describe our data and methods.

## DATA AND METHODS

The data used here were collected in 1993–1994 through personal interviews with married women age 15–39 and their husbands in 26 clusters of communities spread across five south and southeast Asian countries: Pakistan, India, Malaysia, Thailand, and the Philippines. For convenience we refer to each cluster as a community, although most clusters consist of more than one village or urban neighborhood. The clustering of villages or neighborhoods was necessitated by small numbers of cases in some locales, and was performed on the basis of geographic proximity and sociocultural simi-

larity.<sup>1</sup> Within clusters, either a probability sample or a complete census of eligible women was interviewed. Interviews focused on reproductive histories, women's employment, and gender stratification within the family as well as on family background and attitudes.

We selected countries in both south and southeast Asia because gender stratification is generally greater in south Asia than in southeast Asia. Incorporating intercommunity as well as intercountry variation in gender conditions was also critical to the goals of the study, but we could not do so at reasonable cost using probability methods in most countries. Thus we purposively selected communities in all countries except Thailand, where we were able to use probability selection.

Several dimensions of ethnic, religious, social, and economic variability were incorporated into the selection of communities on the (testable) assumption that they were related to gender conditions and stratification. In all countries save Pakistan, for example, we included both Muslim and non-Muslim communities because of statements in the literature that Islam tends to restrict women's freedoms in ways that other religious traditions do not (a supposition not generally borne out; see Jeffery and Jeffery 1997; Mason, Smith, and Morgan 1998). In Pakistan, where the population is almost entirely Muslim, we selected communities from three agro-economic zones and one periurban town of Punjab State because these areas vary in feudal structure and hence are thought to vary in gender stratification.

In addition to Hindus and Muslims, the Indian sample is divided into communities in a gender-conservative northern state, Uttar Pradesh, and in a less conservative southern state, Tamil Nadu (on north-south differences, see Dyson and Moore 1983). In Malaysia, we sampled the three major ethnic groups (Malays, Chinese, and Indians) in a moderate-sized urban area and in three rural areas. The rural Malay women in our sample are unusual because, although they live in rural *kampongs* (villages), all of them work as market sellers in Kota Bharu, the capital city of Kelantan State on the east coast of peninsular Malaysia. In Thailand, we sampled villages in the four major regions of the country (south, central, north, and northeast) as well as urban areas; Bangkok was sampled independently. In the Philippines, we sampled communities from several major provinces of the country. Muslim communities were selected from Zamboanga Province; Christian rural communities were selected from La Union, Camarines Sur, and Mindoro. We also sampled two areas of metropolitan Manila.

Whether the various dimensions of stratification built into our study—across countries, between Muslims and non-Muslims, across ethnic groups, and across regions within

1. Full descriptions of sampling and field procedures can be found in Chayovan and Ruffolo (n.d.), Jejeebhoy (n.d.), Nagaraj and Lee (1995), Raymundo and Domingo (n.d.), and Sathar and Kazi (1997). Information on the sampling and the disaggregation of the community clusters can also be found in Mason (1998) and in Mason and Smith (1999: tables 1 and 2). In the present paper, communities are clustered more heavily than in other analyses because in most countries only a subset of husbands were interviewed; hence the case bases in the original communities tend to be small.

countries—in fact create variability in the gender systems is an empirical question. Dimensions of stratification such as these are often used in demographic studies to proxy for gender stratification. Here, however, we use several direct measures of gender context, which we describe in the next section along with other key measures.

### Measures

The current analysis focuses on desires for additional children as reported independently by the wife and by her husband. Fertility desires were measured through the question “[Aside from the child you are/your wife is currently pregnant with,] do you want to have any more children?” In the current analysis, respondents who said they wanted no more children are distinguished from those who said they wanted more or who were unsure.

Because no follow-up question on the desired timing of the next child was asked, women and their husbands can be classified only according to whether they want additional children, not according to how soon they would like to have the next child. For this reason, *unmet need* as defined in this study differs from the standard Demographic and Health Surveys (DHS) definition, which distinguishes the unmet need for spacing from the unmet need for limiting (Westoff and Bankole 1995). Our measure of unmet need also differs from the DHS-based measure because we do not have information on fecundity status; hence we cannot exclude women who report themselves to be subfecund.

In studying concordance between wives and husbands, we have combined answers from couples in which the wife is pregnant with answers from couples in which the wife is not pregnant. The results for the wives who are certain they are not currently pregnant, however, are very close to those for the total sample.

Wives were also asked whether the couple was currently using any form of contraception, including contraceptive sterilization. Although husbands also were asked this question, the current analysis uses only the wife's report because most past studies focused on wives' unmet needs rather than those of husbands. In our data, levels of contraceptive use reported by husbands are quite similar to those reported by wives, but between 10 and 30% of couples give discrepant reports.

Question wordings and other information on measures of women's empowerment and of couple communication appear in the appendix. We focus on women's reported autonomy rather than on their education or employment because autonomy is the proximate determinant of women's ability to make contraceptive choices.

Six specific measures of women's autonomy are used. The first is a seven-point scale measuring women's reported say in economic decisions. The second measure is a three-point scale of women's reported say in fertility decisions. At the individual or household level, the causal order of this variable in relation to fertility outcomes is problematic, but at a community level it is a valid indicator of women's decision-making power.

The third and fourth measures concern whether women must have permission to move around outside the household. The first of these measures is a single question asking whether the woman needs her husband's permission to move around outside the home; the second is a scale based on five specific questions about whether she needs his permission to visit specific types of sites. We use both measures because the scale items are absent from the Thai survey and because we wish to be able to compare the Thai communities with those from the other countries.

The final two measures of empowerment refer to interpersonal power relations between the woman and her husband; these also are based on single items. One measure consists of a question asking the woman whether she is ever afraid to disagree with her husband for fear he will become angry with her; the other is a question asking the woman whether her husband ever beats or hits her. Jejeebhoy (1998) shows that, in the Indian communities, responses to the beating question are related to fetal and infant deaths. We would prefer more nuanced measures of intimidation and physical coercion, and we recognize that neither measure may be very successful at tapping these underlying dimensions. In the surveys on which the current analysis is based, however, follow-up questions were asked in only a subset of the countries. (In fact, the Malaysian survey did not ask the question about beating at all.) Hence we use these measures despite their potential weakness, and interpret the results involving them with caution.

In addition to women's empowerment, we examine two measures of spousal communication: how frequently the couple discusses fertility-related issues, and how often they discuss financial issues and community events. Each measure is based on responses to two questions.

The cross-cultural nature of the data used in this paper tends to compound the usual problems of intersubjective validity posed by all closed-ended survey questions. Although in collecting the data we made a great effort to use identical questions in all five countries, neither the questions nor the response categories are always equivalent; also, we do not know how respondents' understanding of these questions may have been influenced by cultural differences across (and within) the countries. In interpreting the results, one must take into account the possibility of intercommunity or intercountry differences in interpreting the questions that underlie our measures of women's empowerment and couple communication.

### Strategy for Analysis

We first examine intercommunity variation in women's empowerment and couple communication to understand variations in the gender context in which couples are operating. Then we focus on husband-wife agreement about whether to have additional children, using three measures of level of agreement. The first measure is the percentage of couples in which both persons responded in the same way to the question about desire for additional children. The second is kappa, a measure of intersubjective concordance relative to the level

**TABLE 1. GENDER STRATIFICATION AND COUPLE COMMUNICATION INDICATORS (MEANS), BY COMMUNITY**

Country and Community ( <i>N</i> )	Economic Power Scale (0–6)	Say in Fertility Decisions (0–2)	Can Go Out Without Permission (0–1)	“Permission to Go Out” Scale (0–5)	Afraid to Disagree With Husband (0–1)	Husband Beats Wife (0–1)	Couple Discusses Fertility (0–4)	Couple Discusses Other Issues (0–4)
Pakistan (Punjab)								
Most feudal area (108)	1.27	0.80	0.26	0.87	0.85	0.44	1.50	2.07
Central plains (152)	1.19	0.83	0.18	0.90	0.85	0.34	1.40	1.68
Least feudal area (158)	1.43	0.77	0.33	1.12	0.81	0.27	0.98	1.49
Periurban town (50)	1.35	0.88	0.26	1.11	0.84	0.54	1.69	2.16
India								
Uttar Pradesh Muslim (414)	1.29	0.99	0.59	0.43	0.59	0.42	1.67	1.79
Uttar Pradesh Hindu (419)	1.28	1.27	0.59	0.47	0.59	0.48	2.29	1.77
Tamil Nadu Muslim (406)	1.80	1.12	0.90	2.14	0.35	0.38	1.53	1.74
Tamil Nadu Hindu (420)	2.32	1.24	0.95	2.84	0.37	0.38	1.64	1.82
Malaysia								
Rural Indian (33)	2.39	1.48	0.36	2.94	0.48	— <sup>a</sup>	1.82	3.64
Rural Malay (39)	2.64	1.31	0.15	2.38	0.51	— <sup>a</sup>	2.08	3.21
Rural Chinese (87)	3.45	1.49	0.74	4.43	0.31	— <sup>a</sup>	1.89	2.59
Urban Indian (88)	2.56	1.43	0.16	2.10	0.44	— <sup>a</sup>	2.14	3.09
Urban Malay (64)	3.09	1.23	0.17	2.17	0.41	— <sup>a</sup>	1.89	3.31
Urban Chinese (80)	3.96	1.70	0.98	4.50	0.24	— <sup>a</sup>	2.15	3.19
Thailand								
Muslim (96)	3.95	1.70	0.15	— <sup>a</sup>	0.57	0.14	2.00	2.91
Other rural south (136)	4.54	1.73	0.46	— <sup>a</sup>	0.65	0.24	2.57	2.92
Rural northeast (203)	4.06	1.84	0.40	— <sup>a</sup>	0.73	0.17	2.44	3.12
Rural north (203)	4.07	1.80	0.38	— <sup>a</sup>	0.65	0.14	2.41	3.16
Rural central (227)	4.29	1.85	0.48	— <sup>a</sup>	0.73	0.30	2.24	3.13
Other urban (177)	4.63	1.75	0.49	— <sup>a</sup>	0.65	0.18	2.25	2.99
Bangkok (168)	4.47	1.70	0.48	— <sup>a</sup>	0.64	0.31	2.26	2.89
Philippines								
Zamboanga (Muslim) (196)	4.54	1.77	0.10	0.27	0.83	0.08	2.53	3.53
La Union (199)	3.74	1.56	0.76	3.14	0.49	0.05	2.24	2.49
Camarines Sur (197)	3.55	1.60	0.82	3.13	0.22	0.11	2.33	2.69
Mindoro (199)	4.23	1.80	0.58	3.02	0.41	0.25	2.43	2.67
Metro Manila (183)	4.06	1.54	0.68	3.91	0.23	0.17	2.73	2.76

<sup>a</sup>Not asked in this sample.

expected under the hypothesis of independence (Cohen 1960). Third, because both of these measures can be affected by the percentage of husbands or of wives who want no more children, we also examine Yule's  $Q$ , a measure of association that is not affected by these marginal distributions (Goodman and Kruskal 1954, 1959). All three measures are computed for each of the 26 community clusters in our sample.

To judge more formally the relationship between gender context and couple agreement, we also estimate community-level regressions predicting the measures of couple agreement from community averages on the measures of women's empowerment and couple communication. In addition, we esti-

mate individual-level logistic regressions in which we predict agreement between wife and husband from relevant demographic traits and the measures of women's empowerment.

In the second portion of the analysis, we turn our attention to contraceptive use. Because contraceptive use is unnecessary when a woman is pregnant, this portion of the analysis is restricted to women who are confident that they are not currently pregnant. In each of the 26 community clusters we estimate both additive and interactive logistic regression models predicting current use of contraception from the relative (and joint) impact of the husband's and wife's desires for more children.

TABLE 2. WIVES' AND HUSBANDS' DESIRES FOR CHILDREN AND LEVEL OF CONCORDANCE, BY COMMUNITY<sup>a</sup>

Country and Community	Wife Wants No More Children (%)	Husband Wants No More Children (%)	Gross Wife-Husband Difference	Percentage of Couples Agreeing	Kappa <sup>b</sup>	Yule's $Q^c$
Pakistan						
Most feudal area	47	40	7 <sup>†</sup>	88	0.75**	0.97
Central plains	51	45	6 <sup>†</sup>	82	0.65**	0.92
Least feudal	41	47	-7	76	0.52**	0.83
Periurban town	54	42	12 <sup>†</sup>	80	0.61**	0.92
India						
Uttar Pradesh Muslims	45	43	2	86	0.72**	0.95
Uttar Pradesh Hindus	61	57	4*	87	0.72**	0.95
Tamil Nadu Muslims	74	69	5**	91	0.79**	0.99
Tamil Nadu Hindus	69	67	2	87	0.71**	0.95
Malaysia						
Rural Indians	42	52	-10	73	0.46**	0.78
Rural Malays	41	21	21*	64	0.20 <sup>†</sup>	0.50
Rural Chinese	56	45	11*	79	0.59**	0.91
Urban Indians	58	53	5	75	0.49**	0.80
Urban Malays	31	36	-5	77	0.48**	0.80
Urban Chinese	55	51	4	71	0.42**	0.72
Thailand						
Muslims	56	50	6	80	0.59**	0.89
Other rural south	51	46	5	79	0.57**	0.87
Rural northeast	52	46	6 <sup>†</sup>	79	0.59**	0.88
Rural north	58	51	7*	80	0.61**	0.90
Rural central	55	52	3	71	0.42**	0.71
Other urban	58	48	10**	76	0.52**	0.84
Bangkok	58	46	12**	70	0.40**	0.73
Philippines						
Zamboanga (Muslims)	25	15	10**	78	0.33**	0.74
La Union	65	52	13**	75	0.50**	0.84
Camarines Sur	70	47	23**	70	0.42**	0.85
Mindoro	64	54	10**	79	0.58**	0.89
Metro Manila	66	49	16**	70	0.40**	0.73

<sup>a</sup>The gross wife-husband difference is the total percentage of wives in a given community who want no more children minus the total percentage of husbands in that community who want no more children. We used McNemar's (1947) test for paired data to test the significance of these differences.

<sup>b</sup>In a  $2 \times 2$  table, kappa is the observed proportion of cases that fall on the main diagonal minus the proportion of cases expected to fall on the main diagonal under the hypothesis of independence; this whole quantity divided by 1 minus the expected proportion of cases on the main diagonal (Cohen 1960).

<sup>c</sup>If the cell frequencies in the main diagonal of a  $2 \times 2$  table are  $a$  and  $b$ , and those in the off diagonal are  $c$  and  $d$ , then Yule's  $Q = (ab - cd)/(ab + cd)$ .

<sup>†</sup> $p < .10$ ; \* $p < .05$ ; \*\* $p < .01$

Finally, we consider the issue of "unmet need" by examining a cross-tabulation of contraceptive use by wife's and husband's desires for additional children. We use this table to simulate how much contraceptive use would increase if all husbands agreed with their wives about having no more children. We also investigate why our results differ somewhat from results of other recent studies of unmet need.

## VARIATION IN COUPLE AGREEMENT BY GENDER CONTEXT

Table 1 presents indicators of women's empowerment and couple communication by community. These data make clear that gender stratification systems are multidimensional: Communities showing high values on some measures of au-

**TABLE 3. METRIC COMMUNITY-LEVEL REGRESSION COEFFICIENTS SHOWING THE RELATIONSHIP OF GENDER OR COUPLE COMMUNICATION TO COUPLE CONCORDANCE, WITHOUT AND WITH CONTROLS FOR COUNTRY<sup>a</sup>**

Gender or Couple Communication Measure	Predicting Standardized Agreement	With Control for Country	Predicting Natural Log of Odds Ratio	With Control for Country
Wife's Economic Power	-0.03**	0.01	-0.18**	0.03
Wife's Say in Fertility	-0.08*	0.02	-0.55*	0.13
Wife Can Go Out Freely?	0.06	0.01	0.38	0.07
Wife Permitted to Go Out ( <i>N</i> = 19)	-0.02 <sup>†</sup>	-0.01	-0.15 <sup>†</sup>	-0.08
Wife Fears Husband	0.08	0.05	0.37	0.19
Husband Beats Wife ( <i>N</i> = 20)	0.26**	-0.11	1.79**	-0.66
Couple Discusses Fertility	-0.04 <sup>†</sup>	0.00	-0.22 <sup>†</sup>	0.04
Couple Discusses Other Issues	-0.07**	-0.04 <sup>†</sup>	-0.43**	-0.25 <sup>†</sup>

<sup>a</sup>Unless otherwise noted, *N* = 26. Each cell of the table shows the metric OLS regression coefficient from a model in which the measure of couple agreement is predicted by one measure of women's autonomy or couple communication (plus dummy variables representing countries, in the case of the equations that control for country). We used the natural log of the odds ratio of husbands' and wives' desires for no more children as the dependent variable in place of Yule's *Q* because the log-odds is a monotonic (albeit nonlinear) transformation of Yule's *Q* (i.e., it is a distribution-free measure of association) and has a distribution more suitable to OLS regression.

<sup>†</sup>*p* < .10; \**p* < .05; \*\**p* < .01

tonomy or couple communication do not necessarily show high values on other measures. For example, the reported prevalence of husbands beating wives is independent of the wives' economic and fertility decision-making power, or of whether they need permission to go out. Yet despite this multidimensionality, the data in Table 1 suggest that community clusters represent distinct gender contexts. At least some dimensions of women's autonomy and couple communication vary markedly across communities.

Does agreement between wives and husbands vary by gender context? Table 2 shows wives' and husbands' fertility desires by community.<sup>2</sup> The third column of the table indicates that women typically want fewer children than do men, but that differences between them usually are small; this pattern also is seen in recent DHS data (Bankole and Singh 1998). Earlier studies in south Asia, however, found that women wanted *more* children, not fewer, than did men (Mason and Taj 1987). During fertility transitions in highly gender-stratified contexts, women's fertility desires may decrease more quickly than men's.

The statistics displayed in Table 2 do not show any consistent relationship between the degree of gender stratification in a community cluster and the level of husband-wife agreement. Couple agreement is somewhat greater in the Pakistani and Indian communities than in southeast Asia; this difference could reflect intercountry differences in socioeconomic development or in average fertility levels rather than gender stratification. Within countries, the pat-

tern is less clear. Indeed, the more gender-stratified communities often show lower, not higher, levels of spousal agreement.

The lack of a consistent relationship between gender context and couple concordance within countries is confirmed by the community-level regressions displayed in Table 3. Very few of these regressions show a statistically significant bivariate relationship between community-level measures of women's empowerment and couple agreement; when country is introduced as a control variable, the relationships are reduced further. This lack of a consistent relationship may reflect cultural differences in how women interpreted the survey questions on women's autonomy, or it may reflect the theoretical ambiguity of the relationship between gender context and couple agreement. Whatever the cause, however, gender context does not covary consistently with couple agreement in these data.

### THE ROLE OF HUSBANDS' AND WIVES' PREFERENCES IN CONTRACEPTIVE USE

We focus now on the relative weight of husbands' versus wives' fertility preferences in determining their use of contraception. Table 4 reports the results of logit regressions predicting current contraceptive use. The columns of the table show, respectively, (1) the coefficient associated with the wives' fertility preferences, (2) the coefficient associated with the husbands' fertility preferences, (3) the difference between these two coefficients, (4) the coefficient for the interaction between wives' and husbands' fertility preferences (if the interaction is significant), and (5) the number of couples.

With the exception of the Philippines, the results in Table 4 largely conform to expectations, particularly if the comparison is made across rather than within countries. As one goes from the more to the less highly gender-stratified

2. Although we do not show the results here, we standardized all the percentages in Table 2 for the wife's age, length of current union, and number of children ever born. The standardized percentages differed from the unstandardized percentages in only minor respects, however, and the differences among communities and countries on which we focus were virtually identical. Consequently we omit the standardized figures from the table.

**TABLE 4. LOGIT REGRESSION COEFFICIENTS PREDICTING CURRENT CONTRACEPTIVE USE FROM WIVES' AND HUSBANDS' DESIRES FOR ADDITIONAL CHILDREN<sup>a</sup>**

Community	Wives' Preferences	Husbands' Preferences	Difference	Interaction	<i>N</i>
Pakistan (Punjab)					
Most feudal area	-1.05	4.05**	-5.10*	— <sup>b</sup>	91
Central irrigated plains	0.18	2.01**	-1.83	— <sup>b</sup>	114
Least feudal area	1.02*	1.50**	-0.48	— <sup>b</sup>	131
Periurban town	1.28	1.01	0.27	— <sup>b</sup>	40
India					
Uttar Pradesh Muslims	1.00*	1.49**	-0.49	— <sup>b</sup>	358
Uttar Pradesh Hindus	1.48**	0.89*	0.59	— <sup>b</sup>	377
Tamil Nadu Muslims	0.88 <sup>†</sup>	2.26**	-1.38	— <sup>b</sup>	371
Tamil Nadu Hindus	2.16**	3.13**	-0.97	— <sup>b</sup>	385
Malaysia					
Rural Indians	— <sup>c</sup>	— <sup>c</sup>	— <sup>c</sup>	— <sup>c</sup>	— <sup>c</sup>
Rural Malays	0.93	-0.24	1.17	— <sup>b</sup>	33
Rural Chinese	2.04 <sup>†</sup>	-1.06	—	3.77*	68
Urban Indians	2.06**	0.73	1.32	— <sup>b</sup>	79
Urban Malays	0.69	0.28	0.41	— <sup>b</sup>	55
Urban Chinese	1.49*	0.79	0.70	— <sup>b</sup>	74
Thailand					
Muslims	-0.00	1.68**	-1.68	— <sup>b</sup>	76
Other rural south	1.76**	0.61	1.15	— <sup>b</sup>	130
Rural northeast	1.98**	0.25	1.73	— <sup>b</sup>	190
Rural north	3.42**	0.85	2.57	— <sup>b</sup>	187
Rural central	1.69**	0.89 <sup>†</sup>	0.81	— <sup>b</sup>	212
Other urban	2.42**	-0.35	2.76*	— <sup>b</sup>	164
Bangkok	0.43	2.34**	-1.92	— <sup>b</sup>	149
Philippines					
Zamboanga Muslim	0.43	0.73	-0.30	-1.41	164
La Union	0.28	0.45	-0.17	— <sup>b</sup>	168
Camarines Sur	0.39	0.63 <sup>†</sup>	-0.24	— <sup>b</sup>	161
Mindoro	0.64	0.55	0.09	— <sup>b</sup>	158
Metro Manila	1.08 <sup>†</sup>	1.47 <sup>†</sup>	—	-1.78 <sup>†</sup>	148

<sup>a</sup>Estimated for nonpregnant wives only. The first two columns of the table show logit regression coefficients for the wives' and husbands' fertility preferences from models (one per row) that predict current contraceptive use from these preferences plus (where significant) the interaction between them, and, in all equations, the wife's age, treated as a 35+ versus < 35 dichotomy (coefficients for wife's age not shown in the table). The third column shows the coefficient for wives' preferences minus the coefficient for husbands' preferences (shown only when there is no interaction effect). The fourth column shows the coefficient for the multiplicative interaction of the husbands' and wives' fertility preferences (shown only when the interaction is significant).

<sup>b</sup>Coefficient not shown because interaction model does not fit the data significantly better than the additive model.

<sup>c</sup>Model not estimated (too few cases).

<sup>†</sup> $p < .10$ ; \* $p < .05$ ; \*\* $p < .01$

countries, the husband's preferences are decreasingly likely to influence contraceptive use as strongly as the wife's preferences, or to influence it more strongly. The exceptions to this pattern occur for subpopulations such as the Muslim minorities in India and Thailand, where gender stratification is relatively strong.

The pattern within countries is also at least partly consistent with expectations. In Pakistan, for example, the husbands' preferences play a stronger role than the wives' in the two more feudal areas, while the difference is very small or nonexistent in the least feudal village and the periurban community. Similarly, in Thailand, women's fertility

**TABLE 5. METRIC COMMUNITY-LEVEL REGRESSION COEFFICIENTS SHOWING THE RELATIONSHIP OF GENDER OR COUPLE COMMUNICATION TO THE LOGIT COEFFICIENTS RELATING WIVES' AND HUSBANDS' PREFERENCES TO THEIR USE OF CONTRACEPTION<sup>a</sup>**

Gender or Couple Communication Measure	Coefficient for Wives		Coefficient for Husbands		Difference in Coefficients	
	Raw	Country Control	Raw	Country Control	Raw	Country Control
Wife's Economic Power	0.19	0.31	-0.38*	0.46	0.57*	-0.15
Wife's Say in Fertility Decisions	0.94 <sup>†</sup>	2.93 <sup>†</sup>	-1.42*	0.11	2.36*	2.82
Wife Can Go Out Freely	0.64	0.76	0.60	0.55	0.05	0.21
Wife Permitted to Go Out ( <i>N</i> = 16)	0.15	0.12	-0.24	0.23	0.39	-0.11
Wife Fears Husband	-0.51	0.10	0.96	-1.66	-1.47	1.77
Husband Beats Wife ( <i>N</i> = 19)	-0.51	-1.26	3.90*	0.30	-4.41	-1.56
Couple Discusses Fertility	0.72	1.03	-1.46**	-0.98	2.19**	2.01
Couple Discusses Other Issues	0.34	0.26	-0.96**	0.16	1.30*	0.10

<sup>a</sup>Each cell of the table shows the metric OLS regression coefficient from a model in which the logit coefficient from Table 4 for the wives' preferences, the husbands' preferences, or the difference between these two coefficients is predicted by one measure of women's autonomy or couple communication (plus dummy variables representing countries, in the case of the equations that control for country). Unless otherwise noted, *N* = 22 (rather than 26); the three communities with interactions in Table 4 are not included, nor is the community where the basic model could not be estimated.

<sup>†</sup>*p* < .10; \**p* < .05; \*\**p* < .01

preferences dominate men's in determining contraceptive use in all rural locations except the Muslim community, where gender stratification is relatively pronounced. Bangkok, however, represents an exception to expectations because there, too, men's preferences dominate over women's.

The results for the Philippines are less obviously consistent with expectations than are the results from most other countries. In three of the five community clusters, neither the wife's nor the husband's fertility preferences have much effect on the use of contraception; in the two other communities, the wife's and the husband's preferences interact in ways that are difficult to interpret. The lack of any effect for either the husband or the wife in the three rural Christian communities may indicate that contraceptive use is influenced more strongly by the availability or quality of family planning services or by the stance of local religious leaders than by husbands' and wives' fertility preferences. Either interpretation would be consistent with the "pause" in fertility decline in the Philippines that occurred during the 1980s (Alam and Leete 1993). Except in the Philippines, however, the more autonomy women have, the more their fertility preferences are likely to equal or dominate men's preferences in determining whether contraception is used.

This impression is confirmed by community-level regressions in which the logit coefficients from Table 4 are predicted from community-level averages on the measures of women's autonomy and couple communication (see Table 5). Although women's autonomy and couple communication are unrelated to the size of the logit coefficient for wives' preferences, they predict the coefficients for husbands' preferences in the expected direction. The dominance of the

husband's preferences over the wife's also tends to be weaker, the greater the wife's autonomy or the more frequent the couple's communication. These patterns are largely a function of cross-country differences: When country is controlled, the size and significance of the relationships are reduced substantially.

Can couples' discussion of fertility or other issues explain the impact of their respective fertility preferences on contraceptive use? We reran the logit regressions shown in Table 4, adding the two measures of couple communication to each equation. We do not show the results here, but in no case did the control for communication statistically explain the original relationship between contraceptive use and either the wife's or the husband's preferences. In most equations, the more frequently the couple discussed fertility-related issues, the more likely they were to use contraception. It is unclear whether this finding reflects the impact of discussion on contraceptive use or the reverse; in any case, discussion does not reduce the size of the estimated relationship between husbands' or wives' fertility preferences and their use of contraception.

### CAN HUSBAND'S FERTILITY PREFERENCES EXPLAIN "UNMET NEED"?

Although our analysis has shown that the husband's fertility preferences influence the use of contraception quite strongly in highly gender-stratified contexts, it has not made explicit how fully these preferences might explain the unmet need for contraception. As conventionally defined, the unmet need for contraception to limit fertility is the percentage of exposed, fecund women saying they want no more children who are nevertheless not using any form of contraception (Westoff and Pebley 1981).



**TABLE 6. PERCENTAGE NOT USING CONTRACEPTION BY HUSBAND'S DESIRES FOR MORE CHILDREN: NONPREGNANT WOMEN WHO WANT NO MORE CHILDREN**

Community	Husband Wants More	Husband Wants No More	All Women	Difference, Last Two Columns	Implied Percentage Change <sup>a</sup>
Pakistan Punjab					
Most feudal area	— <sup>b</sup>	42	48	6	-12
Central plains	— <sup>b</sup>	46	53	7	-14
Least feudal area	— <sup>b</sup>	57	60	4	-6
Periurban town	— <sup>b</sup>	47	50	3	-5
India					
Uttar Pradesh Muslims	89	63	67	4	-6
Uttar Pradesh Hindus	67	37	40	3	-7
Tamil Nadu Muslims	81	37	40	3	-7
Tamil Nadu Hindus	89	26	30	4	-14
Malaysia					
Rural Indians	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>
Rural Malays	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>
Rural Chinese	— <sup>b</sup>	3	7	4	-55
Urban Indians	— <sup>b</sup>	5	10	5	-48
Urban Malays	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>	— <sup>b</sup>
Urban Chinese	— <sup>b</sup>	13	13	-1	6
Thailand					
Rural Muslims	— <sup>b</sup>	38	44	6	-13
Other rural south	24	7	11	5	-41
Rural northeast	12	3	5	2	-47
Rural north	0	2	2	-1	33
Rural central	14	4	7	3	-47
Other urban	7	6	6	0	-6
Bangkok	19	11	14	3	-20
Philippines					
Zamboanga (Muslim)	54	53	53	0	-1
La Union	52	38	41	3	-7
Camarines Sur	49	35	39	4	-11
Mindoro	47	44	45	1	-1
Metro Manila	20	29	26	-3	10

<sup>a</sup>We calculated numbers in this column by dividing the "difference" by the percentage for "all women" and expressing the result as a percentage. Calculations were made before numbers were rounded; hence the implied percentage change does not necessarily match the number obtained through dividing the figures shown in the penultimate column by those in the column for all women.

<sup>b</sup>Fewer than 15 cases in this cell.

How can we judge whether husbands' desires for additional children are responsible for wives' "unmet need"? (Recall that our measure does not take fecundity status into account.) If husbands' fertility preferences do *not* influence unmet need, then we would expect the total percentage of wives with "unmet need" to be the same as the percentage with "unmet need" among women married to husbands who want no more children: that is, whose husbands share their preference to stop having children.

Table 6 shows the percentage of women not using contraception (1) among those whose husbands want *more* children, (2) among those whose husbands want *no more* chil-

dren, and (3) among all nonpregnant women who say they want no more children. The final two columns of Table 6 show (4) the absolute percentage difference between unmet need without reference to the husband's desires and unmet need as defined by both the husband's and the wife's desire for no more children, and (5) the ratio of this difference to unmet need among all women regardless of their husbands' desires: that is, the percentage decline in "unmet need" as traditionally defined, were it redefined to take into account the husband's fertility preferences as well.

In almost all cases, converting the husband to the wife's position (no more children) would result in a decline in un-

met need. This finding seems to suggest that husbands' fertility preferences drive up the level of unmet need beyond what it would be otherwise. In most settings, however, only a modest absolute elevation in unmet need can be attributed to husbands wanting more children: 10 percentage points or less. To be sure, in Malaysia and Thailand, where the overall level of unmet need is low, the *proportion* of unmet need explained by husbands' preferences is fairly substantial. Indeed, husbands' desire for additional children explains the highest proportion of unmet need for contraception among wives in the countries where contraceptive use is most common, not those in which it is least common. In Pakistan, India, and the Philippines, where contraceptive use is low, only a small proportion of unmet need can be explained by the husband's preferences. Thus, although these results suggest that contraceptive prevalence would increase if all husbands agreed with their wives about the desirability of ceasing to have children, the increase in contraceptive prevalence would be small in the settings where unmet need is highest.

How can we reconcile these findings with recent statements that the husband's preferences are important for explaining unmet need in certain countries with high levels of need, such as the Philippines? The answer lies in part in the confusion of a relatively strong relationship between husband's fertility preferences and contraceptive use with a strong contribution of husband's pronatalism to unmet need. This point is illustrated most easily by comparing our data from the Philippines with the data used by Casterline et al. (1997). These authors present the following table, which suggests a substantial difference in husbands' pronatalism between contraceptive users and nonusers (for nonpregnant wives who want no more children).

Contraceptive Use Status	Percentage of Husbands Who Want More Children
Users	23
Nonusers	46

A rather different picture emerges, however, if these data are percentaged to match Table 6, in which contraceptive use is conditional on husbands' and wives' desires (not vice versa):

Data Set	All				
	Husband Wants More Children	Husband Wants No More Children	Women Who Want No More Children	Difference, Last Two Columns	Implied Percentage Change
Casterline et al. (1997)	31	14	18	4	-22
Current study	43	37	39	2	-5

The implied *percentage* change in unmet need in the Casterline et al. data is much larger than in our data (this difference reflects the choice of communities in the two studies). The important point, however, is that in their data

as well, convincing all husbands who currently want more children that they would be better off stopping now would lower the total level of unmet need by approximately one-fifth, not by half or more. The husbands' pronatalism can explain more of this unmet need in the Casterline et al. (1997) study than in ours precisely because the level of unmet need is lower in the settings studied by Casterline et al. Where unmet need is *low*, a reduction in men's pronatalism is likely to exert a large proportionate effect on the level of unmet need; where unmet need is high, changing men's minds about having children is far less likely to reduce unmet need substantially.<sup>3</sup>

The weak role of the husband's fertility preferences in accounting for the wife's unmet need for contraception reflects the high level of agreement between spouses that is found in most of the communities examined here—and in most other studies as well. This high level of agreement means that relatively few wives who want no more children are prevented from adopting contraception because their husbands want additional children. Thus, even when the absolute level of unmet need is very high, the husbands' fertility preferences cannot explain most of the failure to use contraception by wives who say they want no more children. Convincing husbands to want fewer children would reduce unmet need somewhat, but in most settings the absolute reduction would be small. In settings where unmet need is greatest, the proportionate reductions would be smaller still.

## DISCUSSION

In this paper we have explored the impact of gender context on desires for additional children and use of contraception among married women of reproductive age and their husbands living in selected communities in five Asian countries: Pakistan, India, Malaysia, Thailand, and the Philippines. These countries and the communities within them represent distinct gender contexts, as was illustrated in the first part of the analysis. Thus we were able to assess the influence of gender context on fertility desires and contraceptive use by analyzing these variables according to community and country.

Our results provide no evidence that gender stratification influences spouses' agreement about whether to stop having children. Gender stratification, however, appears to influence the husband's and the wife's relative say in determining whether contraception is used. Specifically, we found that the more highly gender-stratified the community, the stronger the impact of the husband's fertility preferences

3. Although it is difficult to make a precise comparison between the data shown here and the published data from the 1993 Philippines Demographic and Health Survey, which represent the nation as a whole, it appears that the data of Casterline et al. and our data bracket the national level of unmet need found in the 1993 DHS. By recomputing data in Westoff and Bankole (1995:5–6), we estimate the national level of unmet need at 25%, using the approximate definition used here. This figure contrasts with 18% in the Casterline et al. data and 39% in our data. Thus unmet need in the Philippines would probably decline by less than 20% but more than 5% if all husbands agreed with their wives about having no more children.

on whether the couple was using contraception. Preferences obviously are not the only factor determining whether couples adopt contraception. Accessibility and quality of family planning services are also critical; this may explain the unexpected results for our Philippines communities. Where it is possible for couples to obtain contraception, however, it would appear that gender context indeed influences the decision-making processes through which couples end up using—or not using—contraception. Thus a more powerful voice in determining contraceptive use appears to be one avenue by which women's empowerment helps to reduce fertility.

Although our results suggest that men in highly gender-stratified settings often control whether their wives use contraception, our analysis of wives' unmet need for contraception suggested that husbands' fertility preferences can account for only a small proportion of the total unmet need in most communities, especially where the absolute level of unmet need is high. This is the case because very few wives in these settings openly disagree with their husbands about having more children.

As these countries progress through the fertility transition, and if gender stratification is reduced, will a higher level of disagreement between wives and husbands emerge—and will husbands' opposition to contraception play a proportionately greater role in explaining unmet need among wives? The case of the Philippines suggests otherwise. That country is characterized by a relatively low level of gender stratification, by a relatively high level of husband-wife disagreement about fertility, and by a high level of unmet need. Yet in the communities we studied, disagreement between husbands and wives about whether to have more children accounted for only one-twentieth of married women's total unmet need for contraception.

Disagreement between husbands and wives about having more children may theoretically be important for explaining unmet need, but if the results of this analysis are taken at face value, then such disagreement explains relatively little of the unmet need in the countries where such need is highest.

## APPENDIX. MEASURES OF WOMEN'S EMPOWERMENT AND OF COUPLE COMMUNICATION

### Autonomy in Economic Decision Making

1. Please tell me who in your family decides the following: whether to purchase major goods for the household, such as a TV/refrigerator/etc.? (Wife participates = 1, does not = 0; major goods named in the question vary across countries.)
2. Please tell me who in your family decides the following: whether you should work outside the home? (Wife participates = 1, does not = 0.)
3. Who of these people usually has the greatest say in this decision: major purchases? (Wife included = 1, wife not included = 0.)
4. Who of these people usually has the greatest say in this

decision: whether you should work outside the home? (Wife included = 1, wife not included = 0.)

5. If you wanted to buy yourself a dress/sari/selwar kamiz, would you feel free to do it without consulting your husband (or a senior member of your family)? (Yes = 1, no or undecided = 0.)
6. If you wanted to buy yourself a small item of jewelry, such as a bangle/beads/etc., would you feel free to do it without consulting your husband (or a senior member of your family)? (Yes = 1, no or undecided = 0; item mentioned varies across countries.)

The scale was created by summing the six items: range, 0–6. The average reliability was .60; an analysis of the scale in relation to indicators of household socioeconomic status shows that variation in the scale is not simply a reflection of interhousehold variation in socioeconomic status (Mason 1998).

### Autonomy in Decision Making About Family Size

1. Please tell me who in your family decides the following: how many children to have? (Wife included = 1, wife not included = 0.)
2. Who of these people usually has the greatest say in this decision: how many children to have? (Wife included = 1, wife not included = 0.)

The scale was formed by summing the two items, which were correlated with each other .44 on average; range, 0–2.

### Need permission to Go Out?

Do you have to ask your husband or a senior family member for permission to go anywhere outside your house (or compound)? (No = 1, yes = 0.)

(Malaysia only) Are there places you cannot go without first asking your husband or a senior family member for permission, even if someone else will accompany you there? (No = 1, yes = 0.)

(Thailand only) Is there any place for which you must ask permission from your husband or elders in the house before going? (No = 1, yes = 0.)

### Permission to Go Out

Do you have to ask your husband (or a senior family member) for permission to go to:

1. The local market? (No = 1, yes = 0.)
2. The local health center? (No = 1, yes = 0.)
3. Fields outside the village? (No = 1, yes = 0.)
4. A community center, park, or plaza in the village? (No = 1, yes = 0.)
5. The home of relatives or friends in the village? (No = 1, yes = 0.)

The scale was formed by summing the five items: range, 0–5. Average reliability, .82.

### Interpersonal Coercive Controls

1. Are you afraid to disagree with your husband for fear he may become angry with you? (Yes = 1, no = 0.)
2. Does your husband ever hit or beat you? (Yes = 1, no = 0.)

### How Frequently Couple Discusses Fertility Issues

1. Have you [and your husband] ever discussed how many children to have? (No, never discussed = 0, not very often = 1, often discuss = 2.)
2. Have you [and your husband] ever discussed whether to use birth control? (No, never discussed = 0, not very often = 1, often discuss = 2.)

The scale was formed by summing these two items: range, 0–4. Average correlation, .41.

### How Frequently Couple Discusses Nonfertility Issues

1. Do you and your husband ever talk alone with each other about what to spend money on? (No, never discuss = 0, not very often = 1, often discuss = 2.)
2. Do you and your husband ever talk alone with each other about what is happening in the community? (No, never discuss = 0, not very often = 1, often discuss = 2.)

The scale was formed by summing the two items: range, 0–4. Average correlation, .36.

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