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RURAL PUNJABI SOCIAL ORGANIZATION AND MARRIAGE TIMING STRATEGIES IN PAKISTAN

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The most important social function of marriage is to form a connection between two families or to renew and strengthen an already existing connection. (Eglar 1960:93)

Few institutions are as pivotal as marriage in their implications for a broad range of social processes. Its links to the character of family life and societal fertility levels are firmly established (Fox 1967; Smith 1983), and more recent versions of demographic transition theory show marriage and its timing to be related to more pervasive social change (Caldwell, Reddy, and Caldwell 1982, 1983; Caldwell 1982; Ryder 1983). Moreover, ethnographic studies show that marriage is also a critical event in the individual and household developmental cycles, with implications for the economic stability of families, the establishment of cooperative ties between households and extended kin networks, and the education and economic participation of women (cf. Fortes 1958; Foster 1978; Parry 1979).

Given the multiple roles that marriage fulfills, it comes as no surprise that marriage patterns are changing in conjunction with other transformations throughout Asia (Smith 1980). In spite of regional variation in rates and degree, the overwhelming pattern is toward a later marriage age. Macro-level analyses have indicated that education, changing occupational structures, and urbanization increase female marriage ages. Yet the vital institutional components of this change in marriage behavior have been largely ignored in quantitative research (Smith 1980:91), as has the need to consider the relationships *between* women and men (cf. Papanek 1984). Part of the reason has been the absence of cultural variables in the typical aggregate data sets. In addition, there has been a tendency to oversimplify by assuming close adherence to cultural ideals. Thus a whole society might be characterized as practicing patrilineal cross-cousin marriage, but little attention is given to the range of behavior around this preferential pattern. As the research reported herein demonstrates, it is possible for nonpreferential patterns to be modal in a population.

Our purposes in this paper are twofold. First, we show how integrated use of ethnographic materials can enrich explanatory schemes based on survey data. Second, we present a transactional model of marriage behavior with particular application to South Asia. We view marriage timing and spouse choice as strategic outcomes of family and household decision processes on the part of both spouses' families. We agree that explanations of changing age at marriage stressing educational and occupational determinants capture a large part of the causation involved, but we stress here that a lack of attention to more specifically cultural and structural constraints on behavior needlessly impoverishes our understanding of marriage behavior.

We will examine survey data for rural Pakistan to illustrate a family-centered model of marriage behavior. We stress the pretransition, agrarian nature of the setting. Social and economic change has been minimal in recent years, and we do not directly examine these processes. Our exposition follows our analytic procedure: We first present a general model of marriage timing and then explore the ethnographic literature for the Punjab to isolate the important cultural factors underlying marriage behavior; next, we turn to the data for statistical confirmation of our hypotheses; and finally, we discuss implications of our results for the study of marriage in the South Asian setting as well as for styles of data collection and analysis.

THE FAMILY CONTEXT OF MARRIAGE

The literature is replete with empirical studies that establish the positive association among marriage age, educational attainment, urban residence, and—with somewhat less consistency—work for wages prior to marrying. Rarer are studies that give attention to the social and cultural contexts within which these variables operate. Wherever they are found, these associations tend to be explained in similar terms: female education is related to greater autonomy and a broader opportunity field for daughters, with a corresponding reduction of both parental control over the marriage process and the single-minded channeling of daughters into domestic roles. Similarly, female wage earning prior to marriage is related to greater domestic autonomy or, conversely, to enhanced productive value for the natal household, and both of these are associated with later marriage age.

Even when these associations obtain, their bald statement in these terms ignores the multiple roles of marriage in different social settings and at times leads to anomalous interpretations. For example, part of the association between education and later marriage is explained with reference to greater female autonomy in the marriage process (Cochrane 1979; Carleton 1975). Yet research in South India suggests that education does not alter the parents' role in their daughter's marriage. Throughout South Asia education may serve, in part, to raise the value of daughters in transactions between households (Caldwell, Reddy, and Caldwell 1982; Caplan 1984:221; Parry 1979:273) and thus hold constant parents' incentives to control marriage choices. Moreover, it is difficult to credit schooling's role as a vehicle for western ideas about marriage as the motivation in all cases. In our rural and urban lower-class samples, for example, we find that women who attended but failed to complete a single year of school marry later than those who never attended. Even among the urban middle class, where daughters obtain substantial amounts of education, 79 percent of the women reported no participation in the choice of their spouses (Cherlin et al. 1985a). Mason's (1984) suggestion that research consider cross-cutting hierarchies of class and gender provides a key to explanation in these cases.

Recent institutional explanations of fertility behavior (cf. McNicoll 1980; Cain 1982; Caldwell 1982; Dyson and Moore 1983) are equally relevant to the discussion of marriage timing, especially when marriage and fertility behavior share links with other social processes. Thus Lesthaeghe's (1980) suggestion for fertility analysis—that we examine the appropriation of resources, social control, risk devolution, and demographic checks along with the interplay between individual strategies and inherited world view—could as easily be applied to marriage processes. Similarly, Caldwell's wealth-flows model and its modifications (e.g., Cain 1981, 1982; Thadani 1978) suggest an approach to marriage behavior too.

Institutional examinations tend to center on links with modes of production and

control over resources. Behaviors are taken to be strategically directed toward goals determined by specific social and cultural settings. Thus the effects of a particular behavior are disentangled from the actual ends to which the behavior is directed. For example, though one of the goals of marriage timing may be the regulation of fertility, Smith (1983:479) points out that this would assume "an exceptionally distant planning horizon." A more logical and culturally informed approach would be to focus on the more proximate ends (Lesthaeghe 1980:530). The intimate connection of marriage timing and other social processes suggests that the fullest explanations must include economic, ideological, and affective components.

Anthropological research into marriage has tended to examine societies organized along the lines of pretransition settings defined in Caldwell's model. The mode of production is familial¹ and subsistence oriented in an agrarian setting. In this context the extent to which individuals have control over their marital decisions is an empirical issue. Keesing (1975:42-43) suggested that a marriage be viewed as a contract in which rights over work and reproduction are transferred between corporate groups, rather than as a straightforward union of two individuals. It becomes important to ask, then, how wide these corporate groups are and what rights and obligations are transferred. Other questions also arise: How does marriage fit into other systems of property exchange? Who are the effective decision makers? What are the implications for women's status and roles at different times in their life courses?

The answers to these questions are not separable from issues of social organization and mode of production. Sahlin, for example, devotes a great deal of attention to a discussion of exchange within the domestic mode of production (1972:185-230). A primary component of this exchange is that it is never entirely balanced; a continuous series of prestations binds one household or group to another. At the same time, the exchanges between two groups can either be symmetrical or asymmetrical; the latter type is associated with settings in which status is largely nonnegotiable and ascribed (Parry 1979:93). We need to consider whether women are an element of this continuing exchange cycle and the implications for marriage behavior. In addition, we need to consider the extent to which hierarchy is a component of a given social structure and the constraints it imposes on marriage strategies.

THE CONTEXT OF MARRIAGE IN THE PAKISTANI PUNJAB

Certain themes pervade marriage institutions throughout South Asia and the Pakistani case must be seen in this context. Among these themes are underlying patriarchal control of resources (cf. Cain, Khanum, and Nahar 1979), hierarchy, and the important role of women as signifiers of alliance between families.² We are here concerned primarily with the alliance function of marriage and the nature of transfers between families at marriage. Women's value as signifiers of this alliance is a function, in part, of the status of their natal home, biological age, and characteristics that they acquire throughout their life course. All of these values are culturally or ideologically determined.

Although ethnographic material for Punjabi Muslims in Pakistan is relatively scarce and generally concerned with rural settings (Slocum, Akhtar, and Sahi 1959; Eglar 1960; S. Ahmad 1974, 1977), that which exists suggests that the details of social organization parallel those in Northwest India (cf. Vreede-de Stuers 1968). Following Bloch's (1973) discussion of the relation between kin distance and cooperative reliability, we first discuss the degrees of relatedness within which it is permissible to marry in the Muslim Punjab, from biradaci to no relation at all before marriage.

Eglar has determined that the most important social group outside the immediate household is the patriline, or biradari (1960).³ Kin links within the patriline are strongest and individuals within it most subject to the constraints of the "moral economy." Fraternal ties between contemporaries are considered more important than intergenerational ties (S. Ahmad 1974:157). Eglar stresses that marriage is a critical biradari function, that all members have an interest in the contract, since honor (izzat) is ascribed to the whole group on the basis of how its individual members behave. Failure to observe the tenets of legitimate behavior reflects on the character of the entire biradari and can detrimentally affect the marriage prospects of other families within the group (Eglar 1960:78; cf. Tandon 1968:82-87).

The biradari is, in addition, the group that exerts control over property transmissions. Elder male biradari members must approve the sale of land to people outside the patriline, but any member has first choice of land to be sold (Eglar 1960:45-46). Although a great deal of social control is exerted at this level, the biradari also functions as an essential mutual aid group in the rural Punjab. Biradari members even contribute to the marriage expenses of their own members, helping to dampen the enormous burden a respectable wedding can place on a single poor family (Eglar 1960:78).

The next order of relationship includes those within the biradari as well as affines from outside. Called rishtadari (Eglar 1960:81-82), this group is more amorphously constituted than the biradari, although its members are considered to be cooperatively linked. In this paper, we use the term to refer only to nonbiradari relatives. The significance for marriage, then, is that transactions involve the alienation of property from the biradari. At the same time, marriage with rishtadari implies the duplication of interpatriline relationships across generations in much the same manner as Dumont's (1983:71-73) alliance marriage would predict.

Outside of groups of relatives, marriages can be contracted with families connected by friendship. In the Punjab, these relationships imply more than simple acquaintance. Friendship is organized in the northern part of the subcontinent to parallel actual kinship relationships, and serious friends are likely to be united in vartan bhanji networks of reciprocal gift exchange in rural Pakistan (Eglar 1960:106). Vartan exchange is carried on with both relatives and nonrelatives, but it is with one's nonaffines that the exchanges equal out over time. Otherwise, the direction of wealth flows is to the household of one's son-in-law.

Figures 1 and 2 diagram these relationships in standard anthropological fashion. Figure 1 portrays the distinction between biradari and rishtadari from the point of view of a male ego (represented by the blackened triangle at the bottom center of the diagram). Biradari relations are those individuals to the right of the broken line. One can see from the diagram that they are all descended from a common male ancestor. Rishtadari relatives, on the other hand, are those individuals to the left of the broken line. These are members of a separate patriline (descendants of a common male ancestor) and are related to our male ego through his mother as affines.

Figure 2 is a more complex portrayal of three types of marriage alliance that may be contracted in the Pakistani Punjab. Once again, the broken line divides two patrilines. In row A, marital links are diagrammed as occurring within each patriline. These are biradari marriages. If the separate patrilines in row A are neighbors, there is a strong possibility that they are ritually connected as friends in a vartan relationship. A robust form of this relationship would encourage them to formalize the connection through marriage. Row B depicts such a vartan marriage in the union of a daughter from patriline 1 with a son from patriline 2. This link converts the relationship between the two patrilines into one of rishtadari, and row C shows how

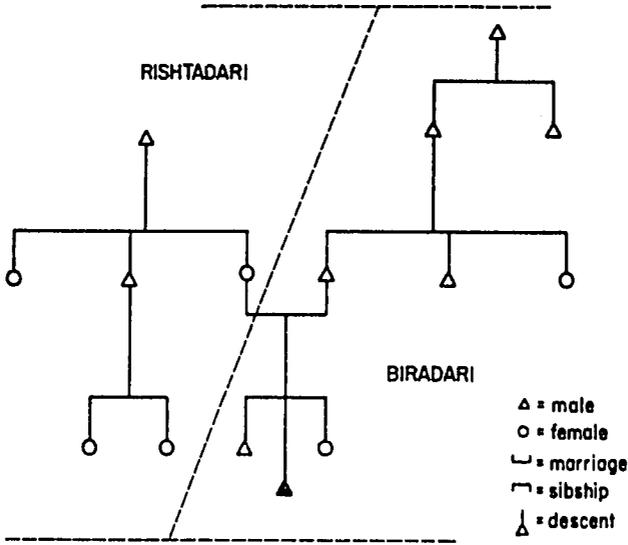


Figure 1.—Degrees of kinship distance in the rural Punjab

the successful links formalized by marriage are continued in further marriages. In row C marriage occurs between a man and a woman from different patriline, but related through a woman. We denote this type of marriage as rishtadari. It is obvious from the diagram that marriages in rows B and C, vartan and rishtadari, are identical to the extent that property is alienated from a patriline at marriage.

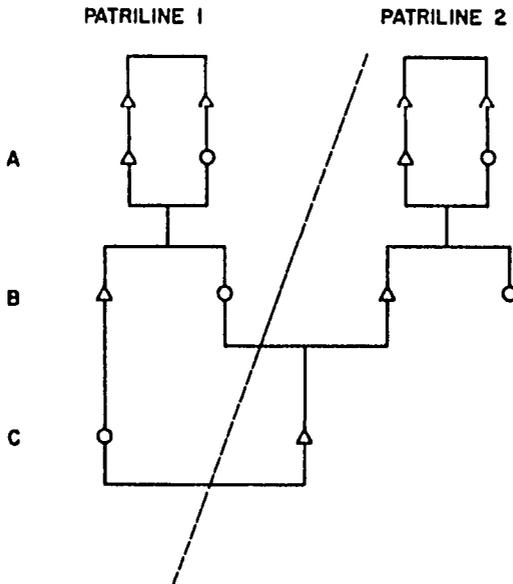


Figure 2.—Replication of alliances: Vartan bhanji to rishtadari marriage

The degree of relationship between households has implications for the marriage process that are, in part, related to the structure of wealth flows. Preferred marriages are within the kin group (Eglar 1960:94), more specifically within the biradari, and marriages outside this group are considered hypergamous⁴ (S. Ahmad 1974:157-159). Nevertheless, a high percentage of marriages are contracted outside this group (cf. S. Ahmad 1974:156). Das (1973:31) summarized the order of marriage preferences for the muslim villages of Pakistan and India as follows:

1. marriage to cousins is preferred to marriage with nonrelatives;
2. marriage of a set of brothers to a set of sisters is a desirable pattern, although exchange marriages in which daughters are exchanged between households are low status⁵;
3. village exogamy is preferential to village endogamy.

She pointed out that these preferences have implications for the frequency of marriages to specific relatives. Thus since brothers usually reside in the same village, cross-cousin marriage is more frequent than that with parallel cousins. This is followed in popularity by marriage with matrilineal parallel cousins. Because Muslim marriage permits union of nearly any type outside of the household, however, Das suggested that it is not possible to summarize Pakistani marriages in terms of a preferential pattern; rather, they are the result of cumulative relations between siblings and spouses within a family.

For both men and women, marriage arrangements are conducted by members of the senior generation. Although formal right to the decision goes to fathers, older brothers, or the nearest male agnates, mothers have informal decision-making powers most often realized in the form of veto (Das 1973:37). Marriage negotiations, however, nearly always involve intermediaries, since rejection can involve loss of face and countercharges of arrogance. A formal proposal is seldom made until acceptance is already assured; negotiations involve preliminary investigations into the behavior of household and biradari members as well as the establishment of dowry payments (Eglar 1960:78; cf. Parry 1979:241 and Tandon 1968:124-128 for parallel examples).

If marriage confers advantages in the form of new cooperative relationships (Slocum, Akhtar, and Sahi 1959:32; Eglar 1960:93), it also carries with it a certain amount of risk. In the process of negotiation, there is the risk of rejection; later the risk of marriage failure and the sundering of alliance relationships based on marriage arises. We would expect, then, that the group within which marriage is arranged reflects a consideration of benefits and risks by males in both households. A further consideration must involve the alienation of property from the biradari, marriages outside of which would involve continuing wealth flows outside the patriline. Parry (1979:295) suggested for the Rajputs that repetition of marriage to the same group of affines across generations is, in part, a risk-reduction strategy. These affines are a known quantity and, assuming a limited ability to afford risks, the safest marriage prospects. In a similar way, the dowry system and its attendant series of prestations after marriage means that biradari endogamy represents the most reasonable way of protecting patriline property, albeit at the expense of not generating new kin links. Caplan (1984:223) stressed how the restriction of marriages within a group can create a circulating pool of resources in another South Asian setting.

This has implications for the order of marriage preferences in the Punjab. It suggests that although the goal of every household is to maximize its advantageous connections through marriage, there will be inherent limitations on them related to

their control of resources and the degree to which they can muster valuable commodities for exchange. It also suggests that the ideology of marriage preferences will vary with social class. To take the rural case, a number of relationships arise. We accept, first, that the majority of households in the rural Punjab are of Ajlaf status, primarily descendents of Rajput and related converts to Islam. We suggest that rural marriage patterns tend to parallel those of antecedent groups and that documentation from the few rural studies supports this. To summarize for the rural Punjab:

- Wealthier households will tend to marry daughters to nonrelatives more often than poor households, since their interests are in expanding kin linkages and they can more readily assume the risks. In addition, there are lingering ideological justifications for doing so.
- Homogamous marriages will outnumber hypergamous. In those cases of hypergamy, the value of marital transactions and wealth flows to the husband's family will be higher than in homogamous cases.
- Cases of hypogamy will occur, but the value of transactions will be toward the wife's family and bride wealth may replace dowry.
- Both hypogamous and hypergamous marriages will be more associated with formal engagement than homogamous marriages, since they involve more risk and negotiation.
- The value of a daughter is affected by menarche and the anxiety about chastity. Two possibilities arise in response to early menarche: either a daughter will be rapidly married off to protect her family's honor, or she will be married at roughly the same age as other daughters but to relatives who can feel most assured that she has been protected.
- The safest marriages are those contracted within the biradari, followed by those either within the rishtadari or with a vartan connection. The most risky marriages are those contracted with a family with which no prior formal connection exists; these are most clearly entered into for the advantages they confer.

In a setting where structural and ideological factors so explicitly stress the symbolic and exchange value of women and where a woman's age is a partial component of her value, we expect marriage strategies to have implications for daughters' ages at marriage. A woman has virtually no say in the marriage process in the rural setting (aside from a pro forma ratification of arrangements already made in the *nikah* ceremony), and even in urban settings, it is clear that the pressures on parents cause them to discount their daughter's wishes. We expect, then, that marriage age will vary with the relative status of families, educational attainment of women, dowry payments, and the degree of relationship between spouses' families prior to marriage. Our hypotheses for marriage timing in the rural Punjab follow from a consideration of daughters as wealth.

Relationship between families. A daughter's age at marriage will vary with her natal home's relationship to her spouse's natal home as a function of cultural expectations of first choice and the prescribed direction of wealth flows between households. Marriage within the biradari implies no alienation of property, and this group is most assured of the chastity of the bride. There is no reason for her to marry early except that biradari members have first claim and this claim must be removed if marriages outside the patriline are to be made. In terms of property alienation, there is no difference among the other degrees of relationship. Both rishtadari and vartan

groups, however, already possess cooperative links with each other; marriage functions to reaffirm these. Furthermore, both groups have access to information about the woman and are more secure than strangers about her chastity. Completely new relationships established by marriage, however, will fully exploit a daughter's exchange value in the rural setting; they will be the most likely to rely on formal culturally stated values. Knowledge of a daughter's chastity will be less secure in such marriages, and the culturally augmented inferiority of wife-givers in relation to wife-receivers will mandate a flow of women possessing positive cultural attributes.

H1: These issues of property transfer and knowledge of a woman and her family lead us to predict that the youngest ages at marriage will be between previously unrelated families, followed by biradari marriages. Marriages between rishtadari and vartan groups will be the latest and at similar ages on average because of the structural similarity of property transfer and faith in a family's standing between these groups.

Education. The desire for educated women is still ambiguous in the rural setting; a little (less than the husband's) confers status on a woman's natal home, but too much can negatively affect marriage prospects. Education enhances a woman's value and offsets the decline in desirability that must occur with age.

H2: We expect the often-noted positive association between education and marriage age, but we also expect it even when there is very brief attendance and no grade attainment.

Dowry. Dowry involves a transfer of property from the wife's natal home to that of her husband's. It serves, in part, to enhance the symbolic value of a daughter and can also offset her devaluation from biological aging.

H3: Dowry will be positively associated with a woman's age at marriage.

Relative status of families. Marrying into a higher status family—hypergamy—is risky and expensive across all measures of value. Dowry payments will be higher for reasons that go beyond their offsetting of a daughter's age. Hypogamy—marriage into a family of lower status—on the other hand, reverses the advantage and risk. Hypogamous marriages do occur in spite of strong ideological sanctions against them. In such cases the husband's family is at a strong disadvantage in negotiations, since they are the initiators of the alliance and have much to gain. We have two predictions about age at marriage and the relative status of families then.

H4: We expect hypergamous marriages to be associated with the youngest average ages at marriage. Hypogamous marriages will be associated with the latest average ages at marriage.

Age at menarche. We have noted that the risk associated with accepting a daughter-in-law increases with duration since menarche in these transactions (cf. Paige and Paige 1981:85). This event should be an important initiator of the marriage process.

H5: We expect age at menarche to be positively related to marriage age for daughters.

Wealth flows. Transactions move in both directions at marriage, and we expect these to be related to the alliance-producing nature of the institution too. Wealth flows toward the wife's natal home indicate this family's advantage in the contract in much the same way that hypogamous marriages give an advantage.

H6: We expect female ages at marriage to be younger with wealth flows toward the husband's family.

Engagement. Finally, we expect that engagement before marriage is associated with the need to formalize the marriage process itself. Among the functions served here are the ratification of agreements made between families. These should be most necessary with those marriages contracted between unrelated families, since families in some relationship to each other before marriage can afford to be more casual.

H7: We expect marriage age to have a negative relationship to formal engagement.

DATA AND METHODS

The Asian Marriage Survey

This analysis is based on data from the Pakistan round of the Asian Marriage Survey (AMS).⁶ Data include a wide range of marriage and fertility information, with special attention to cultural variables and individual life history events for married women between the ages of 15 and 45 and for a sample of their husbands. Systematic samples of households were drawn to represent three socioeconomic settings in the Punjab—a rural sample from a few contiguous villages in Kasur and Sheikhpura districts, an urban lower-class sample drawn from squatter-dominated districts within Lahore, and an urban middle-class sample drawn from another district of Lahore. Each sample is relatively homogeneous with respect to economic background and current standard of living as well as overall cultural milieu.

Important innovations in the AMS instruments include the breadth of topics covered. Each interview covered a wide range of basic social and economic characteristics in addition to data from each of the spouses on parental characteristics, the process of entry into marriage, work and income, attitudes toward marriage and divorce, and attitudes and aspirations for children. Life histories were obtained for timing of events under the headings of education, work, marriage, childbearing, and family limitation. For Pakistan, especially important details of dowry payments and relationship of spouses were included in addition to information on attitudes toward purdah and other aspects of Islam in Pakistan. The completed sample for Pakistan contains interviews with 1,011 women and 588 men.

Because this paper is concerned with the transactional strategies of marriage, we include only cases for which both wife's and husband's information is available. In addition, the data contain the event truncation bias that is built into all cross-section samples of ever-married persons (Ryder 1975). Because young ever-married women come from cohorts with incomplete marriage experience, women in those cohorts who were married at the younger ages are disproportionately selected. The age by which 90 percent of recent cohorts will have been married was estimated at 21, and we have excluded women below this age (Smith and Karim 1980). Thus the initial rural sample of 351 respondents becomes 173.

Indicators of Marriage Strategy

Table 1 presents the distribution of cases for a range of variables. Of these, indicators of most direct interest are those that have to do with family influence and

Table 1.—Selected characteristics of female respondents, rural households in Pakistan Asian Marriage Survey^a

Variable	Percent in category	Variable	Percent in category
Father's occupation ^b	(172)	Frequency of meeting with spouse before marriage	(169)
Zamindar	51.7	Never or once	54.4
Agricultural laborer	25.0	Infrequently or often	45.6
Unskilled laborer	10.5	Relationship between families before marriage	(170)
Skilled laborer	5.8	No relationship	29.4
White collar worker	7.0	Vartan	17.6
Woman's education	(173)	Rishtadari	34.1
Literate	10.0	Biradari	18.8
Never attended school	43.4	Type of dowry	(173)
Attended, 0 attainment	45.1	None/household goods	35.3
1-8 grades	9.3	Cash/luxuries	64.7
9-12 grades	2.3	Value of payments to husband's family	(172)
13 or more grades	0.0	0-499 rupees	16.3
Woman's occupational status before marriage	(173)	500-999 rupees	15.1
No work	5.8	1,000-1,999 rupees	22.1
Family work	50.9	2,000-3,999 rupees	20.9
Wage work	43.4	4,000-5,999 rupees	9.9
Current household has electricity	55.9	6,000-10,000 rupees	10.5
Age at menarche	(173)	10,000 or more rupees	5.2
<13	39.3	Wealth flows at marriage	(172)
13	32.9	To wife's family	17.4
>13	27.7	Balanced	29.1
Engagement status	(171)	To husband's family	53.5
Not engaged	43.3	Marriage type by relative land status of families	(173)
Engaged	56.7	Hypogamous union	11.6
Participation in choice of spouse by woman	(173)	Landless homogamy	22.0
No participation	100.0	Landed homogamy	50.9
Some participation	0.0	Hypergamous union	15.6

Note: Figures in parentheses are number of cases available for given variable.

^a The original sample includes 351 women; interviews with husband were available for 198 of these women; among the 198, 25 were under age 21 and have therefore been excluded.

^b At time of woman's birth.

strategic behavior in marriage. Additional variables that we include are education and father's occupation, as indicators of class background and achievement. We will not comment extensively on these except to note, first, the striking agrarian character of the rural stratum. Second, we wish to point out an unusual feature of education for women. A substantial number of women enter school but never complete a single grade (full year) of instruction. Further, earlier analysis (Cherlin et al. 1985b) revealed that these women marry significantly later than those who have

never attended school at all. The extent to which this is a phenomenon restricted to women is revealed by comparison of distributions for husbands and wives. In no stratum is there a comparable percentage of men who have attended school without attaining a grade. Our inclination is to interpret this in terms of the exchange value of women, which we will discuss in a later section.

Finally, we note the distribution of type of work before marriage for women. Women reporting no work at all appear to be from wealthier households with the ability to afford orthodoxy. We expect those women most restricted by *purdah* to be in this group. Family work is defined as work within the household enterprise, whether farm, trade, or small-commodity production, and wage work implies payment from an enterprise other than the family's. It is important to realize that these wages are invariably turned over to the household head.

The distributions for frequency of meetings between spouses before marriage and choice of spouse are given in table 1 only to show the extent to which women lack control in their marital decisions. No woman in the rural sample reported any degree of choice in her spouse other than the ratification of parental choice in the *nikah* ceremony. The extent of meetings between spouses before marriage, on the other hand, most likely reflects meetings between couples before puberty and the need for *purdah*. A strong correlation between kinship and more frequent meetings suggests this.

Variables

Taking each variable separately, we discuss their construction and the rationale for inclusion here.

Age at menarche. This variable is coded from a straightforward question asking age at first menses. It is possible that the importance of menarche in this setting encouraged misstatement of actual ages (Paige and Paige 1981:79-82). Nevertheless, we retain the variable in the analysis because of its centrality in our discussion.

Relationship between families before marriage. Our earlier discussion of the degrees of relatedness within which marriage may occur in Pakistan leads us to distinguish four categories for the rural stratum. Three questions on the schedule (H24A-H24C) are the basis for the coding: Was your spouse related to you before marriage? Were your and his families friends or neighbors before marriage? How were you related? We define as marrying within the *biradari* only those respondents who explicitly identified their relationship with their spouse as being through patrilineal kin. Other degrees of relationship are defined as *rishtadari*, using assumptions based on the disinclination to reverse wealth flows from generation to generation and other Punjabi cultural values (cf. Parry 1979; Eglar 1960; Das 1973).

Engagement. We include a variable for engagement before marriage as an indicator of marriage formality. This is taken directly from a question concerning whether the respondent was formally engaged.

Type of dowry. This indicator measures the extent to which dowry was intended to provide for the new household rather than attract a husband. Traditional dowries tended to be confined to household goods for the use of the new couple. Recent years have seen the inflation of dowry to include money and cash goods throughout South Asia, so the absence of these is something of an indicator of socioeconomic status in modern marriages. We include it here with the expectation that the type of dowry will also be related to the bargaining process. Cash and luxury dowries are expected to be a feature of hypergamous marriages.

Value of payments to husband's family. This indicator is coded from a direct question to male respondents. Though we might doubt the accuracy of such

responses in some contexts, these payments are reported by ethnographers to be a source of some pride in Muslim marriages. indeed, a part of the wedding ceremony involves the declaration of gifts to the husband's family, and the nature and value of items are recorded in a book as they are called out. Thus we expect these responses to be very close to their true values and important indicators of marital transactions between families.

Homogamy. We have constructed an indicator designed to roughly measure the relative homogamy of marriages by using land as an indicator of status. We expect this to be a good measure for rural households in which the agrarian economy makes land a critical productive resource. Nevertheless, we must stress that it is an imperfect measure of homogamy in spite of land's importance, since we have no measure of relative amounts owned. Hypergamous marriages are defined as those in which a landless woman's family has made a marital link with a landed family, whereas hypogamous marriages represent the opposite case. In our initial analysis (and in table 1), we broke marriages down into subgroups of landed and landless, but these are combined in the analysis presented here, since there was no difference between them.

Wealth flows at marriage. This indicator is directly constructed from questions about the value of marital transactions in both directions. In the analysis below, we combine those categories in which wealth flows were either toward the woman's natal home or balanced, since the Punjabi cultural ideal is that flows should be toward the husband's home. [But note evidence from elsewhere in South Asia of change in the direction of wealth flows (Lindenbaum 1981; Caldwell, Reddy, and Caldwell 1982, 1983; Caplan 1984).]

Method of Analysis

We employ least squares regression to estimate the coefficients associated with variables taken as predictors of wives' ages at marriage. The set of variables just discussed—the marriage-process variables—are distinguished from a set of background or control variables. All variables are measured as categories and are entered into the equations as dummy variables, although a multiple classification analysis format has been used to present the results in tables 2 and 3.⁷ We present one unadjusted and two adjusted mean ages at marriage for each category in these tables. The unadjusted column represents the effect of each indicator when its set of dummy variables is entered into the equation by itself. The first column of adjusted means reflects the effects when age at marriage is regressed on the set of variables specified in the given table by themselves. Adjusted means in the second column indicate the effect of each set of dummy variables entered along with all control and other marriage-process variables. The R^2 for each set of measures is the variance explained by that group of dummy variables above. For the adjusted means, the incremental R^2 's presented represent the additional variance explained by each set of dummy variables after all others have been entered into the equation for that column. We have indicated significance levels up to the 0.10 level because the small sample tends to reduce significance levels even when the coefficients are quite large in absolute terms. In fact, nearly all variables shown to be significant at the 0.10 level are very close to the 0.06 level of significance.

RESULTS

Table 2 presents the results of our regression for those background variables not directly tested here. In general we find that those that are significant by themselves retain their significance even after other variables are entered. We can see from this

Table 2.—Mean age at marriage by background variables, unadjusted and adjusted

Variable	Mean age at marriage			Number of cases
	Unadjusted ^a	Adjusted ^b	Adjusted ^c	
Cohort^d				
<30	17.3	17.1	17.1	84
30-34	17.6	17.7	17.3	20
35-39	16.6	16.7	16.5	31
40-45	17.3	17.6	17.9	30
(Increment in R ²)	(.010)	(.010)	(.020)	
Class background^e				
Farmer	17.2	17.2	17.2	88
Agricultural laborer	16.4	16.7	16.7	38
Blue collar/professional	18.0	17.7	17.7	39
(Increment in R ²)	(.034*)	(.012)	(.012)	
Woman's education				
No schooling	16.1	16.3	16.4	72
Attended, 0 attainment	17.7	17.3	17.5	74
1-12 years completed	19.3	19.1	18.5	19
(Increment in R ²)	(.124***)	(.090***)	(.045**)	
Woman's occupational status before marriage				
Family work or no work	17.7	17.6	17.6	92
Wage work	16.5	16.7	16.5	73
(Increment in R ²)	(.041***)	(.021**)	(.038**)	
Grand mean	17.2			
Total cases	165			
R ² for all background variables		.171		
R ² controlling for marriage process variables			.124	

a Zero-order mean

b Controlling for other background variables

c Controlling for other background variables and all family process variables

d Age at survey date

e Father's occupation at time of woman's birth

*** significant at the .01 level

** significant at the .05 level

* significant at the .10 level

tabulation that there are no cohort trends in marriage age in our sample of women and that class background appears to make little difference in marriage timing once controls are included in the equation. The most interesting pattern in educational effects on marriage age is with that group of women who have attended school but never finished a grade. These women marry a full year later than those who have never attended, even after controls are entered. We also note that women who work for wages before marriage marry a year younger on the average than those who work for their families. The latter two results are not predicted by the standard theories of marriage. Nevertheless, the overall results presented in table 2 support the impor-

tance of education and occupation as components of the complete explanation of marriage timing. The background variables by themselves account for 17 percent of the variation in marriage age and continue to account for over 12 percent of that variation even after adjustment for marriage-process variables.

Turning to table 3, we can more precisely see the contribution of our marriage-process variables to the explanation. Looking at the zero-order relationships first, we see that three of these—the relationship between families before marriage, value of dowry, and marital homogamy—make large and statistically significant contributions to marital timing. At this level we find good support for our hypotheses concerning the effects of each of these variables on marriage age. Thus the early marriers, categorized by relationships, are those whose marriages are contracted with strangers, followed by those married within the patriline. The latest marriers are those who marry nonpatrilineally related kin or into variant groups. We also find that value of payments to husband's family is positively associated with marriage age. Our hypothesis concerning marital homogamy and marriage age receives more mixed support. Women in hypogamous union are the latest marriers, as predicted; but not as expected, hypergamously married women are not the earliest marriages.

Other hypotheses receive no support at this level. Age at menarche appears to have a weak positive relationship with age at marriage, but the result is not significant and the R^2 increment is quite small. Nor does engagement status, dowry type, or direction of wealth flows make any significant difference to marriage age. When we enter controls for other marriage-process variables (cf. first adjusted mean), wealth flows achieve significance in relation to marriage age and in the predicted direction, but no other variable shifts toward significance in this way.

The absence of a positive relationship between age at menarche and marriage timing is notable, since a significant relationship has been reported in a wide variety of social settings (Udry and Cliquet 1982). One possible explanation is attenuation due to misstatement of actual ages at first menses. We have already cited Paige and Paige (1981) in this connection, and the age pattern of menses ages in our data suggests some convergence of responses on normative ages.⁸ Yet other relationships in our data are consistent with accurately reported ages at menarche. For example, cross-tabulations of age at first menses and whether a woman was formally engaged before marriage show that lower ages at menarche are associated with the absence of engagement. This is an expected relationship: our hypotheses predict a speeding up of the marriage process when menarche is relatively early; one way to achieve this is through the deletion of certain elements in the process. Further indication of accurately reported ages at menarche appears when we consider the relationship between age at first menses and age at marriage separately for landed and landless households. Within the landless group, there is no relationship. Among landed households, on the other hand, there is a consistent rise in the age at marriage with age at menarche—from 16.9 for those who experience menarche before age 13 to 18.2 for those who experience menarche after age 13. This is as predicted, since landed households are the most likely to contract marriages with unrelated families in which the elements of risk and concern about chastity weigh the heaviest.

In general, the marriage-process variables retain their effects when controls are entered, although there is a slight weakening in the levels of significance. Given a relatively small sample size, our results provide heartening support for a theory of marriage that includes social-structural and transactional elements. The full regression results (not shown here) show that all of these variables together account for over 27 percent of the variance in marriage timing in the rural sample. Our analysis shows that both the standard background or control variables and the more

Table 3.—Mean age at marriage by marriage process variables, unadjusted and adjusted

Variable	Mean age at marriage			Number of cases
	Unadjusted ^a	Adjusted ^b	Adjusted ^c	
Relationship between families before marriage				
No relationship	16.3	16.2	16.5	49
Biradari	16.9	17.1	16.9	32
Kishtadari/Vartan	17.8	17.8	17.7	84
(Increment in R ²)	(.046**)	(.049**)	(.026*)	
Age at menarche				
<13	16.9	17.1	17.0	65
13	17.3	17.2	17.4	57
>13	17.4	17.2	17.2	43
(Increment in R ²)	(.004)	(.000)	(.003)	
Engagement status				
Not engaged	17.2	17.4	17.2	70
Engaged	17.2	17.1	17.1	95
(Increment in R ²)	(.000)	(.002)	(.000)	
Type of dowry				
None/Household goods	17.0	17.3	17.3	56
Cash/Luxuries	17.3	17.1	17.1	109
(Increment in R ²)	(.001)	(.001)	(.002)	
Value of payments to husband's family				
0-499 rupees	16.1	15.5	15.9	26
500-999 rupees	16.7	16.5	16.6	25
1000 or more rupees	17.5	17.7	17.6	114
(Increment in R ²)	(.036**)	(.052**)	(.026*)	
Marriage type				
Hypergamous union	17.3	17.1	17.4	27
Isogamous union ^d	16.9	16.9	16.8	121
Hypogamous union	18.9	19.4	19.2	17
(Increment in R ²)	(.042**)	(.060***)	(.046**)	
Wealth flows at marriage				
Balanced/Towards wife's family	17.1	17.8	17.8	76
Toward husband's family	17.3	16.7	16.7	89
(Increment in R ²)	(.001)	(.021*)	(.022*)	
Grand mean	17.2			
Total cases	165			
R ² for all marriage process variables		.147		
R ² controlling for background variables			.101	

^a Zero-order mean

^b Controlling for other marriage process variables

^c Controlling for other marriage process variables and all background variables

^d Between two landed or between two landless families

*** significant at the .01 level

** significant at the .05 level

* significant at the .10 level

structural and cultural variables account for their own parts of this variance. Thus background variables explain a unique 12 percent of the variance, and the marriage-process variables explain an additional 10 percent. The remaining 5.2 percent is explained jointly by the two sets of variables.

Our analysis supports most of our hypotheses and, on balance, reinforces the perspective from which they are derived. Regarding H1—that marriage between unrelated groups will result in the youngest and marriage between rishtadari and vartan groups the latest ages at marriage—we have complete support. More than a year separates the oldest and youngest groups, even after all controls are entered.

Our second hypothesis—that education will be positively associated with marriage—is also supported. We have included this variable with the other background factors because, superficially, this relationship is hardly surprising. Nevertheless, the significant increase of a year in marriage age that occurs even when a grade of school is not completed suggests an unconventional interpretation of the importance of education in this setting. Thus education must have its effects because of the symbolic value it has for the wife-receivers in the marriage transaction, rather than because of its impact on the woman herself.

H3, concerning the positive relationship between dowry value and age at marriage, is supported here with more than a year and a half separating earliest and latest marrying groups. This is true even with controls for class background and the inflation of dowry values that we might expect to be associated with class background.

Our fourth hypothesis, concerning the relationship between homogamy and marriage age, receives only mixed support. Hypogamously marrying women are the latest marriers by nearly two years. That hypergamously marriers are not the youngest may be because using landed status results in an imperfect measure.

Finally, H6—that marriage age will be negatively associated with wealth flows to the husband's family—is supported only after controls for other marriage-process variables are included. The meaning of this pattern is unclear and may be a function of an association between dowry value and wealth flow not yet investigated.

Our hypothesis concerning engagement and menarhe has not found support in this analysis. We have already mentioned possible problems with the menarhe variable. Our phrasing of the engagement hypothesis is such that a zero-order effect should have been evident and disappeared when the control for relationship between families is entered. That no zero-order effect was evident suggests that our association of engagement with socially riskier marriages is wrong. Rather, engagement may be considered a component of all marriages; its association with later menarhe alluded to earlier suggests that elements of the marriage process may be altered in response to unpredictable events.

DISCUSSION

Our perspective, couched in ethnographic knowledge of Punjabi social organization and the culturally determined roles of women, receives strong support from this analysis. This is not to argue that the more standard "development" indicators are unimportant in explanations of marriage timing. Rather, we have demonstrated that a more complete understanding will be gained by considering the ranges of behavior permitted and forbidden in particular cultural settings.

The results further encourage such comparative analyses by cautioning against taking pretransition settings to be without individual-level variation in behavior. To say that a society is organized patrilineally or that inheritance is partible is not enough. Even in Pakistani Punjab, where the constraints of ideology on behavior

may be thought of as especially powerful, we have shown that there is room for flexible responses that have their impact on marriage timing.

We have used the rural Punjab case to present a model in which the alliance function of marriage is very important. We suggest that the underlying components of such a society include its agrarian orientation and its unilineal kinship organization. It is possible that the model we have begun to develop here will find useful application in other patrilineal rural settings in the rest of South Asia and elsewhere.⁹

Finally, a note on social change. We consciously directed our attention to a pretransition setting to highlight the need to consider the cultural and social milieu from which populations move as they undergo transition. Interpretations of the transition in marriage behavior and its consequences for fertility begin to go astray when they focus unduly on individuals while ignoring issues of social structure and social control. Education is not always related to the autonomy of women. Caldwell's finding that women in South India may be educated by their parents to enhance their marriageability (Caldwell, Reddy, and Caldwell 1982) finds parallels in our Punjabi analysis. Similarly, there is strong support here for a perspective that looks at marriage within the whole context of productive relationships.

This has implications for the way we conceive of the interaction between values and institutions in social change. Education of women, for example, although an innovative institutional feature within the rural setting, seems to have unexpected effects on marriage timing that can be adequately explained only with reference to an extant value system or cultural milieu. The extent to which this system retains its hold on the rural Punjab is evident from the strength of the marriage-process variables in our analysis. All of the hypotheses concerning their effects assume traditional values for the area. Similarly, the association of wage work with younger ages at marriage makes sense when we consider the "risks" to a daughter's marriageability that come from exposure to extra-domestic influences. Rather than suggesting some sort of cultural stasis, however, we argue that change will occur. Our point is that the effects of these institutional components of transition will not be uniform across cultural settings. Innovations will have their initial effects on behavior in ways that are consistent with existing cultural values, and these effects may be surprising.

There is a clear call here for the inclusion of indicators for these effects in social surveys. We have been able to explore these issues only because the AMS was designed to evoke culture-specific features of the marriage process. Such data are rare, however, and in any case the social survey alone should not be expected to provide detailed models that allow us to make cultural sense of these processes (cf. Caldwell, Reddy, and Caldwell 1984). We have also been fortunate in being able to use ethnographic sources in developing our interpretation, although our sources for ethnographic and survey data are often separated by approximately two decades and none of the ethnographies describes the same villages in which the survey was conducted. As a closing comment that cannot be fully elaborated here, we suggest the need to develop methodologies that combine survey and ethnographic data collection in formal and complementary ways.

NOTES

¹ Sahlins calls this type of economy "the domestic mode of production" (1972). Among its characteristics are that it is an economy of production for use—one penetrated with such "noneconomic" claims as ritual, ceremonial, and social diversion and one organized around domestic groups, usually the family.

² Important examinations of the alliance theme appear in Dumont (1983), Parry (1979), and Yalman (1971), and its central importance in Muslim areas is documented in Eglar (1960) and Naveed-i-Rahat

(1981). The nature of status and hierarchy as a cross-cutting feature of social organization and marriage may be examined in Fruzzetti and Öster (1982), I. Ahmad (1978), Korson (1971), and S. Ahmad (1977). See Ortner (1981) for another treatment of women's status in hierarchical settings. Finally, the relationship between wealth flows, marriage, and hierarchy is treated in Tambiah (1973a,b), Caplan (1984), and Gough (1956) in addition to the above sources.

³ Important differences in the definition of biradari suggest that Eglar may have overstated the degree to which patriline and biradari identify the same group. For the Rajputs in Kangra, biradari refers to the group of clans within which marriages may be contracted in equality (Parry 1979:4), and Ahmad (1974:157) suggested that the biradari is a wider group than the immediate patriline in Pakistan as well. In any case, the breadth of the group to which biradari can apply seems to be somewhat dependent on context (Eglar 1960:76), and we will restrict its meaning in this paper to patriline. [Also see Fruzzetti (1982:115-116) for a parallel Bengali level of social organization.]

⁴ Hypergamy refers to marriages in which wives marry into higher status families. Compare with homogamy for marriages between families of equal status and hypogamy in which women marry into lower status families.

⁵ Korson (1979:150-151), in contrast, reports a pattern for urban Pakistan, in which these same exchange marriages are desirable unions. Similarly, Hershman (1981:193) reports that the Sikhs and Hindus in the part of Indian Punjab where he worked regarded such marriages as quintessentially Muslim. The apparent explanation is the extent to which non-Ashraf groups, those descended from Hindu converts, retain the ideology of their ancestors. Evidence here suggests that in rural areas, the extent is great.

⁶ These data constitute a rich body of survey material gathered in the Punjab in 1979 by Sabiha H. Syed (Women's Division, Cabinet Secretariat, Government of Pakistan). Coordination of the project was provided by Peter C. Smith (East-West Population Institute). Similar surveys were conducted at about the same time in Indonesia, the Philippines, and Thailand. The respective investigators were Peter F. McDonald (Australian National University), Mercedes B. Concepcion (University of the Philippines), and Aphichat Chamratthirong (Mahidol University).

⁷ See Suits (1957) and Andrews, Morgan, and Sonquist (1967) for the justification and method of conversion from regression to multiple classification analysis coefficients.

⁸ The standard deviation is 1.04 years, compared with 1.53 to as great as 2.03 in the other three AMS countries.

⁹ For example, the pattern of intergenerational shifts in family relationships in Taiwan shows tantalizing contextual similarities to South Asian societies (cf. Thornton, Chang, and Sun 1984).

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REFERENCES

- Ahmad, I. 1978. Endogamy and status mobility among Siddiqui sheikhs of Allahabad, Uttar Pradesh. Pp. 171-206 in I. Ahmad (ed.), *Caste and Social Stratification Among Muslims in India* (2nd ed.). New Delhi: Manohar.
- Ahmad, S. 1974. A village in Pakistani Punjab: Jalpana. Pp. 131-172 in C. Maloney (ed.), *South Asia: Seven Community Profiles*. New York: Holt, Rinehart, and Winston.
- . 1977. *Class and Power in a Punjabi Village*. New York: Monthly Review Press.
- Andrews, F. M., J. N. Morgan, and J. A. Sonquist. 1967. *Multiple Classification Analysis*. Ann Arbor, Mich.: Institute for Social Research.

- Bloch, M. 1973. The long term and the short term: The economic and political significance of the morality of kinship. Pp. 75-87 in J. Goody (ed.), *The Character of Kinship*. Cambridge: Cambridge University Press.
- Cain, M. 1981. Risk and insurance: Perspectives on fertility and agrarian change in India and Bangladesh. *Population and Development Review* 7:435-474.
- . 1982. Perspectives on family and fertility in developing countries. *Population Studies* 36:159-175.
- Cain, M., S. R. Khanum, and S. Nahar. 1979. Class, patriarchy, and women's work in Bangladesh. *Population and Development Review* 5:405-438.
- Caldwell, J. C. 1982. *Theory of Fertility Decline*. New York: Academic Press.
- Caldwell, J. C., P. H. Reddy, and P. Caldwell. 1982. The causes of demographic change in rural South India: A micro-approach. *Population and Development Review* 8:689-727.
- . 1983. The causes of marriage change in South India. *Population Studies* 37:343-361.
- . 1984. The micro-approach in demographic investigation: Toward a methodology. Paper presented at IUSSP Micro-Demography Working Group Conference, Australian National University.
- Caplan, I. 1984. Bridegroom price in urban India: Class, caste, and "dowry evil" among Christians in Madras. *Man* 19:216-233.
- Carleton, R. O. 1975. Education and fertility. Pp. 115-166 in H. V. Muhsam (ed.), *Education and Population: Mutual Impacts*. Belgium: IUSSP.
- Cherlin, A. J., P. C. Smith, T. Fricke, L. Domingo, T. Adoetomo, A. Chamratrithrong, and S. H. Syed. 1985a. Family influence on the timing of marriage: Evidence from four Asian societies. Paper presented at workshop, Changing Marriage and the Family in Asia, Salaya, Thailand, Feb. 21-24.
- . 1985b. Education and age at marriage: Evidence from four Asian societies. Paper presented at workshop, Changing Marriage and the Family in Asia, Salaya, Thailand, Feb. 21-24.
- Cochrane, S. L. 1979. *Fertility and Education: What Do We Really Know?* Baltimore, Md.: Johns Hopkins University Press.
- Das, V. 1973. The structure of marriage preferences: An account from Pakistani fiction. *Man* 8:30-45.
- Dumont, L. 1983. Hierarchy and marriage alliance in South Indian kinship (originally published, 1957). Pp. 38-104 in L. Dumont (ed.), *Affinity as a Value: Marriage Alliance in South India. With Comparative Essays on Australia*. Chicago: University of Chicago Press.
- Dyson, T., and M. Moore. 1983. On kinship structure, female autonomy, and demographic behavior in India. *Population and Development Review* 9:35-60.
- Eglar, Z. 1960. *A Punjabi Village in Pakistan*. New York: Columbia University Press.
- Fortes, M. 1958. Introduction. Pp. 1-14 in J. Goody (ed.), *The Developmental Cycle in Domestic Groups*. Cambridge, U.K.: Cambridge University Press.
- Foster, B. 1978. Domestic developmental cycles as a link between population processes and other social processes. *Journal of Anthropological Research* 34:415-441.
- Fox, R. 1967. *Kinship and Marriage: An Anthropological Perspective*. Harmondsworth, U.K.: Penguin Press.
- Fruzzetti, L. M. 1982. *The Gift of a Virgin: Women, Marriage, and Ritual in a Bengali Society*. New Brunswick, N.J.: Rutgers University Press.
- Fruzzetti, L. M., and A. Oster. 1982. Bad blood in Bengal: Category and affect in the study of kinship, caste, and marriage. Pp. 31-55 in A. Oster, L. Fruzzetti, and S. Barnett (eds.), *Concepts of Person: Kinship, Caste, and Marriage in India*. Cambridge, Mass.: Harvard University Press.
- Gough, K. 1956. Brahman kinship in a Tamil village. *American Anthropologist* 58:826-853.
- Herlihan, P. 1981. *Punjab Kinship and Marriage*. Delhi: Hindustan Publishing.
- Keesing, R. M. 1975. *Kin Groups and Social Structure*. New York: Holt, Rinehart, and Winston.
- Korson, I. H. 1971. Endogamous marriage in a traditional Muslim society: West Pakistan. *Journal of Comparative Family Studies* 2(3):145-155.
- . 1979. Modernization and social change—The family in Pakistan. Pp. 169-207 in M. Singh Das and P. D. Bards (eds.), *The Family in Asia*. London: Allen and Unwin.
- Lesthaeghe, R. 1980. On the social control of human reproduction. *Population and Development Review* 6:527-548.
- Lindenbaum, S. 1981. Implications for women of changing marriage transitions in Bangladesh. *Studies in Family Planning* 12(11):394-401.
- Mason, K. O. 1984. The status of women, fertility, and mortality: A review of interrelationships. University of Michigan Population Studies Center Research Report 84-58.
- McNicol, G. 1980. Institutional determinants of fertility change. *Population and Development Review* 6:441-462.
- Naveed-i-Rahat. 1981. The role of women in reciprocal relationships in a Punjab village. Pp. 47-81 in T. S. Epstein and R. A. Watts (eds.), *The Endless Day: Some Case Material on Asian Rural Women*. New York: Pergamon Press.
- Ortner, S. B. 1981. Gender and sexuality in hierarchical societies: The case of Polynesia and some

- comparative implications. Pp. 359-409 in S. B. Ortner and H. Whitehead (eds.), *Sexual Meanings: The Cultural Construction of Gender and Sexuality*. Cambridge, U.K.: Cambridge University Press.
- Paige, K. E., and J. M. Paige. 1981. *The Politics of Reproductive Ritual*. Berkeley: University of California Press.
- Papanek, H. 1984. False specialization and the purdah of scholarship—A review article. *Journal of Asian Studies* 44:127-148.
- Parry J. P. 1979. *Caste and Kinship in Kangra*. London: Routledge and Kegan Paul.
- Ryder, N. B. 1975. Fertility measurement through cross-sectional surveys. *Social Forces* 54:7-35.
- . 1983. Fertility and family structure. *Population Bulletin of the United Nations* 15:15-34.
- Sahlins, M. 1972. *Stone Age Economics*. New York: Aldine.
- Slocum, W. L., J. Akhtar, and A. F. Sahi. 1959. *Village Life in Lahore District*. Lahore: University of the Punjab, Social Science Research Centre.
- Smith, P. C. 1980. Asian marriage patterns in transition. *Journal of Family History* 5:56-96.
- . 1983. The impact of age at marriage and proportions marrying on fertility. Pp. 473-531 in R. Bulatao and R. Lee (eds.), *Determinants of Fertility in Developing Countries*. New York: Academic Press.
- Smith, P. C., and M. B. Karim. 1980. Urbanization, education, and marriage patterns: Four cases from Asia. No. 70 in *Papers of the East-West Population Institute*. Honolulu, Hi.: East-West Population Institute.
- Suits, D. B. 1957. Use of dummy variables in regression equations. *Journal of the American Statistical Association* 52:548-551.
- Tambiah, S. J. 1973a. Dowry and bridewealth and the property rights of women in South Asia. Pp. 59-169 in J. Goody and S. J. Tambiah (eds.), *Bridewealth and Dowry*. Cambridge, U.K.: Cambridge University Press.
- . 1973b. From varna to caste through mixed unions. Pp. 191-229 in J. Goody (ed.), *The Character of Kinship*. Cambridge, U.K.: Cambridge University Press.
- Tandon, P. 1968. *Punjabi Century, 1857-1947*. Berkeley: University of California Press.
- Thadani, V. 1978. The logic of sentiment: The family and social change. *Population and Development Review* 4:457-499.
- Thornton, A., M. C. Chang, and T.-H. Sun. 1984. Social and economic change, intergenerational relationships, and family formation in Taiwan. *Demography* 21:475-499.
- Udry, J. R., and R. L. Cliquet. 1982. A cross-cultural examination of the relationship between ages at menarche, marriage, and first birth. *Demography* 19:53-63.
- Vreede-de Stuers, C. 1968. *Parda: A Study of Muslim Women's Life in Northern India*. New York: Humanities Press.
- Yalman, N. 1971. *Under the Bo Tree: Studies in Caste, Kinship, and Marriage in the Interior of Ceylon*. Berkeley: University of California Press.

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