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# Sex Preference Pattern and its Stability in India: 197O-198O

WHILE there are great differences between the developed and developing countries on the issue of sex preference, major differences among the developing countries on this aspect also exist. A consistent or marked preference for sons was not found in a set of the developed countries which included Belgium, Great Britain, Hungary and that United States. It was found in only some of the developing countries. For example, in Korea and Taiwan, and to a slightly lesser extent in India, there was a reasonably clear preference for sons. On the other hand, in West Malaysia, the Philippines and Thailand there appeared to be no clear, systematic indication of preference for sons. However, no country indicated a desire for sons to the exclusion of daughters. This was the main conclusion reached by Freedman and Coombs (1974) on the basis of analysis of late sixties-early seventies data for 17 developed and developing countries. They also found that behaviour does not always match with attitudes. In some developing countries like Korea and Taiwan, fertility behaviour (practice of contraception and the parity progression ratios) was consistent with their expressed preference for sons and attitudes towards having additional children. However, for India as a whole this was not the case, particularly among the younger women.

In Freedman and Coombs' study, the data mainly used for examining the Indian pattern was taken from the 1970 all India Family Planning Survey undertaken by the Operations Research Group, Baroda. Making use of the same data, Sarma and Jain (1974) also observed that the evidence is not very strong with respect to the influence of number of living sons on the actual fertility behaviour and on the attitudes towards having additional children. While examining two sets of survey data, the first from the same 1970 all India Survey of ORG and

the second, collected by the NSS in 1961, Mukerji (1977) also found no meaningful relationship between sex composition of children after a certain parity and the proportion going for the next birth.

These findings, indicating a small effect of sex of child on actual or intended fertility, have important implications for developing countries like India. However, it is notable that there is no adequate direct measure of sex preferences. Inferences about the extent of sex preference and its influence on fertility depend in part on the variables used to index such preferences. Further, the data analysed by these studies refer mainly to the period 1961-70 when there was no clear evidence of rationalization on the part of Indian couples. Contraception was imprecise. Most couples who wanted no more children were not, in all probability, using contraception. This might weaken the effects of sex preference on fertility behaviour. The above considerations underscore the importance of re-examining the subject with more recent data.

This paper is a follow-up and extension of the earlier analysis of 1970 all India survey data, using 1980 data from a similar all India survey to study the nature and intensity of sex preference of children and its relation to fertility behaviour at two points of time. This may also help to understand how stable were sex preferences between 1970 and 1980.

## Data

Data used for this analysis are from the 1970 and 1980 All India Family Planning Studies undertaken by the Operations Research Group, Baroda. The 1970 ORG study was a survey of a national probability sample of 26,054 eligible couples. This included roughly half males and half females for individual interviews (ORG, 1971). In 1980, 34,831 currently married and co-habiting women or their husbands were similarly selected at random for conducting interviews on family planning and its related issues (Khan and Prasad, 1983). The present analysis is based on. published data of the above surveys. The study also made use of published work based on 1970 survey data. Unfortunately, these survey reports do not permit detailed comparative analysis. It may also be pointed out here that the earlier analysis based on 1970 survey data refer to the couples with wives 20-39 years of age, while the 1980 survey report presents such data for all the couples in the reproductive age group (15-44). Further, the required tabulation on fertility indices by sex composition of previous children are not available in the 1980 survey report. Another problem of detailed comparability is the non-availability of common questions on sex preference in both the studies. Despite such problems, broad comparisons are possible to lead a discussion on the issue of son preference and its stability in India.

### Stated Preference

The sex preference for children is usually ascertained by analysing the respon-

dent"s stated preference about the desired or ideal number of children and their sex composition. Several Indian studies based on late sixties and early seventies data, refer to the strong preference for sons among Indian couples. The common desire is to have at least two sons and one daughter. For example, a combination of two sons and one daughter was observed as ideal number of children by Indian Institute of Public Opinion (1967). Lahiri (1974) with the help of National Sample Survey data, showed that in urban India intensity of desire for a son was +33, that is, for every daughter two sons were considered ideal. Based on an All-India Survey carried out by ORG, Baroda, during 1970, it was found that demand for a son was quite strong in the minds of Indian couples, with about 88 percent of the couples indicate that one must have a son. The mean number of ideal sons and ideal children worked out to be 2.2 and 3.7 respectively from 1970 ORG data (Sarma and Jain, 1974, pp. 84-85). Based on the same ORG data, Freedman and Coombs (1974, p. 19) observed that the model preference for those with an ideal of two children is one son, and for those with an ideal of four children the model preference is two sons. Thus, with an even number, the general preference is for balance. When an odd number of children is preferred, a high proportion of women chose two boys for three child family and three boys for the five-child family. The 1970 data further reveals that the most preferred size is three-child family with probably two Sons and one daughter, followed by four-child family with two sons and two daughters (see Table 1). There is thus evidence from these data of a fairly strong

TABLE 1—CHANGES IN GENDER PREFERENCES BETWEEN 1970 AND 1980 : A BROAD COMPARISON

| *Perceived Best Combination of Children 1980 Survey* | | *Modal Number of Sons preferred by Specified Ideal Number of Children 1970 Survey* | |
|---|---|---|---|
| *Combination* | *Percentage* | *Children* | *Sons* |
| One son and one daughter | 25 | 2(8)* | 1 (1,5)** |
| Two sons and one daughter | 34 | 3(30) | 2 (2.0) |
| One son and two daughters | 5 | | |
| Two sons and two daughters | 17 | 4(23) | 2 (2.3) |
| Three sons and one daughter | 6 | 5(7) | 3(2.7) |
| Others | 13 | 6 + (5) | 4 (3.0) |
| | | *Indeterminate (26)* | |

*Figures within parenthesis indicate percentage with *x* ideal number of children.

**Indicates the average number of sons preferred.

SOURCE : (1) Ronald Freedman and Lolagene C. Coombs Cross-cultural Comparison: Data on Two Factors in Fertility Behavior, An Occasional Paper of the Population Council, New York, 1974, pp. 15-19.

(2) M. E. Khan and C. V. S. Prasad, Family Planning Practices in India—Second All-India Survey, Operations Research Group, Baroda, 1983, p. 32.

preference for sons, although such a desire for sons is not to the exclusion of daughters.

As mentioned earlier, the comparative data on desired or ideal number of children and sons are not available from the 1980 survey report. It provides data on best combination of children, perceived by currently married couples, to assess their preference for number and sex of children (Khan and Prasad, 1983, p. 32). The detailed tabulation in relation to all possible sex combinations of children is however not presented in the report. In response to the question regarding their perception of the best combination of children, 52 percent of the couples reported to be in favour of a larger number of sons than daughters and 42 percent wanted equal number of sons and daughters. Only 6 percent of the respondents preferred more daughters to sons. Further analysis of the data reveals that most frequently preferred combination of children is two sons and one daughter (34 percent), followed by one son and one daughter (25). The next important combination of children appears to be two sons and two daughters (17 percent). A broad comparison reveals that the 1980 preference pattern is essentially the same as that for 1970. The preference for sons and that too for at least two sons as a combination, is obvious in the data of both years (see Table 1). However, there appears to be a slight shift in the preference for total size of family. The existing norm, as per the 1980 data, appears to be for three child family, while it was three to four children, on an average, during the early 1970s.

**Attitudes about Future** Child **Bearing**

The stated preferences discussed so far are useful for an inference about the extent of sex preference descriptively, but are not very satisfactory measures of sex preference. Respondents might give socially desirable responses rather than their true preference. There may be inconsistency in responses simply because the respondents have not thought enough about the topic or who do not take the task seriously and respond almost randomly. Moreover, the probable impact of sex preference on fertility behaviour cannot be assessed from such stated preferences.

To infer about the extent of sex preference and its relation to fertility we therefore use two attitudinal measures. The first is the percentage of couples who say they intend to have no more children with a given number and sex of living children. The second measure is the mean number of children intended among couples with a given number and sex of living children. If sex preference exists, we could expect it to be reflected in the respondent's attitudes about future child bearing which, in turn, is likely to affect fertility behaviour. The general line of reasoning is that couples at a particular stage in family building will have differing attitudes and expectations depending on whether or not they have achieved

the sex composition they want. Such differences would permit inferences about sex preference (Freedman and Coombs, 1974, pp. 20-21). However, it may be noted that such measures of sex preference are indirect and based on statistical aggregations of single behaviours or attitudes of many couples. Their accuracy depends on the validity of the assumptions that sex preference within a population being studied is relatively homogeneous and the existence of sex preference acts only to increase the desire to have more children, not to decrease it. Because of these assumptions the measures used may underestimate the effects of sex preference and cannot be used to make inferences about the effects of sex preference on individual fertility decisions. Such a relationship can be detected, to some extent, from the present data, as a great majority of the Indian population has the same sex preference, that is, in favour of boys rather than girls, as is evident from the stated preferences. In a country with higher ideal family size, the second assumption, that the existence of sex preference acts only to increase the desire to have more children not to decrease it, is not strong enough to mask the pervasive effect of sex preference on the intended fertility decisions. Moreover, these attitudinal measures are useful to establish the sex preference in the aggregate or the net effect of sex preference on fertility decisions.

As an alternative to the aggregate behavioural measures, Coombs, Coombs and McClelland (1975) have suggested individual psychological measures of sex preference. These indices are designed to describe only the qualitative nature of the individual's sex preference, but they cannot be used to show that such preferences necessarily have any impact on fertility decisions. Later, McClelland (1979) suggested a new measure based on both psychological measure of sex preference (as in Coombs *et al.*, 1975) and the behavioural, (the respondent's intended fertility stopping rule) to yield quantitative estimates of the impact of sex preference on fertility. Although the new measure overcomes the basic logical problems such as the heterogeneity of sex preference in the population and the riskiness of fertility decisions which parity progression ratios and other behavioural measures ignore, its successful application in the developing countries like India (especially in the rural areas) raises doubts. The practicability of these procedures in a large scale survey is still to be seen (Widmer, McClelland and Nickerson, 1981). Nevertheless, in the mean time, we may still use these two attitudinal indicators to make inferences about the sex preference, at least in the aggregate. It is with this intention that the earlier mentioned 1970 and 1980 all India Survey reports are further examined to understand the sex preference pattern and its influence on fertility decisions.

## Percent Who Want No More Children

Table 2 shows the percent who want no more children for couples with given number and sex of living children in 1970 and 1980. To assess the probable

TABLE 2—PERCENTAGE OF COUPLES WANTING NO MORE CHILDREN BY SEX COMPOSITION OF LIVING CHILDREN IN INDIA, 1970 AND 1980

| *No. of Living Children by Sex* | *percentage of Couples Wanting no More Children* | |
|---|---|---|
| | *1980* | *1970* |
| None | 1.0 | 2.6 |
| One child | 12.7 | 20.2 |
| One daughter | 9.9 | 13.5 |
| One son | 17.2 | 25.8 |
| Two children | 43.3 | 39.9 |
| Two daughters | 25.2 | 21.4 |
| One daughter one son | 55.7 | 45.8 |
| Two sons | 51.4 | 44.0 |
| Three children | 68.7 | 63.2 |
| Three daughters | 34.6 | 37.8 |
| Two daughters one son | 71.8 | 60.5 |
| One daughter two sons | 89.1 | 75.2 |
| Three sons | 77.1 | 48.1 |
| Four or more children | 87.7 | 86.0 |
| Four or more daughters but no son | 41.3 | 40.0 |
| Three or more daughters and one son | 79.9 | 76.0 |
| Two or more daughters and two sons | 96.1 | na |
| One or more daughters and three or more sons | 95.7 | na > 90.0 |
| No daughter but four or more sons | na | na |
| All | 43.6 | 50.7 |

na—Not available

impact of having children of the same sex or of different sex on completed fertility, percent of couples who want no more children are examined in relation to given number and sex of living children. Table 2 indicates that sex preference has not changed much, at least at the aggregate level, during the last ten years. The preference for sons, reported by Freedman and Coombs, is obvious in both

years. The data , especially for the year 1980, indicate a strong preference for sons. For example, even among couples with two living children the percent wanting no more children is much greater for those with two sons or with one son and one daughter than for those with only two daughters (no son). The former two categories do not differ much. Similar pattern of relationship between number of living sons and attitude towards future child bearing is also apparent at other family size levels. The differences are particularly marked after there are three living children in the family. However, it may be noted that such a desire for sons is not to the exclusion of daughter. At each family size level the percent of couples wanting no more children increases with the number of living sons except when all living children are sons. In this category there appears to be a slight increase in the desire for additional children. This pattern is observed especially for the 1970 data. The drive to have at least one daughter is however much weaker than the drive to have at least one son. The maximum jump is observed from 'all daughters' to 'one son' category at each family size level.

## Number of Additional Children Wanted

Further inferences about the extent of son preference and its influence on fertility behaviour can be made by analysing the number of additional children desired by couples with a given number and sex of living children. Like the earlier index, women with no sons might be expected to want more additional children than those who already have one or more sons. In other words, if son preference exists, the mean number of additional children wanted is greater for those with no sons than for those with one or more sons. Since Table 2 indicated that additional fertility is strongly tied to the sex of the children a woman already has, we would expect a similar result in case of the sex preference index under discussion. The figures in Table 3 indicate that there is such a relationship in 1970 and 1980 for the sample of women interviewed in both surveys, although the mean number of additional children wanted is relatively small in all categories, particularly at the higher parities. The differences in the mean additional children wanted are not necessarily very large. Nevertheless, the results indicated a reasonably clear preference for sons. A consistent or marked preference for sons was found in the case of 1980 survey data. For example, in 1980, three children families with no sons wanted an average of 0.9 more child than did those who had two sons (and one daughter). The corresponding figure is of the order of 0.6 in the case of 1970 survey data. Similarly, the difference between those with 'three daughters' (no son) and 'three sons' (and no daughter) varies from 0.1 (1970) to 0.8 (1980). In four or more children families, the 1970 distribution is more or less the same as that of 1980. In 1980, couples with no sons wanted an average of 0.8 more child than did those who had two or more

TABLE 3—MEAN ADDITIONAL NUMBER OF CHILDREN WANTED BY SEX COMPOSITION OF LIVING CHILDREN AMONG INDIAN COUPLES IN 1970 AND 1980

| *Number of Living Children by Sex* | *Mean Additional Number of Children Desired* | |
|---|---|---|
| | *1980* | *1970* |
| None | 3.0 | 3.0 |
| One child | 1.7 | 2.2 |
| One daughter | 1.7 | 2.4 |
| One son | 1.7 | 2.1 |
| Two children | 0.8 | 1.4 |
| Two daughters | 1.2 | 1.4 |
| One son and one daughter | 0.7 | 1.6 |
| Two sons | 0.7 | 1.2 |
| Three children | 0.3 | 1.1 |
| Three daughters | 1.1 | 1.3 |
| Two daughters and one son | 0.4 | 1.2 |
| One daughter and two sons | 0.2 | 0.7 |
| Three sons | 0.3 | 1.2 |
| Four or more children | 0.1 | 0.4 |
| Four or more daughters but no son | 0.9 | 1.0 |
| Three or more daughters and one son | 0.3 | 0.5 |
| Two or more daughters and two sons | 0.1 | na |
| One or more daughters and three or more sons | 0.1 | na } 0.4 |
| No daughter but four or more sons | na | na ) |
| All | 0.9 | 1.4 |

na—not available

sons. This, more or less, matches with a difference of 0.6 child in 1970. 'Unfortunately, we do not have information on additional number of children wanted by those who have 'two or more sons but no daughters' for comparison. Even in two-children families, the mean number of additional children wanted is greater for those with 'two daughters' (and no son) than for those with 'one son

and one daughter' or 'two sons' for the 1980 survey data.

The result is in conformity with the strong desire for sons in India. The slight shift in the preference pattern in favour of a son since the early 1970s, seems to indicate the increased desirability for sons among Indian couples. Apart from the improvement in the quality of data which might have affected the result, it is equally likely that while actual sex preference that prevailed during the '70s, may not have changed much, its impact is much more evident in the couples' behaviour in recent years. A possible explanation for this relates to the changing family size norm over time. With a larger ideal family size, importance of sex preference is considerably less because the probability of satisfying the same is much greater with a larger number of children. As the ideal family size reduces, couples are not only conscious about limiting their families, but arc equally conscious of satisfying their sex preference. This is probably why despite improvement in women's status, and other social developments, a corresponding decline in the strength of sex preference is not indicated. In fact, there is an "illusionary" increase in the same, over the last decade.

From these data we do not know whether the additional children desired are boys or girls. However, supplementary data from 1970 Survey show that women with no sons report a higher mean number of sons wanted than those with no daughters reporting daughter wanted (Sarma and Jain, 1974, pp. 92-93). Similar information from the 1980 survey is however not available.

In drawing conclusions from these attitudinal indices, it should be borne in mind that apart from socio-economic variables, mother's age and child mortality are not controlled to study the relation of sex preference to fertility behaviour. The proportion desiring additional children decreases by age within parity. Another important factor is that in India child mortality is still very high; women may desire a child in order to replace a specific one who died, rather than because they wanted to satisfy a sex preference. This and many issues raised earlier could, to some extent, obscure the relationship under study.

**Desire** for Additional Children and Practice of Contraception

Behaviour indicators of sex preference such as percent currently practicing contraception and parity progression ratios by the sex of living children, are not being studied here. The relevant comparable data for the 1980 survey are not yet available. However, it is interesting to study from the available information whether the couples practice contraception to control their fertility in accordance with the stated desire for additional children for a given number of living children. If it is so, the expressed preferences or desire will be reflected in their fertility behaviour. Table 4 presents the percent of couples practicing contraception by their number of living children and desire for additional children in 1970 and 1980. Although the practice of contraception has increased considerably

TABLE 4-PERCENTAGE OF CURRENTLY MARRIED COUPLES PRACTICING CONTRACEPTION BY THEIR NUMBER OF LIVING CHILDREN AND DESIRE FOR ADDITIONAL CHILDREN IN 1970 AND 1980

| *Desire for Additional Children* | *Percentage of Couples Currently Practicing Contraception* | |
|---|---|---|
| | *1980* | *1970* |
| No. living child | 4 | 2 |
| 1-2 living children | | |
| Want more children | 11 | 6 |
| Do not want more children | 60 | 18 |
| 3 or more living children | | |
| Want more children | *6* | *5* |
| Do not want more children | 63 | 23 |
| All | 35 | *14* |

during this ten year period, the present level of use is only 35 percent. A reasonable level of contraceptive use must exist to come to a *conclusion* on the impact of sex preference on the basis of behavioural indicators. The reason may be that fertility behaviour among couples was not very consistent with their expressed preference for'sons in 1970 data. (Freedmaa and Coombs, 1974, pp. 34-43). In 1980 survey data which exhibits relatively strong son preference in attitudinal indicators, the desire for additional children is consistently related to use of contraception (see Table 4). In one to two children families, the practice of contraception is about five to six times greater for those who want no more children than for those who want more children. Similarly, in three or more children families, the corresponding gap i ds much greater. About 63 percent of the couples who desired no additional children but bad 3 or more living children were using some method of family planning. In 1970, the level of contraceptive use was low, never rising above 23 percent in case of couples with three or more children and who desired no additional children. However, the expressed desire for additional children is related to use of contraception at a given family size.

**Summary and Conclusion**

This paper has attempted to examine the nature and intensity of sex prefe-

ence for children and its relation to fertility behaviour in India. Data for the analysis arc taken from the 1970 and 1980 AH India Family Planning survey undertaken by Operations Research Group, Baroda. The data at two points of time has also helped to examine the stability of sex preference between 1970 and 1980. Despite many limitations of the data which have already been discussed in the text, a broad comparative analysis is made to lead a discussion on the issue of sex preference and its stability in India.

The earlier analysis of 1970 survey data indicated that there was a reasonably clear preference for sons in India, although such a preference was not to the exclusion of daughters. The fertility behaviour was however not that consistent with the expressed preference for sons and attitudes towards having additional children, particularly among the younger women.

The analysis of 1980 data revealed that sex preference had not changed much, at least at the aggregate level, over the last ten years. The 1980 preference pattern was essentially the same as that for 1970. The preference for sons and that too for two sons as a combination is obvious from the stated preferences in both years. The analysis of attitudinal indicators revealed that additional fertility is strongly tied to the sex of the children a woman already has. At each family size level the desire for additional children consistently decreases with the number of living sous, except when all living children are sons, where there appears to be a slight increase in the desire for additional children. This pattern, therefore, also indicates that son preference is not to the exclusion of daughters, although the drive to have at least one daughter is much weaker than the drive to have at least one son. The impact of son preference on the couples' subsequent fertility intention is, however, much mote evident in recent years as a result of change in the family size preference without a corresponding decrease in the preference for sons.

A reasonable level of contraceptive use must exist to conclude on the impact of sex preference on the basis of behavioural indicators of sex preference. The reason may be that fertility behaviour was not that consistent with the couple's expressed preference for sons in 1970. The level of contraceptive use during that period was low, never rising above 23 percent in the case of the couples with three or more children and who desired no additional children. In 1980 survey data which exhibits relatively strong preference for sons, the desire for additional children is consistently related to the use of contraception, which is relatively speaking much higher. With reproduction increasingly under voluntary control, attitudes and preferences may thus play an important role in determining actual fertility.

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