
The aim of this thesis is two-pronged: the first concerns a brief overview of the yet-not-fully-analyzed 1974 World Fertility Survey-Korea (WFS/K) data on sex preference and the second has to do with an excursus on the parental gender-role stereotyping and gender preference as they relate to sex preference and fertility behavior of the individual parents. We do not believe that there exists a mono-causality between sex preference and gender preference, but we do argue here the latter can determine the former as much as the former the latter. Nor do we attempt here to unravel the many factors that enter to make up the parents' sex preference.

Introduction

Fertility preferences are in nature asymmetric in the vicinity of the single-valued first preference statement and the asymmetries provide an important clue to the differences in fertility. These asymmetries reflect the socio-cultural, economic and psychological aspects of the individual parents' habit, perception of the world and the mode of their information-processing at a particular point in time.

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But does attitude such as preference always translate into behavior? We often measure attitude because we sense a strong connection between attitudes and behavior, but unfortunately the former does not always nicely mesh with the latter. Part of this gap between attitude and behavior is attributed to the measurement problems, the incubus in any social research but the problems are particularly serious in the attitude measurement.¹⁾ We are aware that the attitude measured is but one of the many factors that contribute to the behavior, nevertheless attitudes do predict behavior, other things being equal.

The largest fertility preference study ever done is the 1974 WFS/K conducted of a total of 5,421 currently-married women in the age category of 15-49 years. Table 1 illustrates a summary result of the sex and number preferences from the survey.

We notice that variations in number preference virtually go together with those in sex preference across all background characteristics of the female respondents.

The age, residence, educational level and the spouse's occupational categories are all closely related to the levels of parental sex preference strength. Of particular importance

Table 1. Sex (IS) and Number (IN) Preference Scale Values by Mother's Background Characteristics (Data-1974 WFS/Korea)

Background Characteristics	IS Values (N)*	IN Values (N)*
Age	$\chi^2 = 163.8$ df = 24	$\chi^2 = 512.4$ df = 21
Under 25 years	5.34 (397)	3.97 (398)
25-34 years	5.28 (2176)	4.08 (2172)
35-44 years	5.45 (1963)	4.59 (1962)
over 45 years	5.58 (885)	4.98 (884)
Current Residence	$\chi^2 = 226.9$ df = 16	$\chi^2 = 480.1$ df = 14
Urban	5.25 (2839)	4.06 (2838)
Rurban	5.44 (409)	4.56 (408)
Rural	5.56 (2173)	4.83 (2170)
Education	$\chi^2 = 530.0$ df = 56	$\chi^2 = 851.6$ df = 49
No schooling	5.68 (1134)	4.98 (1131)
Primary school	5.43 (2715)	4.48 (2713)
Middle school (new)	5.21 (805)	3.86 (805)
Middle school (old)	5.25 (112)	4.33 (112)
High school (new)	5.01 (481)	3.67 (481)
High school (old)	5.07 (28)	3.82 (28)
College, graduate school	4.86 (138)	3.49 (138)
Other	5.62 (8)	5.25 (8)

1) Marlene E. Henerson, Lynn Lyons Morrises, Carol Taylor Fitz-Gibbon, *How to Measure Attitudes*, Sage Publications, Beverly Hills, 1978, pp. 144-145.

Table 1. Continued

Background Characteristics	.IS Values (N)*	IN Values (N)*
Husband's Occupation	$\chi^2 = 153.4$ df = 40	$\chi^2 = 307.7$ df = 35
No work	5.13 (38)	4.24 (38)
Professional, managerial	5.17 (353)	3.95 (353)
Clerical	5.00 (53)	3.89 (53)
Agricultural	5.49 (2714)	4.68 (2712)
Sales, service	5.31 (917)	4.12 (916)
Unskilled, day laborer	5.25 (398)	4.02 (397)
Number of Children Alive	$\chi^2 = 261.7$ df = 40	$\chi^2 = 891.8$ df = 35
0-1	5.24 (890)	3.83 (891)
2-3	5.30 (1971)	4.16 (1972)
4-5	5.49 (1640)	4.76 (1636)
6-11	5.69 (660)	5.26 (657)
Wife's Birth Place	$\chi^2 = 67.3$ df = 32	$\chi^2 = 121.0$ df = 28
Seoul, Pusan, Kyonggi, Kangwon, Chungchong Kyongbuk, Kyongnam Chonbuk, Chonnam, Cheju Island	5.32 (2151)	4.26 (2152)
North Korea	5.46 (1693)	4.44 (1689)
China, Japan	5.44 (1245)	4.67 (1242)
North Korea	5.30 (172)	4.01 (173)
China, Japan	5.34 (144)	4.30 (144)
Marital Duration	$\chi^2 = 190.0$ df = 64	$\chi^2 = 704.9$ df = 56
0-4 years	5.22 (1109)	3.79 (1111)
5-9 years	5.28 (1017)	4.12 (1014)
10-19 years	5.42 (1642)	4.49 (1639)
20-39 years	5.55 (1648)	4.81 (1647)
Husband's Education	$\chi^2 = 431.9$ df = 48	$\chi^2 = 678.1$ df = 42
No schooling	5.70 (583)	4.13 (582)
Primary school	5.54 (1786)	4.69 (1783)
Middle school	5.39 (1162)	4.37 (1160)
High school	5.36 (1239)	4.22 (1237)
College, graduate school	5.10 (643)	3.76 (644)
Monthly Income	$\chi^2 = 181.3$ df = 32	$\chi^2 = 201.2$ df = 28
Under 5,000 won	5.28 (160)	4.21 (160)
5,000-29,999 won	5.51 (1435)	4.66 (1431)
30,000-49,999 won	5.44 (1605)	4.34 (1605)
50,000-99,999 won	5.26 (1178)	4.09 (1175)
100,000-499,999 won	5.02 (377)	4.01 (377)
Marital Status	$\chi^2 = 80.1$ df = 24	$\chi^2 = 77.8$ df = 21
Currently married	5.42 (5053)	4.39 (5048)
Divorced	5.02 (49)	3.88 (49)
Widowed	5.56 (273)	4.69 (273)
Separated	5.71 (45)	4.62 (45)
Number of Times Married	$\chi^2 = 15.7$ df = 16 n.s.	$\chi^2 = 35.5$ df = 14 p 0.01
Once	5.39 (5195)	4.40 (5190)
Twice	5.41 (217)	4.50 (217)
Thrice	5.56 (9)	5.22 (9)

Table 1. Continued

Background Characteristics	IS Values (N)*	IN Values (N)*
Wife's Age at Marriage	$\chi^2 = 231.7$ df = 32	$\chi^2 = 512.1$ df = 28
11-19 years old	5.58 (1615)	4.87 (1614)
20-22 years old	5.40 (1853)	4.40 (1848)
23-24 years old	5.33 (1052)	4.18 (1051)
No response	5.60 (5)	4.80 (5)
Pre-marital Work Duration	$\chi^2 = 17.5$ df = 14 n.s.	$\chi^2 = 19.0$ df = 14 n.s.
Less than 4 years	5.35 (1590)	4.27 (1589)
5-9 years	5.37 (964)	4.37 (963)
10-21 years	5.32 (166)	4.49 (166)
Post-marital Work Experience	$\chi^2 = 241.2$ df = 24	$\chi^2 = 475.9$ df = 21
No work experience	5.29 (2140)	4.07 (2139)
Household work	5.35 (724)	4.27 (724)
Agricultural work	5.62 (1516)	5.02 (1514)
Work outside home	5.29 (1021)	4.28 (1018)
Post-marital Work Duration	$\chi^2 = 154.6$ df = 32	$\chi^2 = 441.5$ df = 28
Less than 4 years	5.30 (1107)	4.17 (1106)
5-9 years	5.38 (548)	4.44 (547)
10-14 years	5.51 (513)	4.71 (513)
20-40 years	5.70 (725)	5.22 (724)
Wife's Educational Aspiration for Boy	$\chi^2 = 184.4$ df = 32	$\chi^2 = 236.8$ df = 28
Primary school	5.77 (52)	5.19 (52)
Middle school	5.71 (199)	4.95 (199)
High school	5.56 (969)	4.76 (964)
College	5.34 (4047)	4.30 (4047)
Study abroad	5.08 (114)	3.88 (114)
Wife's Educational Aspiration for Girl	$\chi^2 = 334.3$ df = 32	$\chi^2 = 435.9$ df = 28
Primary school	5.79 (213)	5.15 (212)
Middle school	5.66 (713)	4.92 (712)
High school	5.47 (1576)	4.57 (1572)
College	5.26 (2815)	4.14 (2815)
Study abroad	4.93 (64)	3.66 (64)

* All values are significant at one percent level or better unless otherwise specified.

is the inverse relationship that holds between the strength of sex preference and the level of the respondents' educational aspiration for both boys and girls. This is an indirect evidence that the educational level of the parents is intimately associated with the sex bias strength as well as to the number bias strength, a finding consistent with an analysis of the WFS/K data by Kim *et al.*²⁾

2) Nam-Il Kim, B.M. Choi, "Preferences for Number and Sex of Children and Contraceptive Use in Korea," *WFS Scientific Reports* No.22, (June, 1981), p.18.

A direct evidence indicating the prevalence and the strength of the parental son preference over daughter is given by the disproportionate number of parents who is willing to send their sons to college (75.2 percent of the total respondents), compared to the yet much smaller number of those who hope to send their daughters to college (52 percent).

Another point of interest in the table is the high value of the sex preference index (IS) for the respondents under 25 years (5.34) in contrast to that of the sex preference index for the next higher age category of 25-34 years (5.28). In the case of the number preference index (IN) value, the number preference value for the respondents aged less than 25 years is lower than that for the respondents aged 25-34 years, consistent with what one might expect. But in the case of the sex preference, we find the sex bias for boys against girls much stronger in the younger age category. This rather "aberrant" phenomenon points toward the side-effect of the small-family-size norm the government has been stressing thus far.

A majority of those in the younger age category want to limit their family size (the number of children they desire), but it appears that the higher the desire for a small family, the stronger their sex preference grows, since in the circumstances where the parents can have only one or two children, they certainly would want at least one of them to be a boy.

When they cannot have the number of sons they want there may occur instances where the parental sex preference strength overpowers that of their number preference. Therefore, unless we re-direct our number-oriented population policy in the past years to a sex preference-oriented one, any drastic decline in the number of children the parents desire could hardly be effected in the near future.

Table 2 explains the direct association between the sex preference strength and the size of the family the individual parents desire.

Excepting for the two extreme cases where the parents do not desire any child and

Table 2. IS Values by Number of Children Desired (data are from 1974 WFS/K)

Number of Children Desired	0	1	2	3	4	5	6	7	8	9
IS values	5.25	5.19	5.24	5.32	5.45	5.54	5.68	5.67	5.82	5.55
(N)	40	287	945	1360	1060	734	416	179	68	20

where they desire nine children, in Table 2 we observe the general tendency that the strength of the sex preference goes hand in hand with the parental desire for a large family size. That is, in the presence of a strong preference for a particular sex of children, the small family-size norm inculcated by the "stop at two" slogan would be of little use, since sex preference appears to be much more deeply rooted than number preference. The former determines the latter, however the reverse does not seem to hold true.

In an effort to unravel the way the parental sex preference relates to the parents' gender-role stereotype³⁾ or gender preference, a canonical discriminant function analysis has been made with the data from the 1981 son preference survey conducted of 832 women aged 15-49 years and of 389 spouses of the women respondents. The 1981 survey covered five areas in Kyongbuk Province, an area considered to be one of the most conservative within the country in terms of the parental gender preferences. Gender preference differs from sex preference in that the latter refers to the particular preference deriving from expected patterns of reproductive behavior of an individual, while the former has to do with preferences associated with expected patterns of socio-cultural behavior largely determined by the masculinity or femininity of an individual in question. To repeat, sex preference arises from *the biological fact of male or female*, whereas gender preference arises from *the socio-cultural awareness of being masculine or feminine*.

Having differentiated sex preference from gender preference, one notices that gender preference of an individual exerts a substantial influence on sex preference, and in a sense the latter is predicated upon the former. The gender-role stereotyping serves a convenient filtering function for the sex-role stereotyping, because the gender-role stereotype is a societal pigeonhole shaping societal norms and individual attitudes of the parents.

In the 1981 son preference survey, a group of seven questions related to the *gender-associated activities* were asked of the respondents.

3) The gender-role stereotype is an attitudinal or behavioral bias against individuals, a bias largely socio-culturally determined, of particular sex engaged in identical behaviors because of their membership in some specific sexual category.

The seven questions are:

a) gender-related activities

1. to enhance family reputation.
2. to carry on family name.
3. to conduct ancestor worship ceremonies.
4. to bring in money for support of family.
5. to take care of children.
6. to do household chores, and
7. to prepare meals for the family.

Along with the gender-associated activities, a group of nine questions on *gender-related occupations* and a group of 24 questions on *gender-related personality characteristics* were also asked of the interviewees. They are:

b) gender-related occupations

1. judge
2. primary school teacher
3. scientist
4. truck driver
5. typist
6. electrician, machinist
7. mail carrier
8. nurse, and
9. telephone operator

c) gender-related personality

- | | |
|--------------------|----------------------|
| 1. affectionate | 13. obstinate |
| 2. narrow-minded | 14. active |
| 3. querrulous | 15. perservering |
| 4. capricious | 16. adventurous |
| 5. poor at figures | 17. greedy |
| 6. lachrymose | 18. initiative |
| 7. dependent | 19. athletic |
| 8. quick-tempered | 20. contemplative |
| 9. jealous | 21. blunt and obtuse |

- | | |
|--------------------|----------------------------|
| 10. shy and docile | 22. willing to help others |
| 11. fault-finding | 23. ambitious |
| 12. fastidious | 24. vociferous |

All the above questionnaire items on the gender-related activity, occupation, and personality characteristics have been selected, through two rounds of pre-tests done in Taegu City and Sungju County in June, 1981 prior to the main survey for the son preference study. Among those items of a much larger number originally selected for the questionnaire, only those the respondents considered to be the most gender-discriminating have been selected for the main interview. The original items used for the two pretests are from those gender-related personality characteristics in *Measures of Social Psychological Attitudes*⁴⁾ (adjective check list), from those occupation-related items by Dunne's study,⁵⁾ and from the items used for Lee's sex-role stereotypic traits study.⁶⁾

To run the gender-role discriminant function analysis program, all items in the three categories (gender-related activities, occupation, and personality) are divided into four classes or four gender-role discriminant scales (GRDS):

- (I) GRDS 1 V.301, V.303, V.315, (3,4) = (most masculine)
- (II) GRDS 2 V.301, V.303, V.315, (1,2) = (least masculine)
- (III) GRDS 3 V.302, V.304, V.314, (3,4) = (most feminine)
- (IV) GRDS 4 V.302, V.304, V.314, (1,2) = (least femine)

V.301 refers to the activities the respondents answered the male sex should be engaged in such as conducting ancestor worship ceremonies, while V.302 has to do with the type of activities for the female such as doing the household chores. V.303 refers to men's occupation such as judge and truck driver, and in V.304 the respondents answered the typical female occupation such as nurse and telephone operator. V.314 refers to such female personality characteristics as lachrymose and shy and docile,

4) John P. Robinson, Phillip R. Shaver, *Measures of Social Psychological Attitudes*, Survey Research Center, University of Michigan, (Aug. 1970), pp.124-25. Sandra L. Bem's masculine, feminine, and neutral items on the BSRI proved to be not suitable to the 1981 survey, since for many items on the inventory the respondents had difficulties in discriminating from one another.

5) Faith Dunne, "Occupational Sex-stereotyping among Rural Young Women and Men," *Rural Sociology*, (Fall, 1980), pp.404-5.

6) Sung-jin Lee et al, *Sex Preference socialization*. KIRBS, (in press)

while V.315 points to what the respondents answered to be the representative of the male personality characteristics, to cite two of them, "active," and "ambitious."

GRDS 1 represents the most masculine dimension in that the respondents in this category correctly identified over 75 per cent of the all the masculine activity, occupation and personality traits. On the other hand, GRDS 2 represents the least masculine dimension in that those falling into this category could identify correctly only less than 35 per cent of all the masculinity-related items.

The same scaling method applies to the cases of GRDS 3 and GRDS 4. In GRDS 3, respondents could identify over 75 percent of the femininity-associated items and thus this scale represents the most feminine dimension, whereas in the GRDS 4 case, the interviewees could identify correctly some 35 percent of the femininity-related items and hence the least feminine dimension is illustrated by this GRDS 4 scale.

To test whether these four dimensions of GRDS are associated with the strength of sex preference, three separate runs of the canonical discriminant function analyses were performed: the first one for the entire 832 respondents, the second one for those with no or girl preference including the balanced sex preference (those with IS scale values ranging from 1 to 4) and the third one for those with boy preference (those with IS scale values ranging from 5 through 7). Table 3 is the percentage distribution of the IS and the IN scale values for the 1981 son preference survey for Kyongbuk province.

Checking Table 3, one finds that the number of those with girl or balanced preference stands at 119, of which 61 percent (N = 72) had out-of-range group codes and hence could not be subject to the discriminant analysis, and as for those with son preference, only 49 percent (N = 343) of them with within-range group codes could be subject to the

Table 3. IS and IN Value Distributions in 1981 Son Preference Survey

Scale Values	IS Percent (N)	IN Percent (N)
1	0.4 (3)	0.2 (2)
2	0.7 (6)	7.9 (66)
3	1.6 (13)	11.8 (98)
4	11.7 (97)	33.1 (275)
5	53.5 (445)	35.2 (293)
6	27.3 (227)	9.1 (76)
7	3.8 (32)	1.8 (15)
No Response	0.7 (6)	0.8 (7)
Total (N)	100.0 (832)	100.0 (832)
Mean Value	5.18	4.30

discriminant analysis. The reason that a high proportion of the respondents were excluded from the discriminant analysis has to do with the too restrictive grouping method. That is, only those with a high degree of gender-role discriminating attitude have been selected for the GRDS scaling.

Table 4 is the pooled within-group correlation matrix in the discriminant analysis for the entire 832 respondents.

Table 4. Within-group Correlation Matrix for Entire Respondents

	V.301	V.302	V.303	V.304	V.314	V.315
V.301 (masculine activities)	—					
V.302 (feminine activities)	0.07	—				
V.303 (masculine occupation)	0.25	0.06	—			
V.304 (feminine occupation)	0.02	0.02	0.13	—		
V.314 (feminine personality)	0.06	-0.14	0.02	-0.05	—	
V.315 (masculine personality)	0.03	-0.03	0.11	0.07	0.09	—

Understandably, masculine occupation (V.303) is positively associated with masculine activities (V.301), while there is observed virtually no association between the feminine occupation (V.304) and feminine activities (V.302). The contrast between the masculine and the feminine categories gets clearer when we compare the data in Table 4 with those in Tables 5 and 6.

Table 5. Within-group Correlation Matrix for Respondents with Boy Preference

	V.301	V.302	V.303	V.304	V.314	V.315
V.301	—					
V.302	0.07	—				
V.303	0.26	0.06	—			
V.304	-0.01	-0.07	0.16	—		
V.314	0.04	-0.21	0.00	-0.12	—	
V.315	0.04	-0.01	0.10	0.10	0.11	—

In Table 5, the relation between the feminine activities (V.302) and the feminine personality (V.314) gets much more negative than was the case in Table 4, while the positive relationship between the masculine occupation and the masculine activities still sustains or even gets stronger than was the case in Table 4. That is, in Tables 4 and 5, one observes that a strong masculinity-bias prevails, while in Table 6, the strength of the masculinity-bias is less prevalent. For instance, the masculine occupation is as much related to the feminine activities as to the masculine occupation, while the ma-

sculine personality traits find no association with the masculine activities. Even the feminine occupation in Table 4 and Table 5 get the strongest positive association between them in Table 6.

Table 6. Within-group Correlation Matrix for Respondents with Girl Preference or Balanced Preference

	V.301	V.302	V.303	V.304	V.314	V.315
V.301	—					
V.302	0.08	—				
V.303	0.21	0.02	—			
V.304	0.21	0.31	-0.09	—		
V.314	0.17	0.06	0.06	0.14	—	
V.315	-0.03	-0.11	0.23	-0.08	0.05	—

For the respondents with girl preference or balanced preference, the masculinity bias is as strong as the femininity bias.

The following tables illustrate details of the discriminant function analysis made use of in analyzing the gender-role stereotypic attitudes of the all 832 female respondents. The selection method in this instance is the smallest Wilks' lambda, one of the five step-wise methods in which the six variables are entered one by one at each step.

In Table 7(a), V.314 or the variable representing the feminine personality traits has the single most powerful discriminatory power (0.667) and thus has been entered at the first step, followed by V.303 (representing the masculine occupation) which together with the feminine personality variable increases the discriminatory power to the 0.88

Table 7(a). Summary Table of Variables at Each Step and Their Discriminating Power

Step	Variables	Wilks' Lambda	Discriminatory Power
1	V.314	0.333	0.667
2	V.303	0.220	0.880
3	V.302	0.160	0.840
4	V.315	0.120	0.880
5	V.304	0.095	0.905
6	V.301	0.085	0.915

Table 7(b). Canonical Discriminant Functions

Function	Eigenvalue	Percent of Variance	Canonical Correlation	Number of Functions	Wilks' Lambda	X ²	d.f.
1	4.7197	83.48%	0.9083	0	0.085	949.76	18
2	0.7910	13.99%	0.6646	1	0.488	276.60	10
3	0.1432	2.53%	0.3539	2	0.875	51.65	4

level. All six variables considered result in the discriminatory power of 0.915 which is shown as Wilks' lambda in Table 7(b). The low value (0.085) of Wilks' lambda which is an inverse measure of discriminatory power (1-0.085) means that a considerable amount of discriminating power is present among the six variables entered.

The value of Wilks' lambda that obtained before any functions are removed (0.085) increases to 0.488 after some of the discriminatory power has been removed through the first function. This indicates that the discriminatory power of the six variables decreases. After the second function, the discriminatory power of the variables further decreases, however the X^2 value of 51.65 with four degrees of freedom indicates that a statistically significant amount of discriminant information still exists. That is, the six variables are of such a nature that they cannot fully account for the gender-role stereotypes only with the first two functions.

Eigenvalue in Table 7(b) for the first function explains more than 83 percent of the total variance, and that for the second function accounts for about 14 percent of the variance, whereas engenvalue for the third function serves to account for only 2.5 percent of the total variance. Therefore, even though the X^2 value is statistically significant after the second function, the amount of contribution the third discriminant function makes to the total variance is minimal.

Also a noteworthy feature in Table 7(b) is the large value of canonical correlation which is a measure of the individual functions' ability to discriminate among the groups. The first function is extremely closely related to the group variables, and Table 7(c) shows the relative importance of the individual variables within a particular function.

In function 1, the largest canonical discriminant function coefficient (analogous to the standardized B weight in the multiple regression analysis) is that of V.314, therefore function 1 primarily represents the feminine personality traits, and in the second func-

Table 7(c). Standardized Canonical Discriminant Function Coefficient

	Function 1	Function 2	Function 3
V.301	-0.28112	0.31893	0.06264
V.302	0.50316	-0.14758	0.02468
V.303	-0.22352	0.42533	-0.42148
V.304	-0.31222	-0.40086	-0.71214*
V.314	-0.70036*	-0.35301	0.22730
V.315	-0.08306	0.66595*	-0.57931

tion, V.315 contributes the most to the function and hence this function may be named the masculine personality traits function. The third function's largest coefficient is that of V.304 representing the feminine occupational types. Since the third function, as has been explained previously, is of minor importance in the discriminant analysis for this particular case, one may conclude that the feminine and the masculine personality characteristics primarily serve to discriminate between groups.

Table 7(d) represents the mean discriminating scores for each of the four GRDS groups on the two respective functions (function 1 and function 2, with function 3 excluded from consideration).

Table 7(d). Centroids or Canonical Discriminant Functions Evaluated at Group Means for First Two Discriminant Functions

Group	Function 1	Function 2
(I) GRDS 1	-0.30050	1.57191*
(II) GRDS 2	-3.12657	-1.24409
(III) GRDS 3	1.59660	-0.02465
(IV) GRDS 4	-3.51380*	-0.59078

The centroids or group mean scores indicate the group locations as defined by the two respective discriminant functions, namely the feminine and the masculine personality functions.

Table 7(d) points out that the first function serves to distinguish the most feminine group from the other three, whereas the second function helps to identify the most masculine from the other three groups, since GRDS 4 or the most feminine group has the largest mean discriminant function coefficient for function 1 and the GRDS 1 or the most masculine group has the largest mean coefficient value for function 2.

Comparing Table 7(c) with Table 7(d), one again observes that the feminine personality traits (function 1) are largely explained by the least feminine group (GRDS 4), and the masculine personality traits (function 2) are best explained by the most masculine group (GRDS 1).

Following the similar Wilks' lambda stepwise method, two additional discriminant function analyses have been made to learn of the parental gender-role stereotypes of 1) those with girl preference or with balanced preference and of 2) those with strong boy preference.

In Table 8(a) apparently the masculine occupational type has the largest canonical

discriminant function coefficient in the first function, while masculine personality accounts for the largest amount of variation in the second function. In the third function the feminine occupational type registers the largest coefficient. Reading down the second column of Table 8(b), one notices that most of the masculine occupational function gets accounted for by the most feminine group on the one hand, while the masculine personality traits function gets explained by the most masculine group on the other.

Table 8(a). Standardized Canonical Discriminant Function Coefficient for Respondents with Girl Preference or Balanced Preference (those with IS values 1 to 4)

	Function 1	Function 2	Function 3
V.301	0.39198	0.47521	-0.01852
V.302	0.31665	0.16733	-0.17004
V.303	0.54920*	-0.23248	-0.35740
V.304	0.15184	-0.23707	0.94576*
V.314	0.38309	-0.46593	-0.05033
V.315	0.03370	0.85580*	0.25616

Table 8(b). Centroids for First Two Discriminant Functions for Respondents with Girl Preference or Balanced Preference

Group	Function 1	Function 2
(I)	1.35911	2.77104*
(II) GRDS 2	-1.80036	-0.25049
(III) GRDS 3	2.40926*	-0.19632
(IV) GRDS 4	-1.73113	-0.45615

Table 9(a) indicates that V.315 or feminine personality has the largest discriminant coefficient for the first function and for the second and the third functions, masculine personality and female occupation have the largest coefficient values respectively. Therefore, the first function may be named the feminine personality function and the second the masculine personality function. In Table 9(b), both the feminine personality and the masculine personality functions equally serve to separate the least feminine group from the other three remaining groups. For a clearer visualization of the differences in the gender-role stereotypes with differing degrees of sex preferences, centroids in Tables 7(d), 8(b), and 9(b) are plotted along the first two discriminant function dimensions in Figures 1, 2, and 3. The first function is plotted on the horizontal dimension and the second function on the vertical dimension.

Table 9(a). Standardized Canonical Discriminant Function Coefficient for Respondents with Strong Boy Preference (those with IS value 5 to 7)

	Function 1	Function 2	Function 3
V.301	-0.24385	0.33170	-0.09176
V.302	-0.59006	-0.13556	-0.02481
V.303	-0.11273	0.48892	-0.37199
V.304	-0.44505	-0.42064	0.67626*
V.314	-0.79431*	-0.24847	-0.24419
V.314	-0.00031	0.66905*	0.59506

Table 9(b). Centroids for First Two Discriminant Functions for Respondents with Strong Boy Preference

Group	Function 1	Function 2
(I) GRDS 1	-0.54935	-0.88470
(II) GRDS 2	-3.38130	0.39849
(III) GRDS 3	1.58200	0.59844
(IV) GRDS 4	-4.26034*	-2.48476*

Figure 1. Gender-role Stereotype Plotted on Two Discriminant Function Dimensions for Those with IS Values 1 Through 7

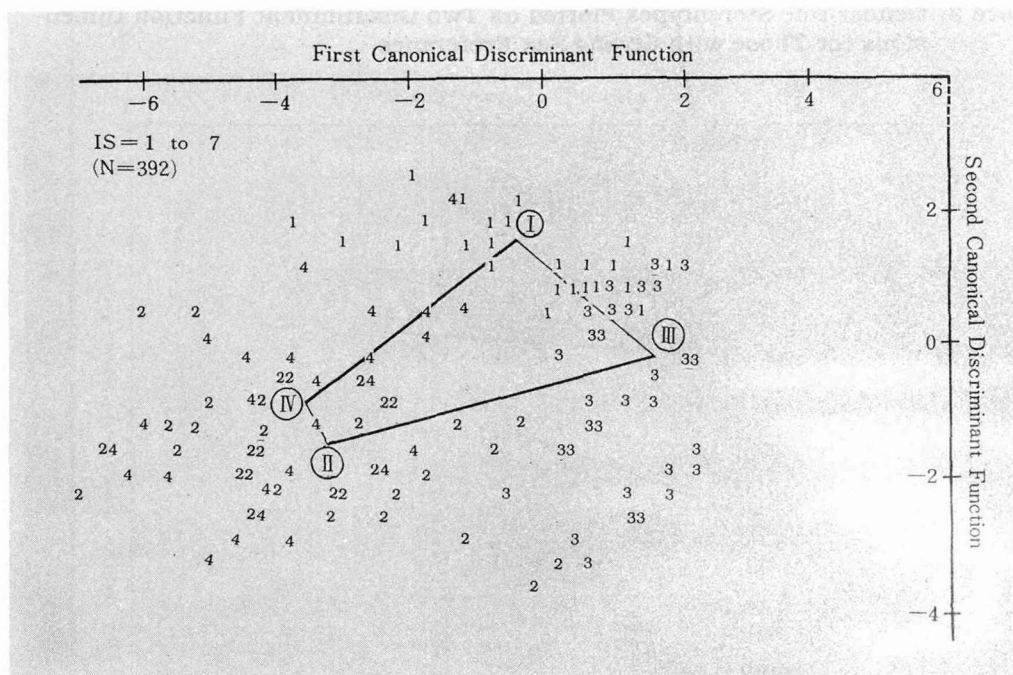


Figure 2. Gender-role Stereotypes Plotted on Two Discriminant Function Dimensions for Those with No or Balanced Sex Preference

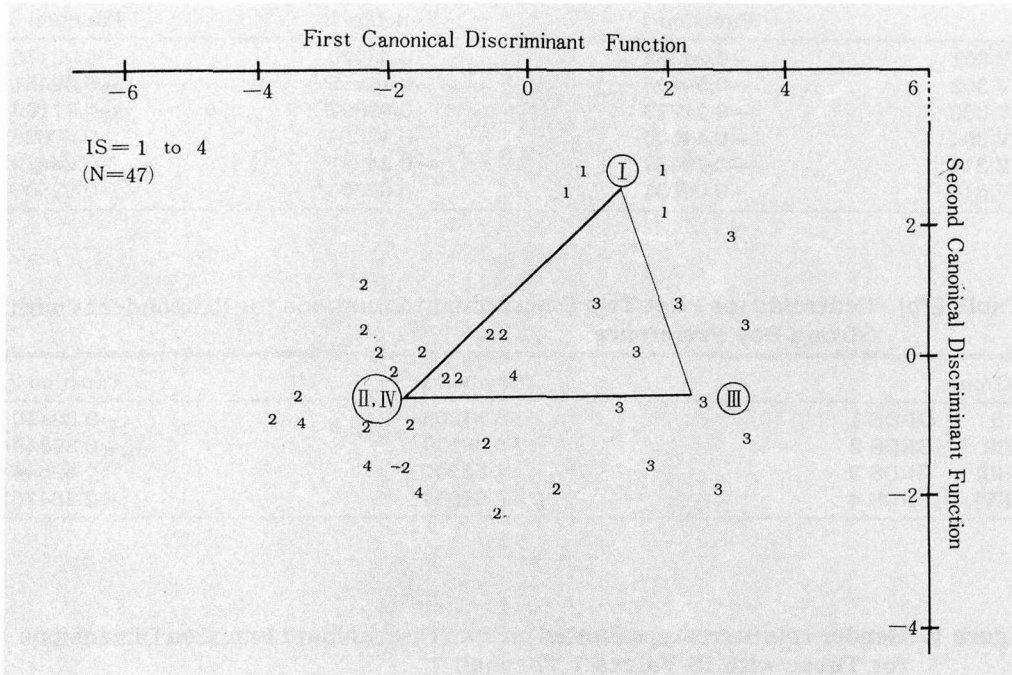
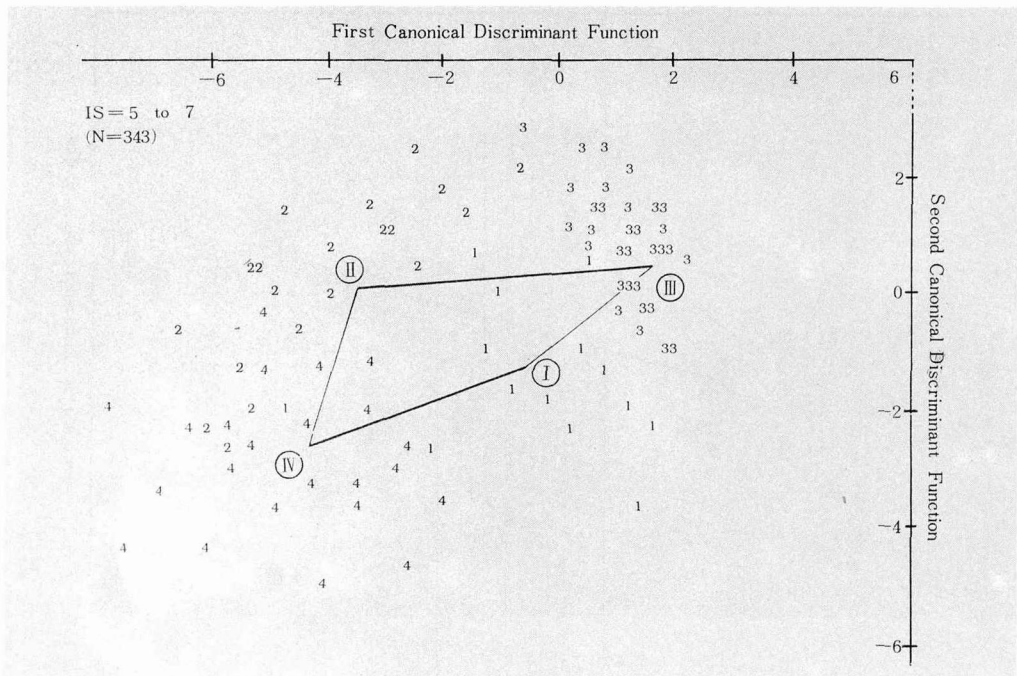


Figure 3. Gender-role Stereotypes Plotted on Two Discriminant Function Dimensions for Those with Strong Sex Preference

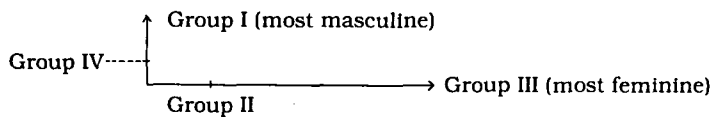


In Fig. 1 where the discriminant scores for the entire 832 respondents are plotted, we find the line between the centroid of Group 1 (most masculine group) and that of Group IV (least feminine group) runs almost parallel to the line connecting the centroid of Group II (least masculine group) and that of Group III (most feminine group) and a similar phenomenon is observed in Fig. 3 too. Whereas in Fig. 2 representing the discriminant score for the respondents with no boy preference or balanced preference, Group II's centroid overlaps that of Group IV, indicating that for the respondents with no boy preference, the distinction between the least masculine and the least feminine group does not exist. Again the centroids in Fig. 2 suggest two distinctive gender-role stereotype dimensions, even though the two dimensions are not orthogonal⁷⁾ to each other. Put another way, the centroids in Fig. 2 do not support the traditional bipolarity assumption that masculinity and femininity form the endpoints of a single continuum.

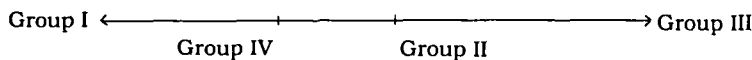
Though the number of cases considered in Fig. 2 is too limited (N=47), it has nonetheless been proven that the respondents with less extreme gender-role stereotype are less sex-biased. On the other hand, the patterns of centroid distribution in Figures 1 and 3 indicate that extreme sex preference is closely associated with the respondents' extreme gender-role stereotypic traits. Why is this so?

Our society has been conferring differential value upon gender-specific work and the division of labor in our society is largely being done on the basis of gender, and this gender-based behavior of ours appears to be one of the main factors that give rise to the preferential attitude for a particular sex of children among those in the child-bearing age.

7) To further help clarify the concept "orthogonal" or more to the point "quadrapolar" in the present instance, readers are referred to the following example. If respondents have no gender preference, their gender-role stereotype would register an orthogonal form of



But if the respondents are strongly gender-biased, then their gender-role stereotype would be a bipolar form of



If we remember that gender is socio-cultural in nature and that *gender* rather than biological *sex* has been the main criterion for the division of labor, any further decline in the strength of parental sex preference would not come about until and unless we “modify” our pre-modern Neo-Confucian gender-based behaviors of yore.