

## SEX-ROLE STEREOTYPING OF OCCUPATIONS AMONG TEACHERS AND STUDENTS

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### *Introduction*

Sex is one of the major factors involved in the division of labour and in the stratification of society on the basis of roles played.<sup>1</sup> Moreover, the factor of sex which is common to all developed and developing societies has resulted in a variety of controversies relating to power and authority. As one's place in the social hierarchy is associated with the occupation one does, groups low in the pecking order are given unpleasant jobs.<sup>2</sup> Even more importantly, the circle, of groups low in social hierarchy being assigned less prestigious jobs, and jobs assigned to lower groups acquiring lower social status works swiftly and surely to establish a cruel social hierarchical structure. Stereotyping of the roles and occupations allotted to different groups thus becomes a means of retaining and justifying the status-quo.

Stereotypes arise when groups of people are constrained to opt or accept preselected roles, on the basis of a limited and narrow range of characteristics

or qualities, ignoring, often deliberately, all the other qualities. Sex-role expectations are the product of stereotyping and are internalized by children at a young age through the process of identification with members of one or the other sex.<sup>3</sup> Almost all social systems to which growing children are exposed, such as the value systems based on conformity and exhibited openly by the family and the peers, the educational system, the mass-media and all the other agents of socialization instill in the child a belief that role stereotyping on the basis of sexes is natural and unquestionable. Thus the concept of 'masculine' and 'feminine', and the norms of gender specific behaviour are learnt by the child.

The tendency of individuals to conform to such role expectations is strong because conforming behaviour is rewarded by approval while any variation in behaviour which contradicts such expectations results in social sanctions ranging from ridicule to ostracism.<sup>4</sup> Conformity is so deep rooted that even with respect to occupational selection, most people make choices typical of their sex and are reluctant to consider career options that do not fit into the stereotype, even if such options are technically available to them.

In a society where deliberate and massive attempts are being made to universalize education both per se, and also for human resource development and for self-reliance in several fields like industrial and agricultural growth, it is essential that important social aspects of universalization of education should not be ignored. After all, education aims at the total development and preparation of the individual to play a role consistent with one's abilities. The "emphasis on education as the cure for all the ills of society has led to an expansion of educational facilities in the hope that this would bring about greater equality in the society."<sup>5</sup> While the basic issue of girls enrollment seems to have received considerable attention, the task of encouraging girls to seek career opportunities primarily on the basis of their talents, aptitudes and performance levels is yet to be taken up

seriously. While education of girls would eventually result in a conflict with girls opting for non-stereotyped roles, planned efforts at creating awareness in girls and their parents and teachers have not taken place.

How are career choices made? A study conducted by the author found that career choices continue to be influenced and shaped by the intervention of family members, peers and teachers.<sup>6</sup> Since these are the very agents who foster the stereotypes, they can hardly be expected to ignore stereotyping and to encourage occupational choices on the basis of natural aptitudes or performance.

In order to understand the role played by the formal educational system in perpetuating or changing gender roles a study was undertaken in the Dahanu region of Thane district. One component of the study was to learn the views of teachers on occupational suitability with respect to sex. Another component, aimed at learning whether students have internalized such attitudes towards occupations. Thus the objectives of this study were :

1. To learn whether teachers hold stereotypes of occupations as suitable or unsuitable with respect to sex.
2. Whether the sex of the teachers has any relation to the stereotype, that is do male and female teachers hold different stereotypes about occupations suitable or unsuitable for the sexes.
3. To learn if there are any differences between girls and boys (students) in the way they rank occupations on a scale of preference.

#### *Sample*

The sample of teachers consisted of forty eight secondary school teachers from Dahanu. Twenty of the forty eight teachers or 42% of the sample were female while 58% were male.

Two hundred and twelve students studying in the eighth standard in five secondary schools in the Dahanu

region comprised the students samples. 32% of the sample were girls and 68% were boys. The age-range of the students varied from 10-17 years with a mean of 14 years.

#### *Data Collection*

Two separate questionnaires for teachers and students were prepared. The questionnaire for teachers listed seventeen occupations, and the teachers were requested to tick separately, the occupations they considered suitable or unsuitable for boys and girls. The students questionnaire consisted of fifty occupations which had to be rated on a five point scale, where one on the scale implied a very favourable attitude, high status, or a strong regard for the occupation, while five on the scale implied a very unfavourable attitude towards the profession. The following illustration depicts the way in which students were asked to rate occupations. the labels for the five columns were adapted from the students' parlance.

"Please rate your opinion about the occupations given below by ticking the appropriate column".

Occu- pation	Very Good	Good	Neutral	Not Good	Very Bad
	1	2	3	4	5
Doctor	1	2	3	4	5

All the occupations listed in the questionnaires given to teachers and students had been collected earlier from students in the Dahanu region, who were asked to write down the names of all the occupations known to them. Of the many occupations, received those mentioned most often were used in these questionnaires. While no constraints on time were imposed, it was found that both students and teachers filled the questionnaires in a period of 35 to 45 minutes.

## Analysis of the Data

## Collected from Teachers

The percentage of teachers stating that an occupation was suitable for boys/girls was computed. It was assumed that if an occupation was considered to be equally suited to both sexes, there would be no statistically significant difference in the percentage of teachers suggesting the occupation to be suitable for girls/boys. On the other hand if there was a difference in percentages of teachers stating a particular occupation as suitable for girls or boys, the extent and direction of this difference could be computed and used as an index of bias.

Table 1 presents the seventeen occupations and the percentages of teachers who found them suitable for girls/boys. The difference between the two percentages is also presented. A positive sign indicates that the occupation was found more suitable for boys while a negative sign indicates the opposite.

Table - 1

**% of Teachers Stating an Occupation to be suitable  
for Boys/Girls and Differences in the  
Stated Suitability for the Two Sexes**

Occupation	% of teachers stating that an occupation is suitable		Difference in the stated suitability for girls/boys
	for boys	for girls	
01. Teacher	77	96	-19
02. Clerk	77	75	2
03. Nurse	42	92	-50
04. Lawyer	90	98	-8
05. Police	81	75	6
06. Doctor	96	100	-4
07. Scientist	100	100	Nil
08. Artist	100	100	Nil
09. D. Servant	35	52	-17
10. Professor	96	100	-4

(contd.)

(contd.)

Occupation	% of teachers stating that an occupation is suitable		Difference in the stated suitability for girls/boys
	for boys	for girls	
11. Agriculture	96	81	15
12. Mechanic	98	75	23
13. Merchant	90	69	21
14. Engineer	100	100	Nil
15. Pilot	100	87.5	12.5
16. Industrialist	100	87.5	12.5
17. Head Master	77	81	-4

The above table shows that three occupations have received the same percentage for boys and girls i.e. these occupations are considered by the sample of teachers to be equally open to both the sexes. These three occupations are that of Scientist, Artist, and Engineer. Teachers have opined that these three occupations are not only equally suited but are also regarded highly as seen by the 100% approval from all the teachers.

There is only one occupation which is stated to be very unsuitable for both sexes and that is of domestic servant. Of the seventeen occupations there is no discrepancy in percentages for three occupations. Seven of the remaining fourteen have been stated as being more suitable for girls and the other seven for boys. Thus for 14/17 or 82% of the occupations there is a discrepancy in suitability on the basis of sex. To test the size of significance of this discrepancy the Chi Square test was undertaken for the attributes, sex and suitability of occupations.<sup>7</sup> The null hypothesis that there is no difference between sex and suitability of occupations was tested at the .05 level of significance. Table 2 presents the corrected Chi<sup>2</sup> values.

Table - 2

Corrected CHI<sup>2</sup> Values at .05 Level of Significance  
Acceptance or Rejection of HO

Occupation	Corrected Chi <sup>2</sup> Values	Result
Teacher	5.69	Reject Ho
Mechanic	8.89	Reject Ho
Pilot	4.44	Reject Ho
Industrialist	4.44	Reject Ho
Merchant	12.67	Reject Ho
Nurse	24.79	Reject Ho
Clerk	0.0	Accept Ho
Lawyer	1.6	Accept Ho
Police	0.24	Accept Ho
D. Servant	2.07	Accept Ho
Professor	0.51	Accept Ho
Headmaster	6.31	Accept Ho
Agriculture	3.61	Accept Ho
Doctor	0.51	Accept Ho
Scientist	*	*
Artist	*	*
Engineer	*	*

\* No difference in percentages for both the sexes.

For six of the 17 occupations, (35%) the null hypothesis that there is no relation between sex and occupational suitability has been rejected, and the alternative hypothesis that sex is related to occupational suitability is accepted. The six occupations teacher, nurse, mechanic, merchant, pilot and industrialist have been shown to be related to sex.

In order to see the direction in which these occupations are related to sex a one tailed Z test was used.<sup>8</sup> The null hypothesis of no relation has been tested against the alternative hypothesis that girls are more suitable for the occupation than boys, and at .05 level of significance the following values were computed.

Table -3

## Z Value at .05 Level of Significance

Occupation	Z Value	Significance at .05 level
Teacher	2.79	Reject HO
Nurse	6.13	Reject HO

Similarly the alternative hypothesis that boys are more suitable for the occupation as compared to girls was tested, and the results are shown in Table 4.

Table - 4

## Z Values at .05 Level of Significance

Occupation	Z value	Significance
Mechanic	3.48	Reject HO
Merchant	2.60	Reject HO
Pilot	2.62	Reject HO
Industrialist	2.62	Reject HO

The alternative hypothesis that boys are more suitable for the occupation was accepted for four occupations i.e. Mechanic, Merchant, Pilot and Industrialist while the alternative hypothesis that girls are more suitable for the occupation was accepted for two occupations namely Teacher and Nurse. Thus it was found that teachers do hold stereotypes about some occupations being more suitable for one sex and not so for the other. Such stereotyping was found for 35% of the occupations studied. The significance of this value (35/100) was tested using the Z test and was found to be significant at the .01 level of significance.



Sex-Role Stereotyping of Occupations among teachers & Students

An attempt was made to find out if the sex of the teachers had any relation to their attitudes about occupational suitability. The attitudes of male and female teachers towards occupational suitability for boys/girls was computed separately and a chi-square test for significance was conducted for each occupation at the .05 level of significance. Results show that the teachers attitudes towards occupational suitability for boys/girls are not correlated with the sex of the teachers. This finding suggests that both the male and the female teachers have the same views regarding stereotypes of occupations.

*Analysis of Data Collected from Students*

The rating given by each student to an occupation was used to determine the average scale value of the occupation. Where no rating was given the mean value was used as an estimate to obtain the average scale value. On the basis of the average scale values, the occupations could be ranked from 1-50, wherein 1 stands for the occupation rated most highly (and which has the lowest mean value because students had to rate 1 for the occupations which were highly favoured and 50 for occupations which were highly disfavoured). Table 5 presents the average scale values, ranks, and the average ratings given by boys and girls to the occupations and the sex-wise differences in these ratings.

Table - 5

**Total Scale Values and Ranks of Occupations  
and the Differing mean ratings  
given by Boys and Girls**

Occupations	Total		Boys	Girls	Boys/Girls
	Means	Ranks	Means	Means	Means
01 Doctor	1.24	1	1.28	1.15	+0.13
02 Sportsperson	1.45	2	1.42	1.57	-0.15
03 Teacher	1.46	3	1.39	1.64	-0.25
04 Engineer	1.48	4	1.56	1.37	-0.19
05 Lawyer	1.49	5	1.59	1.37	+0.22
06 Painter	1.63	6	1.67	1.55	+0.12
07 Author	1.68	7	1.74	1.55	+0.19
08 Professor	1.77	8	1.74	1.84	-0.10

contd.

Occupations	Total		Boys	Girls	Boys/Girls
	Means	Ranks	Means	Means	Means
09 Farmer	1.82	9	1.80	1.87	-0.07
10 Judge	1.83	10	1.80	1.89	-0.09
11 Soldier	1.84	11	1.77	1.98	-0.21
12 Scientist	1.85	12	1.84	1.88	-0.04
13 Manager	1.88	13	1.85	1.91	-0.06
14 Artist	1.91	14	1.96	1.79	+0.17
15 M. L. A.	2.01	15	2.04	1.95	+0.09
16 Sculptor	2.04	16	2.19	1.70	+0.49
17 Nurse	2.08	17	2.36	1.36	+1.00
18 Pilot	2.09	18	2.05	2.19	-0.14
19 Police Insp.	2.10	19	2.13	2.04	+0.09
20 Shop keeper	2.10	19	2.15	2.00	+0.15
21 Agriculture	2.10	19	2.15	2.00	+0.15
22 Sarpanch	2.11	22	2.20	1.91	+0.29
23 Hawaldar	2.13	23	2.17	2.06	+0.09
24 Postman	2.19	24	2.22	2.10	+0.12
25 Talathi	2.21	25	2.21	2.22	-0.01
26 Secretary	2.34	26	2.35	2.33	+0.02
27 Toymaking	2.35	27	2.50	2.23	+0.27
28 Mechanic	2.37	28	2.39	2.31	+0.08
29 Housework	2.37	28	2.70	1.89	+0.81
30 Collect Honey	2.41	30	2.44	2.36	+0.08
31 Driver	2.41	30	2.51	2.20	+0.31
32 Hotel Owner	2.46	32	2.43	2.52	-0.09
33 Wireman	2.49	33	2.63	2.37	-0.28
34 Goldsmith	2.52	34	2.87	1.97	+0.90
35 Business	2.57	35	2.87	2.36	+0.51
36 Tailor	2.63	36	2.79	2.46	+0.33
37 Gavandi	2.68	37	2.72	2.91	-0.19
38 Taxi-driver	2.71	38	2.92	2.76	+0.16
39 Fishing	2.88	39	2.97	2.67	+0.30
40 Clerk	2.92	40	3.01	2.73	+0.28
41 Peon	3.05	41	3.08	3.00	+0.08
42 Burud Wk	3.12	42	3.18	3.00	+0.18
43 Potter	3.27	43	3.45	2.88	+0.57
44 Millworker	3.28	44	3.32	3.19	+0.13
45 Grocer	3.37	45	3.64	3.10	+0.54
46 Cobbler	3.49	46	3.79	3.13	+0.66
47 Hawker	3.54	47	3.83	3.18	+0.65
48 D. Servant	3.57	48	3.81	3.66	+0.15
49 Dhobi	3.65	49	3.91	3.36	+0.55
50 Porter	3.65	49	3.88	3.37	+0.51

The students ratings of various occupations on a scale of preference presented in Table 5 show some notable features. These ratings and the ranks from 1-50 give a scale of occupational ranking. The occupation preferred most or rated highest is that of 'Doctor' and has a scale value of 1.24. The occupations preferred least are that of 'Porter' and 'Dhobi' and have received a scale value of 3.65. It is interesting to note that no occupation received a rating of 1.00 or beyond 3.65, indicating that no single occupation is universally accepted or is condemned universally.

The occupations could be classified on the basis of these ratings into three groups. At the upper end of the scale are professional and agricultural occupations (mean rating 1.24 to 1.85), while the middle section consists of clerical occupations, semi-professional occupations, skilled occupations and business occupations (mean ratings 1.86 to 3.04). Unskilled and traditional work lay at the lower end of the scale (3.05 to 3.65). These divisions have been made by taking the difference between 3.65 the highest mean value and 1.24 the lowest mean value and dividing by 4, to make the middle division the largest. This procedure has been adopted from Trivedi and Pareek's work in categorising rural socio-economic groups.<sup>9</sup>

There is a discrepancy between the ratings given by boys and girls to the same occupations. This discrepancy has been calculated by subtracting the mean ratings given by girls to an occupation, from that given by boys. This has given a discrepancy ranging from -1 to 1 mean rating on the scale. A positive sign indicates that the occupation was more favoured by girls and a negative sign the opposite. No occupation has zero discrepancy, indicating that on each and every occupation the mean ratings of girls and boys have differed. In order to test the significance of the discrepancies a t-test for difference in means was conducted. The following table presents the results of the t-test at the .05 level of significance, for the acceptance or rejection of the null hypothesis that there is no significant difference in the mean ratings given by girls and boys.

Table - 6

Number and percentage of Occupations  
that have and do not have significantly  
different mean ratings given by girls and boys  
(at the .05 level using the t-test)

Significant at the .05 level Reject H <sub>0</sub>		Not significant at the .05 level Accept H <sub>0</sub>	
Number	%	Number	%
19	38	31	62

The above table indicates that of the 50 occupations tested 38% occupations had been rated significantly different by girls and boys, and the extent of the difference in the mean ratings was significant at the .05 level of significance. For 62% of the occupations however this difference in the means was not significant. The nineteen occupations which had been rated significantly different by the students are the following :

Table - 7

The nineteen occupations which have been rated  
significantly different by the students

Lawyer	Clerk	Sculptor	Doctor	Goldsmithy
Hawker	Pilot	Business	Porter	Sportsperson
Potter	Peon	Housework	Tailor	Dhobi/Laundry
Cobbler	Nurse	Sarpanch	Grocer	

## Sex-Role Stereotyping of Occupations among teachers & Students

Of the fifty occupations, only 12 occupations or 24% of the occupations had been rated highly by boys, while girls had rated the remaining 76% occupations highly. Thus girls appear to be more lenient (or less choosy) in their rating of occupations as compared to boys. Of the nineteen occupations which indicate significant differences in the mean ratings, only 2/19 have been rated higher by boys while 17/19 occupations have been rated higher by girls. The two occupations rated higher by boys were that of pilot and sports-person while the remaining were rated higher by girls. The percentage of occupations rated significantly differently by boys and girls (38) was tested using the Z test and the figure was found to be significant at the .01 level.

### *Conclusion*

This study shows that teachers do stereotype occupations for the sexes. This five percent of the occupations listed in the questionnaire were viewed by the teachers in a stereotyped manner as suitable or unsuitable to one sex. However, there was no difference in the attitudes of male and female teachers, that is they held the same stereotype of occupations.

Sex stereotyping of occupations was evident in the differential preference for occupations shown by girls and boys studying in the secondary schools. Girls tended to give overall higher ratings and hence their preference to a majority of the occupations as compared to boys who were selective. The mean ratings given by girls and boys were significantly different for 38% of the given occupations.

Thus it appears that both teachers and students hold stereotypes of occupations as suitable or unsuitable with relation to the sex of the individual. Apart from the fact that such stereotyping is not based on any biological aspects and is only a legacy of social prejudices handed down through generations, stereotyping of occupations on the basis of sex is unhealthy in the sense, that it closes the avenues of

participation in different careers opened by up by the growth of science and technology. Stereotypes, as mentioned earlier, reflect inadequate or incomplete information on the part of those who hold them. Information about careers and occupations can prevent such strereotypes from becoming rigid and inflexible and will open up various fields of work for both girls and boys. Even more importantly, it will pave the way for social mobility so essential for a meaningful human resource development.

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REFERENCES

1. Lenski Gerhard and Lenski Jean, *Human Societies* (McGraw Hill Inc 1978). pg. 348.
2. Bergmann Barbara R, *The Economic Emergence Of Women* (basic Books inc, New York, 1986) pg. 93.
3. McDavid John W and Harari Herbert, *Psychology and Social Behaviour* (Harper and Row 1974 pg. 196.
4. Berkowitz Leonard, *A Survey Of Social Psychology* (The Dryden Press 1975) pg. 548-551.
5. Chanana Karuna (Ed.) *Socialisation Education and women : Explorations in gender identity.* (Orient Longman Ltd; 1988) pg. 1-28.
6. Kulkarni V. G. and Sugra Chunawala, *The Impact Of Science Education on the Role Perception of socio-economically deprived first generation learners.* (Technical Report -10, H. B. C. S.E., T. I. F. R., Bombay 1987).
7. Blalock Hubert M. Jr, *Social Statistics* (McGraw Hill Book Company, 1972) pg. 275-292.
8. Spiegel Murray R, *Theories and problems in Statistics - Schaums Outline series,* (McGraw Hill Book Company, 1972) pg. 167-171, 201-204.
9. Trivedi G. and Pareek udai, *Categorisation of Rural Socio-economic Groups The Indian Journal of Social Work, Vol. XXIV, No. 4 (January 1964).*

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