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Three numbers of the Journal are published every year, in January, May and September and contributions for the publications should be sent to the Editor, not later than the 1st November, 1st March and 1st July respectively.

Contributors are requested to be clear and concise. The length of the articles should not exceed 15 printed pages. The manuscript should be in a final form for the press. The introduction and reviews of literature should be restricted to closely pertinent papers.

The manuscript should be type-written on one side of the page only, with double spacing, and wide margins, including titles, foot-notes, literature citations and legends. Symbols, formulæ and equations must be written clearly and with great care. Too many tables, graphs, etc., should be avoided. Each table should be typed on a separate sheet with its proper position marked in the text in pencil. Two type-written copies of the article should be sent.

Literature citations :—All references to literature cited in the text should be presented together at the end of the paper in alphabetical order of authors' names. Each reference should be given in a standard form as follows :—

- (1) Name(s), followed by initial(s), of author,
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 - (d) Name of author(s), initial(s), year in brackets, title of the book, which should be underlined, volume number, edition, page, followed by place of publication and name of publisher. Where reference has not been seen in the original, it should be indicated by an asterisk, and the name of the abstracting journal or other source should be mentioned in brackets. If the title is in a language other than English, the diacretic signs, etc., should be precisely given as in the original.

Drawings should be on white board in Indian ink. As many of the illustrations as possible should be grouped together so that they may be reproduced as a single unit. Photographs should be in glossy prints with strong contrasts. They are best submitted in the exact size in which it is desired to have them reproduced. Full page drawings and photographs should be made so as to allow reduction to a maximum size of 8" x 5". The name of the author, figure number and the title of the article should be written in pencil on the back of each figure.

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JOURNAL
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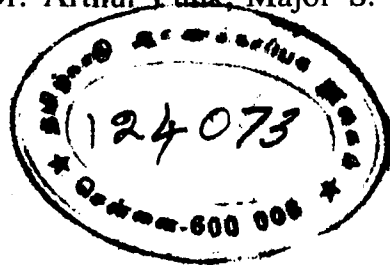
EDITORIAL NOTES

The Fourth Annual Psychology Conference under the auspices of the Madras Psychological Society was held on Saturday, the 27th February 1957, at the University Examination Hall, Marina, Madras. There were 230 delegates from different educational institutions and industrial firms in Madras.

In the forenoon session, there were four addresses. We had the rare privilege of having Dr. Wilder Penfield, O.M., F.R.S., F.R.C.S., Neuro-Surgeon attached to the Montreal Hospital, Canada, to open the Conference by his address on 'Mechanism of consciousness'. Dr. Arthur F. Funk, Ph.D., former Professor of Humanities, University of Florida and now Cultural Affairs Officer, U.S.I.S., Madras, spoke on 'Problems of giving examinations to university students.' The other speeches were on 'Changing ideas and values in industrial management' and 'Mental hygiene—enabling the child to grow.' The former was delivered by Prof. S. K. Bose, Indian Institute of Science, Bangalore and the latter by Major S. Parthasarathy, M.A., Professor of Psychology, Presidency College, Madras.

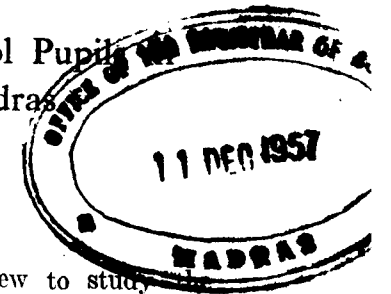
Professor S. P. Adinarayanan, M.A., M.Litt., Ph.D., formerly Professor of Psychology, Madras Christian College, now Professor of Philosophy, Annamalai University, presided over the Conference and delivered his Presidential address on 'Cure for colour prejudice.'

In the afternoon there were sectional meetings under the leadership of Dr. Arthur Funk, Major S. Parthasarathy and Prof. S. K. Bose.



Interests in General Reading of High School Pupils in Some English Medium Classes in Madras

BY
LEELA RAO



Problem

The present study has been undertaken with a view to studying the interests in general reading of High School pupils in some English medium classes in Madras, from the point of view of recognising the individual differences, sex differences and the types of books, magazines and newspapers most popular with these pupils.

The secondary aim is to find out the amount and quality of reading, the reading habits and the main factors that influence the reading interests of the pupils.

The results of the first part of the questionnaire, consisting of books in general are only published here. The results of the second part i.e., of magazines and newspapers will be published subsequently.

Subjects

Subjects included for the study are students in IV, V and VI forms. In order to carry on investigation at this school level under approximately similar conditions, the co-operation of five different schools—three Boys' High Schools and two Girls' High Schools was secured. The total number participated was 220, out of which 110 were boys and the rest girls.

The institutions provided a fairly representative sampling of English reading pupils of average, i.e., of fairly good socio-economic level. Girls represented came from a little better socio-economic status than boys. These particular schools were chosen as far as possible to avoid weighting in favour of one section of population. All the schools were situated in different parts of the city of Madras.

The students who participated belonged to the age group 12 to 18 years; they were adolescents. It was interesting to note the reading interests of these adolescents.

Methods

The questionnaire was the chief source of getting information about the pupils' reading interests. The heads of the schools were interviewed to get information concerning the library made use of by the students, and the contents of the library.

* Based on the thesis approved by the University of Madras in partial fulfilment for the degree of Master of Education (M.Ed.). The research work was done under the supervision of Dr. T. E. Shanmugam, Reader in Psychology, University of Madras.

The Questionnaire

The questions were formed in simple language, and in most of the questions, the answers required consisted in checking one of the several suggested answers. This particular method was found to be the best and the most suitable method for this study. The object of devising this method was to reduce the inaccuracy to a minimum. The questionnaire was designed to elicit the pupils' own estimate of the books read by them, their likes and dislikes in reading and the trend of their reading interests.

The Questionnaire is given below.

PART I

Books in General

Question I.—Name any five books which you have read so far, giving the order of preference.

Question II.—Name any five books you have read last year, giving the author if you remember and your preference in order of liking.

Question III.—Do you read the same book again? Name any two books re-read by you.

Question IV.—Put one cross (X) before each of the following kinds of reading you like. Put two crosses (XX) before each kind you like very much.

Fairy Tales	Detective Stories
Love Stories	Biography
Adventure Stories	House-keeping Books
Stories of Home Life	Garden Books
Travel Stories	Invention
Bible Stories	Electricity
Machinery	Current Events
Books of Knowledge	History
Encyclopedias	Politics
Poetry	Business
Plays	Nature Study
Essays	

Question V.—Mark the literature you like best

1. Having tragic ends (tragedies).
2. Having happy ends (comedies).
3. No preference.

Question VI.—Why do you read the books for?

1. To derive pleasure.
2. To pass leisure.
3. To get information.

Question VII.—If given a choice which book will you buy?

1. Having an attractive picture on the cover.
2. Having a very good collection of short stories.
3. Having an attractive binding, print and attractive paper.
4. Being written by a well-known author.

Question VIII.—What are your sources of getting the books?

1. School library.
2. Public library.
3. Home library.
4. Borrowing from others.
5. Purchasing.

Question IX.—How many hours do you read?

1. During Week days.
2. During Saturdays and Sundays.
3. During Vacation.

Question X.—My two chief reasons for reading the book are

1. Language.
2. Plot.
3. Characterisation.
4. Writing style.
5. Subject matter (content) is good.

As may be seen from the questionnaire there are ten questions in the first part. Each question is set with a particular object in view. The method of scoring also differs from question to question.

If there was any repetition running through the questions, it was not without a purpose. It only sought verification and definite elements in the several statements of the subjects, in respect of their likes and dislikes.

Explanation of the questions and the method of scoring of each question.

Question I.

In answer to the first question, the names of any five books, which the pupils liked best so far, were asked giving the order of preference. The specific issue of this particular question was to find out the most popular books amongst the High School pupils, and the types of books which appeal to them most.

An analysis of the titles named according to the type of their content was made to find out the pupils' preferences in a particular type, like detective stories, adventure stories etc; and a list constituting a total of eighteen types of books read by these students was made.

The same question was studied from another point of view. Not all the books named by the students are equally popular, and a list, however, can be framed of books that are most commonly read by girls as well as boys. To make a list of such popular books, the method of scoring which was followed in this question is as explained below:—

The method of scoring

The method of weightage was followed in the analysis of this question. Each student gave 1, 2, 3, 4 and 5 ranks in order of his or her preference of the books mentioned. These ranks were converted into scores for each book, getting 5, 4, 3, 2, and 1 mark coinciding with first, second, third, fourth and fifth rank. A general list of the names of books by the subjects was made allotting the marks to that particular name according to the rank it received by the subject, in order of preference. Thus the same title, if mentioned by different subjects, got different marks according to the rank mentioned by the subject. Finally all the marks of the same title were added together, and the final rank was given to the title in the final list of the names of the most popular books. The title which got the highest score stood first in the order of popularity.

The lists of the names given by boys and girls were made separately to find out the sex differences.

Question II.

This question was mainly asked to find out what types of books they have read recently, and who were the most popular authors in each type of books.

From their mention of titles of books, the books were divided into different types according to their content. Then in each type, the most popular author was found out by the frequency of mention of the name of the author. The author who was mentioned most frequently got the first rank.

Question III.

The aim of this question was to find out what books are so popular as to be re-read by the subjects, and also to find out how many pupils read the same book.

In answer to this question, again a list of most popular books which are re-read by the students was made on the basis of the frequency of mention. The book which was mentioned most often, was the most popular, and ranked first in the list of re-read books. Separate lists of boys and girls were made.

Question IV.

The aim of this question was to find out what particular items appeal to boys, and what particular items appeal to girls.

Method of scoring.

The subjects were asked to put one cross before each of the kind, he or she liked, and two crosses before each of the kind, he or she liked, very much. These crosses were converted into scores where an item which was marked with one cross got only one mark, and that marked with two crosses got two marks.

Thus the maximum number of marks that a topic or particular item can score, when indicated by 220 pupils as liked most is 440. For the sake of comparison, the scores were expressed in percentages.

The percentage was found out as in the following example.

Suppose "Fairy tales" got a total of 90 marks out of a maximum of 220, then the percentage of its marks would be—

$$\frac{90 \times 100}{220} = 40.9\%$$

Question V.

It was the aim of this question, to find out whether the tragic or comic element is interesting to the present subjects, or whether they do not have any such preference.

Method of scoring.

The total number of cases mentioning the preference for tragedies, or comedies, or for no preference was separately counted, and then it was expressed in terms of percentages.

Question VI.

This question was designed to find out whether reading was done with a particular aim in view, and whether it was a purposeful activity or not. The results were shown in percentages.

Question VII.

The object of asking this question was to find out whether pupils chose the book because of its attractive cover, or its content, or its author, or for its attractive binding or paper, and what was the particular thing to which they attached importance.

Question VIII.

This question was aimed at to find out the main sources of getting the books.

Question IX.

This question sought to find out whether reading was a well-established habit or not, and how much time they devoted on the average, to their general reading, daily, on week ends and during vacation.

Question X.

Here the subject was to give two reasons for reading the book. That is, the subject had to state the most attractive aspect in the reading material.

Pilot study.

The 'Pilot Study' was made to ascertain whether the questionnaire was satisfactory and fit for final study. Twelve students participated; Six from the form VI and Six from the Vth form: Important variables like intelligence, age, socio-economic status were controlled. After collecting the answers, the students were asked to give their opinions on the questionnaire, and to state if there was anything ambiguous or difficult. All of them unanimously agreed that the questionnaire was just right to their standard, and that they did not experience any difficulty whatsoever, except that the question No. 9. created a bit of confusion in their minds, in giving precise answers. Therefore, in the light of the answers written to this question, the above question was suitably amended dividing it into three sub-sections, thus making it very clear and precise.

Results.

The data gathered were analysed and the results of the analysis are given below.

The analysis of the titles named according to the type of their contents indicate the pupils preferences as follows:—

TABLE No. I

Showing the percentages of the different types of books ranked in order, mentioned by boys and girls

S. No.	Names of the types of the books	Boys			Girls		
		Total number	Percentage	Rank	Total number	Percentage	Rank
1	Novels	223	42.88	1	114	20.88	2
2	Detective Stories ...	57	10.96	2	70	12.82	3
3	Adventure	55	10.58	3	63	11.55	4
4	Short Stories	45	8.65	4	28	5.13	5
5	Miscellaneous	26	5.00	5	22	4.03	7
6	Biography	24	4.62	6	5	0.92	12
7	Plays	24	4.62	6	12	2.20	9
8	Western Stories ...	19	3.65	8	...	...	15
9	Fairy Tales	16	3.08	9	24	4.40	6
10	Stories of Animal and Jungle Life	11	2.12	10	2	0.36	13
11	Stories of Mythology and Religion ...	7	1.35	11	8	1.46	10
12	Stories of School Life.	5	0.96	12	175	32.05	1
13	Stories of Air Adventure	3	0.58	13	...	...	16
14	Stories of Scouting ...	2	0.38	14	...	...	17
15	Travel Stories	1	0.19	15	2	0.36	14
16	Books on Mechanics.	1	0.19	15	...	...	18
17	Stories of Wit and Humour	1	0.19	15	14	2.56	8
18	Stories of Social Life...	...	0.0	18	7	1.28	11
Total		520	100	...	546	100	...

From the above table it may be seen that the total number of books named by boys is 520, while the total number of books named by girls is 546. Most popular type of literature is fiction in both the sexes. Novels stand first with boys, and second with girls. 42.88 per cent of the total number of books are novels in the case of boys; and 20.88 per cent of the total number of books are novels in the case of girls. 'Detective stories' and 'Adventure stories' lead the list of stories with boys, while stories of School life are the most popular type of books read by girls. Boys scatter their reading over a wider range and include greater variety of books amongst their preferences, and named 0.58 per cent of books on 'Air Adventure'; 0.38 per cent of books on stories of Scouts, 19 per cent of books on 'Mechanics'; 3.65 per cent of books of 'Western stories', while in these types the percentages of girls' are nil. Stories of Wit and Humour are more popular among girls than boys. 2.12 per cent of the books named by boys are stories of animal and jungle life, while only a 0.36 per cent of this type constitutes the girls' percentage. Figures in 'Biographies' show a noticeable tendency of boys to prefer biographies to a greater extent, than girls. A few girls seem to be interested in books of social life, where boys' percentage is nil.

Not all the books named, are equally popular. A list however, can be framed of books that are most commonly read by girls as well as boys.

The ten books that appeared most frequently in the preferences of each sex are listed below in rank order.

A list of popular books (boys)			A list of popular books (girls)		
Names of books	Total marks		Names of books	Total marks	
* 1. 'Tale of Two Cities' by Charles Dickens ...	195		'Little Women', by M. Alcott.	73	
2. 'Ivanhoe' by Sir Walter Scott ...	85		'What Kate did at School' by Susan Coolidge ...	61	
3. Don Quixote ...	61		'Lamplighter' by Cummins ...	45	
4. 'Les Miserables' by Victor Hugo ...	60		'Tale of Two Cities' by C. Dickens ...	37	
5. 'Sindbad the Sailor' ...	42		'Pollyanna' by Peter, E. ...	33	
6. 'Three Musketeers' by A. Dumas ...	41		'Old fashioned Girl' by M. Alcott ...	29	
* 7. 'Sherlock Holmes' by Conan Doyle ...	36		'Stories from Shakespeare' by Lamb ...	29	
8. 'Treasure Island' by R. L. Stevenson ...	36		'Sherlock Holmes' by C. Doyle.	28	
9. 'David Copperfield' by Charles Dickens	29		'Rebecca' by Daphne DuMaurier ...	26	
10. Adventures of Robinhood.	29		'Desiree' by Selinko ...	25	

* Books appearing in both the lists.

TABLE No. 2

Showing the percentages and their ranks of the types of books read one year earlier

S. No.	Names of the types of books	Boys			Girls		
		Total No.	Per-cent-age	Rank	Total No.	Per-cent-age	Rank
1	Novels ...	165	38.30	1	114	21.39	2
2	Detective Stories ...	52	12.07	2	71	13.32	4
3	Adventure Stories ...	48	11.14	3	76	14.26	3
4	Short Stories ...	41	9.51	4	28	5.25	6
5	Biographies ...	31	7.20	5	5	0.94	11
6	Plays and Dramas ...	19	4.41	6	14	2.63	9
7	Miscellaneous ...	17	3.94	7	27	5.07	7
8	Western Stories ...	16	3.71	8	...	...	...
9	Fairy Tales ...	10	2.32	9	26	4.88	8
10	Stories of Jungle Life ...	7	1.62	10	7	1.31	10
11	Stories of School Life ...	6	1.39	11	127	23.83	1
12	Stories of Mythology and Religion	6	1.39	11	5	0.94	11
13	Book of Wit and Humour ...	6	1.39	11	29	5.44	5
14	Book of Mechanics and Engineering ...	2	0.46	14	...	...	...
15	Poetry ...	2	0.46	14	...	...	...
16	Scout Stories ...	1	0.23	16	...	...	...
17	Book on Aviation ...	1	0.23	16	...	...	...
18	Travel Stories ...	1	0.23	16	...	...	...
19	Social Stories ...	...	0.0	19	1	3.18	14
20	Famous Letters of Great Men ...	...	0.0	20	3	0.56	13

The above table shows that the highest percentage i.e., 38.3 per cent of the total number mentioned by the boys are novels, while the highest percentage of books mentioned by the girls are stories of School life. Detective stories and Adventure stories are next popular in both the sexes. Biographies are more liked by boys than by the girls. The next great sex difference is shown in the case of books of 'Wit and Humour'. Girls read more books of wit and humour than boys. As in the first question, the results of this question also show that the boys scatter their reading over a wider range and include greater variety of books like books on mechanics and engineering, books on aviation, scout stories, stories of travels etc, whereas girls do not refer to these.

From the inspection of the different types of books, the following are the most popular authors in different types of books ranked in order.

Popular Authors in ' Boys '

1. Detective Stories :—

(1) Conan Doyle
(2) Peter Cheyney
(3) Stanley Gardner
(4) Edgar Wallace
2. Novels :—

(1) Charles Dickens
(2) Sir Walter Scott
(3) R. L. Stevenson
(4) Victor Hugo
(5) Anthony Hope
(6) R. M. Ballantyne.
3. Western stories :—

Zane Gray
4. Animal stories :—

Jim Corbett
5. Adventure stories :—

Tennyson
6. Wit and humour :—

P. G. Wodehouse
7. Collection of short stories :—

Shakespeare's stories by Lamb

Popular Authors in ' Girls '

1. Novels :—

(1) Charles Dickens
(2) Daphne Du Maurier
(3) Jane Austen
(4) Anne Mary Selinko
(5) Baroness Orczy
2. Stories of school life :—

(1) L. Alcott
(2) A. Brazil
(3) E. Blyton
(4) Judith Carr
3. Detective stories

(1) Sir A. C. Doyle
(2) Agatha Christie
(3) E. S. Gardner
(4) Peter Cheyney
4. Wit and humour :—

(1) R. Crompton
(2) P. G. Wodehouse
5. Adventure :—

Tennyson
6. Great men's letters ...

...Jawaharlal Nehru's letters to his daughter.

TABLE No. 3
Showing the percentage of the subjects reading the same book again

Total No.	No. not reading the same book	No. reading one book	No. reading two books	Total number reading the same book
	(per cent)	(per cent)	(per cent)	(per cent)
Boys 110...	14.55	9.09	76.36	85.45
Girls 110...	17.27	8.18	74.55	82.73

The above table shows that 85.45 per cent of boys, and 82.73 per cent of girls, read the same book again.

A list of most popular books re-read by the students
according to rank order *

S. No. of Rank	Boys Name of the Book	Frequency	S. No. of Rank	Girls Name of the Book	Frequency
1	Tale of Two Cities ...	20	1	Little Women ...	14
2	Don Quixote ...	8	2	David Copperfield ...	9
3	Ivanhoe ...	5	3	Polly Anna of Orange Blossom	7
4	Merchant of Venice ...	4	4	Tale of Two Cities ...	6
5	Three Musketeers ...	4	5	Sherlock Holmes ...	6
6	Robinhood ...	4	6	Lamp Lighter ...	5
7	Les Miserables ...	4	7	What Kate did at School	4
8	Stories of Noble character	4	8	Stories from Shakespeare.	3
9	Our Bapu ...	4	9	The Mystery of the Missing Necklace	3
10	Sherlock Holmes	4	10	Merchant of Venice ...	3
11	Hamlet ...	3			
12	Stories of Shakespeare.	3			
13	Ali Baba and the Forty Thieves	3			
14	Benjamin Franklin ...				

* Note :—The books reported by less than 3 frequencies are not given in the above list.

TABLE No. 4

Showing the scores in percentages of each type of reading

S. No.	Names of Topic	Boys No. 110			Girls No. 110		
		Total marks 220	Per-cent-age	Rank	Total marks 220	Per-cent-age	Rank
1	Fairy Tales ...	69	31.36	10	116	52.73	5
2	Love Stories ...	54	24.55	16	49	20.45	18
3	Adventure Stories ...	174	79.09	2	146	66.36	2
4	Stories of Home Life ...	34	15.45	22	54	24.55	16
5	Travel Stories ...	75	34.09	8	72	32.73	12
6	Bible Stories ...	93	42.27	6	76	34.54	10
7	Machinery ...	66	30.00	12	19	8.64	21
8	Book of Knowledge ...	113	51.36	3	123	55.91	4
9	Encyclopedias ...	68	30.91	11	92	41.82	6
10	Poetry ...	53	24.09	17	79	35.91	8
11	Plays ...	100	45.45	4	128	58.18	3
12	Essays ...	65	29.55	13	87	39.55	7
13	Detective Stories ...	211	95.91	1	187	85.00	1
14	Biography ...	48	21.82	18	59	26.82	15
15	House Keeping Books ...	30	13.64	23	50	21.82	17
16	Garden Books ...	48	21.82	18	66	30.00	13
17	Inventions ...	99	45.00	5	49	22.27	18
18	Electricity ...	85	38.64	7	14	6.36	22
19	Current Events ...	60	27.27	14	74	33.64	11
20	History ...	75	34.09	8	63	28.64	14
21	Politics ...	43	19.55	20	39	17.73	20
22	Business ...	36	16.36	21	12	5.45	23
23	Nature study ...	60	27.27	14	77	35.00	9

The above table shows, that detective stories are most popular in both the sexes. It ranks first in both the sexes. Adventure stories stand second in the rank of both the sexes. Fairy tales are more popular with girls than boys. Books on inventions, machinery, electricity, and business have special appeal to boys, towards which girls are not much inclined. A fairly marked sex difference is reflected in the favourable attitude of boys towards inventions, electricity, machinery and of girls towards nature study, books on house keeping and poetry.

TABLE No. 5

Showing the percentage of the frequency of mention of the particular type of books

S. No.	Name of type of literature	Boys			Girls		
		No. of cases	Percent-age	Rank	No. of cases	Percent-age	Rank
1	Tragedies	26	23.64	3	22	20	3
2	Comedies	58	52.72	1	59	53.64	1
3	No. preference	26	23.64	2	29	26.36	2
Total		110	100	...	110	100	...

From the above table it is clear that comedies are the most popular form of literature in both boys and girls. 52.72 per cent of boys and 53.64 per cent of girls prefer comedies. Tragedies are the least preferred.

TABLE No. 6

Showing the percentage frequency mention of the purpose of reading *

S. No.	Reasons	Boys total No. 110			Girls total No. 110		
		No. of cases	Percent-age	Rank	No. of cases	Percent-age	Rank
1	To derive pleasure	49	44.54	2	86	78.17	2
2	To spend leisure	24	21.81	3	37	35.63	3
3	To get information	82	74.54	1	88	80.00	1

* Note :—The result in this table will be overlapping as the same subject can claim two purposes in reading a book. Some of the students have mentioned all the reasons for reading the books, and all these cases were taken into consideration.

A study of the above table will reveal that 74.45 per cent of boys and 80 per cent of girls have mentioned "to get information" as their chief purpose in reading the books. Next reason for reading the book is "To derive pleasure". "To spend leisure" is the last reason given by both the sexes.

TABLE No. 7

Showing the percentages of the choice of books

S. No.	Reasons	Boys			Girls		
		No. of cases	Percent-age	Rank	No. of cases	Percent-age	Rank
1	Books having attractive picture ...	2	1.80	3	1	0.90	3
2	Books containing good collection of short stories ...	25	22.75	2	42	38.19	2
3	Books having attractive binding and good cover	0	0	4	0	0.0	4
4	Books written by well-known authors ...	83	75.45	1	67	60.91	1
Total ...		110	100	...	110	100	

When given a choice, both boys and girls have first preference to the author of the book. 75.45 per cent of boys and 60.91 per cent of girls prefer the book written by a well-known author to other things. Next preference is given to the collection of short stories. Only 2 boys and 1 girl have reported that they would select a book having a beautiful picture on the cover. None of the boys as well as girls seem to care for books with attractive binding or good paper.

TABLE No. 8

Showing the percentages of the sources of getting the books*

S. No.	Names of the sources	Boys			Girls		
		No. of cases	Percent-age	Rank	No. of cases	Percent-age	Rank
1	School library ...	70	63.63	3	110	100	1
2	Public library ...	39	35.45	4	40	36.36	5
3	Home library ...	26	23.63	5	57	31.82	4
4	Borrowing from others	71	64.54	2	82	74.59	3
5	Purchasing ...	74	67.27	1	86	78.18	2

All the girls seem to get books from the School library. So School library is the first and the most used source of getting the books. Not all the boys seem to use the school library. 78.18 per cent of girls and 67.27 per cent of boys seem to purchase the books. It stands second in rank in the case of girls, and first in the case of boys. "Borrowing from others" stands second in the case of boys, and third in the case of girls. Public library is not much used. Only 36.36 per cent of girls and 35.45 per cent of boys make use of the public library.

TABLE No. 9

Showing the average time devoted for reading

S. No.	Subject	Week days	Sunday and Saturday	Vacation
		(hours)	(hours)	(hours)
1	Boys ...	0.85	1.95	2.5
2	Girls ...	1.5	2.47	3.3

* The Results will be overlapping, as the same subject can have 2, 3, or 5 sources at a time of "getting the books."

From the above table, it seems that on the average, girls devote more time than boys for reading on week days, Saturdays and Sundays and during vacation. Thus reading seems to be a better established habit in girls than in boys. Even during vacation boys' average time devoted to reading is 2.5 hours per day while girls devote 3.3 hours daily for their reading.

TABLE No. 10
Showing the percentages of the reason for choice of books
(Contents)

S. No.	Contents	Boys			Girls		
		No. of cases	Percent-age	Rank	No. of cases	Percent-age	Rank
1	Language	78	70.91	1	77	70.00	1
2	Plot	19	17.27	4	15	13.64	5
3	Characterisation	17	15.46	5	16	14.35	4
4	Style	31	28.18	3	40	36.36	3
5	Subject matter	75	68.18	2	72	65.45	2
Total		220			220		

70.91 per cent of boys and 70 percent of girls read the book, because its language is good. The next reason for reading the book as shown by the above table is the subject matter of the book in both the cases. Good style stands third in the choice. 'Characterisation' is least preferred by boys, while 'plot' is the least preferred by girls. 15.46 per cent of boys read the book if characterisation is good, and 13.64 per cent of girls read the book if the plot is good.

Summary of Results.

The per cent study is directed towards finding out the reading interests of the high school pupils in some English medium classes in Madras. The chief aim was to find out the types of books which are most popular and interesting to these pupils and to trace the tendency as they show themselves in boys and girls at this high school level. The method adopted was the questionnaire method, and the total number of subjects studied was two

hundred and twenty, out of which hundred and ten were boys and the rest girls.

The results of this study can be summarised as follows.

- (1) Girls on the average, seem to do more extensive reading than boys. The average reading of girls' is slightly higher than that of boys.
- (2) The most popular type of literature is 'fiction' in both the sexes.
- (3) 'Detective Stories' and 'Adventure Stories' are the most popular types mentioned by boys.
- (4) Stories of School life and Home life are most popular among girls. 'Detective Stories' and 'Adventure Stories' stand next to the stories of School life in the case of girls.
- (5) Boys scatter their reading over wider range and include greater variety of books, as books on aviation, scout stories, books of mechanics and engineering and western stories. Girls do not seem to have any preference for any of these kinds of books.
- (6) 'Biographies' are more popular with boys, than girls.
- (7) 'The Tale of Two Cities' by C. Dickens is the most popular book with boys, and "Little Women" by L. M. Alcott is most popular with girls.
- (8) Most popular authors with boys are Charles Dickens, Sir Walter Scott, R. L. Stevenson, Conan Doyle, Peter Cheyney, Erle Stanley Gardner, Edgar Wallace, Zane Gray, J. Corbett, Tennyson and De Foe.
- (9) The most popular authors with girls are Louisa M. Alcott, Angela Brazil, E. Blyton, Susan Coolidge, Judith Cape, Agatha Christie, R. Crompton, Cummins, P. G. Wodehouse, Thomas Hughes, Charles Dickens, Daphne Du Maurier and Baroness Oreyz.
- (10) If the book is very good and appealing, the students like to read it again.
- (11) Comedies are more popular than tragedies.
- (12) The pupils' main object in reading the book is to get information. The next aim is to derive pleasure out of reading.
- (13) Given a choice to select any book, most of the pupils like to select the book written by a well known author.
- (14) School library is the main source of getting the books in girls. Home library, purchasing of the books, and borrowing from others are the common sources of getting the books in both. Public libraries are not much used.

(15) On the average, girls devote more time than boys to the general reading.

(16) 'Language of the book' is an important factor in the reading interests, of both boys and girls.

Discussion of the Results.

The results of this study show that reading is a well-established habit in most of the girls compared to boys. Girls named slightly more number of books than boys. When names of any five books read by them were asked, a few boys could not write even the names of all five books correctly. Some wrote only two names and some wrote only three names of the books.

As girls and boys both proceed from one class to another, their amount of reading showed some increase, and the type of reading also changed, from simple to complex. The simple stories of school life are mostly preferred by the fourth form students. As they go to the higher classes their reading interests also gradually develop as to include complex and more advanced types of novels as 'Rebecca' or 'Desiree'.

There are certain well-defined tendencies in reading interests of both boys and girls, particularly in this group.

1. Girls show more homogeneity in reading taste than do boys. A book that is popular among one group of girls is almost certain to be popular among the other group; for example 'Little Women' is universally popular among girls. But we find no book that has so wide a distribution among boys. The most popular book they have mentioned is the 'Tale of Two Cities' which was more popular because of the recent enactment of this story over the All India Radio programme.

2. Boys specially seem to be fond of reading the books of the current pictures running in the town and that is why 'The Robe', 'Ivanhoe', 'Quo Vadis' and the 'Three Musketeers' are so popular with boys.

3. Boys scatter their reading over a wider range and include a greater variety of books. Detective stories and Adventurous stories where there is vigour, action, physical combat, are more appealing to the boys as in 'The Three Musketeers', 'Sinbad the Sailor' and 'Don Quixote'.

4. The great field for girls' reading is the story of Home Life and School Life. Human interest is the upper most in the case of girls. Every day life of a happy family or a group of interesting girls are the themes most interesting to the girl's mind. It is to this interest of girls that 'Little Women', 'Polly Anna', 'what Kate did at School' and 'The old fashioned girl' owe their extra-ordinary appeal.

5. Boys practically show no interest in girls' books. They are fond of 'Biographies' but all the 'Biographies' mentioned by them were of male heroes eg., 'Our Bapu', 'Benjamin Franklin', 'Jawaharlal Nehru', 'Rabindranath Tagore' etc. But girls show decided interest in books most popularly accepted.

6. Sex difference again is shown in the direction of reading interest. Books on house-keeping are popular with girls while books on machinery, electricity, business and inventions are popular with boys.

Although the range is extensive both in boys and girls, the reading is haphazard and does not show much careful selection of reading material specially in the case of boys.

Girls' schools seem to have a better selected reading material catering to the taste of the children than the boys' schools.

Limitation of the study

In this study, the statistical treatment of the data was confined only to percentages. Attempt was not made to apply stringent method of testing the significance of difference between two frequency of scores, either within the same group or between two groups; for example, comparing boys and girls. To that extent the results derived out of this study are of limited reference and value.

Comparison with other investigations

The general results accord fairly well with those of previous investigations in India and abroad.

In the investigation into the reading interests of children by Terman and Lima in 1927 in America⁽⁷⁾, a list of 20 popular books was made by them. 'Little women' headed the list of the popular books in girls as is the case in this study also. A few other books like 'The Tale of Two Cities', 'Treasure Island' and 'Ivanhoe' are also common to both the lists.

The results of this investigation also agree with the general results of the studies done by Jordan⁽⁶⁾ and others in foreign countries.

Likewise these results agree with the results of the study done by Mrs. Molina Ghosh⁽³⁾ reading interests in books in Allahabad, India. In both the studies pupils show great interest in detective stories and adventure stories and their general trend of liking is the same to some extent.

REFERENCES

1. GATES, A. I. (1947), *The Improving of Reading*, Macmillan & Co., New York.
2. GATES, A. I. (1931), *Interests and Ability in Reading*, Macmillan & Co., New York.
3. GHOSH, M. (1949), 'Reading Interests of High School Girls,' J. Educ. Psychol., Baroda—India.
4. GRAY, W. S. (1933), *Experimental Study in Improving Instruction in Reading*, University of Chicago Press.
5. GRAY, W. S. (1928), *Summary of Investigations Relating to Reading*, University of Chicago.
6. JORDAN, A. M. (1921), *Children's interest in Reading*, Columbia University.
7. Terman, L. M. and LIMA, M. (1931), *Children's Reading*, D. Appleton & Co., New York.

Sthāyibhāva as Aesthetic Sentiment

BY

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The classical Indian aesthetic theory of rasa hinges on the nature of the sthāyibhāva. All the accounts agree that it is an enduring (*sthira*) psychological state of the mind. 'Permanent state' (3) is a fairly correct rendering. But, can we define it in terms of modern psychology? This paper attempts an answer to this question.

Not Feeling or Emotion:

As a permanent mental state it is not to be regarded as a mere feeling or an emotion which, as McDougall points out, is a "fleeting experience." (9, p. 222). Emotions come and go. They "alternate in our mind with so little respite." (7) The sthāyibhāva, on the other hand, is an enduring disposition of the mind.

An emotion, moreover, is a 'moved' or 'stirred up' state of the organism.⁽⁸⁾ "To experience emotion" says McDougall, "is to be excited, to be moved to activity of some sort. . ." (9, p. 148). It involves, consequently, disturbed muscular and glandular activity, e.g., the clenched fists and flushed face of anger and the tears of grief. The sthāyibhāva is not such a disturbed state revealing any overt activity. There is, in it, no ordinary excitement and no striving. It is stimulated by the various determinants (vibhāvas etc.) in an aesthetic situation to give the experience of rasa but in itself it is not an experience. As Abhinavagupta (the classical writer) points out⁽¹⁾ it is a *latent disposition* which can be stimulated by appropriate aesthetic factors. The sthāyibhāva is thus neither a feeling nor an emotion.* As a permanent mental state it is more like, what modern psychology calls, a sentiment.

What is a Sentiment?

A sentiment is not the same as emotion though common speech confuses the one with the other. (9, pp. 221 and 223). A sentiment is a complex mental formation organized after repeated arousal of emotions by an object or group of objects. (9, pp. 225-226 & 10, pp. 421-423). It involves, as McDougall points out, "an individual tendency to experience certain emotions and desires in relation to some particular object." (10, p. 419). The object may be a person, inert thing, collective objects or abstract objects. These

* Dr. A. B. Keith's translation of the word as "dominant emotion" (4) is thus inappropriate.

rouse a large variety of emotions in the individual.* The object is the centre or nucleus of the sentiment and gives it its special character.

It will be seen that these are also the characteristics of *sthāyibhāva*. The *sthāyibhāva* is a structural and functional organization of the mind, a comprehensive system of mental attitudes. It is, as we noted earlier, a permanent state of the mind which engenders a complex set of emotions when roused by the appropriate objects, the determinants etc. As in the case of a sentiment, the uniqueness of a *sthāyibhāva* rests on the objects or class of objects which arouse it. In the *Bhāvādhyāya* of the *Nāṭya Sāstra* Bharata gives a list of eight *sthāyibhāvas*. They can be seen to be unique mental formations which are distinct and separate. A *sthāyibhāva* corresponds to a sentiment.

Psychological and aesthetic sentiments:

But when we describe the *sthāyibhāva* as sentiment we merely emphasize the psychological similarity between the two. It has to be kept in mind that *sthāyibhāva* is an *aesthetic* factor mentioned by the Indian writers in their account of aesthetic experience. *Sthāyibhāva* corresponds to a sentiment but only psychologically. Aesthetically there is a difference between the two.

When we actually feel the emotions, when our sentiments are aroused by an object or group of objects, our experience is not aesthetic: it is merely psychological. Caught in a thunderstorm, we feel afraid; our sentiment of fear is aroused. Or when we see a person in real life trembling with fear, our sentiment of pity is aroused. In both cases, when real-life situations and objects arouse our sentiments we do not feel any aesthetic delight. On the other hand, when we, as spectators, see on the stage a representation of various objects and persons arousing fear in a character we feel the aesthetic experience (the fearful or *bhayānaka rasa*). Our sentiments are aroused in both the cases: but, in the first it is the psychological sentiment and in the second it is, what we may call, the *aesthetic sentiment*.†

We have thus to recognise two types of sentiment, the ordinary, psychological sentiment and the aesthetic sentiment. For the sake of clarity

* "The more complex the sentiment, the wider is the range of emotions it may engender. . . ." (9, P. 224). Also G. F. Stout, "A sentiment is a complex emotional disposition which manifests itself variously under varying conditions," (6, p. 701).

† C. f., S. Alexander, "Such then is the aesthetic impulse, and the emotion or sentiment which accompanies or is part of it is the aesthetic sentiment." (2, p. 27). The confusion between emotion and sentiment in this statement is rather unfortunate but the existence of a specific aesthetic sentiment is recognised by Alexander. "There is" he says, "perhaps a certain suspicion (however little justifiable) of preciosity in the idea of a special aesthetic sentiment or emotion (?), a suspicion which can, however, hardly be suggested where it is recognised that everyman is in his degree an artist and shows his ability to appreciate a work of art or natural beauty." (2, p. 49).

we should restrict the use of the word *sthāyibhāva* to refer only to the 'aesthetic sentiment'.

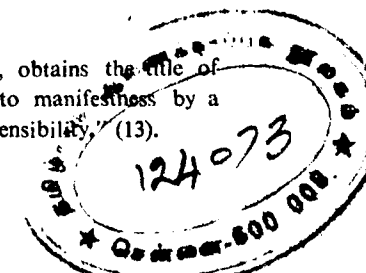
The characters represented in a drama, for instance, do not feel aesthetic experience. Their experience is not *rasa*. They can have only psychological, emotional reactions (*laukika bhāva*). In that respect they are like any of us reacting to real-life situations and objects. It is the spectator of the play who feels *rasa*; his experience is aesthetic. He is the subject of aesthetic experience and the presentation serves as the *aesthetic* stimulus that evokes his *sthāyibhāva*. There is thus a difference between the sentiment of the dramatic character who undergoes a psychological experience (similar to the experience we have in ordinary life) and the *sthāyibhāva* of the spectator who enjoys aesthetically the representation of that experience. The *sthāyibhāva* of the spectator which comes into play in the specific aesthetic situations only and not in the general, real-life situations is the 'aesthetic sentiment'. *Rasa* is produced only when this aesthetic sentiment is aroused.*

Not Instinct or Propensity:

Professor D. D. Vaddekar (Fergusson College, Poona) in a paper entitled "The Concept of *Sthāyibhāvas* in Indian Poetics" (14, pp. 205-212) attempts to show that "the *sthāyibhāvas* are the 'instincts' or 'propensities' of Western psychology (see also⁵). After quoting the relevant passages from the classics which describe the nature of the *sthāyibhāvas*, he points out that, in brief, the *sthāyibhāvas* are the innate, conative-dispositional factors in human nature (14, p. 209). He then goes on to institute a comparison between *sthāyibhāva* and instinct or propensity. For this he gives a few representative passages from the works of McDougall and Drever (14, pp. 210-211). These passages, according to Vaddekar, make clear the fact that "instincts are the *innate prime movers, the dominant conative-dispositional* factors in human nature" (14, p. 211).

Thus, the two concepts, *sthāyibhāva* and instinct are (1) the innate, (2) conative, (3) dispositional factors of the original endowment of human nature; they are, (4) the prime (non-secondary) movers behind all human activities, (5) to which all other activities in human life, intellectual, emotional and volitional are subordinated and contributory and (6) which are the ultimate source and basis of all the human emotions and feelings which are the main stuff of our aesthetic life and enjoyment (14, p. 212). On the basis of these 'similarities' Vaddekar concludes that "the *sthāyibhāvas* of Indian poetics are the 'instincts' or 'propensities' of Western psychology" (14, p. 212).

* "The *sthāyibhāva* when acted upon by the determinants, etc., obtains the title of *rasa*" (12, p. 71). Also, "Love or other *sthāyibhāvas* brought out into manifestness by a determinant, etc., attains to the condition of a *rasa* in the men of poetical sensibility," (13).



It is worthwhile examining this position. The comparison of the description of sthāyibhāva given in the classics with the characteristics of instinct mentioned by modern psychology does bring out certain similarities between the concepts. The sthāyibhāvas are innate tendencies (vāsanās), not acquired attitudes. Instincts are also innate. The sthāyibhāvas are enduring (sthira).^{*} Instincts are also enduring, permanent. But beyond these the comparison seems to fail. Vadekar, however, adds that the sthāyibhāvas are also "conative-dispositional factors in human nature" (14, p. 209). He quotes no authority for this statement. The citations from the classics are arranged by him under six well-defined heads but none of these refers to the *conative-dispositional* nature of the sthāyibhāvas. It is an addition by him.

Perhaps, he may justify this addition by saying that although there is no direct mention by the classics of this characteristic of sthāyibhāva, the general description suggests *indirectly* that this is an adequate description of the concept. Particularly the emphasis on innateness may be taken to indicate that it is an innate disposition which is conative. The answer to this is that this assumption is not valid, that to have an innate disposition is not always to seek a conative outlet and that Vadekar prejudges the issue by already interpreting the concept in terms of McDougall's definition of instinct or propensity.

Nor is this a minor point. The difference between sthāyibhāva and instinct hinges on this important fact. An instinct is a *conative-dispositional* factor which in addition to influencing perception, attention and emotion, determines us 'to act in regard to an object in a particular manner or at least to experience an impulse to such an action' (11, p. 23).[†] A sthāyibhāva has no such influence on our action. It is an aesthetic factor that operates in aesthetic experience. *It does not dispose us to any overt activity or even give an impulse to such activity.*

McDougall himself can be quoted to emphasize this point. "It is of the essence of the aesthetic attitude" says he, "that we do not inquire into the reality of that which we contemplate...the appearance yields an immediate satisfaction and is so presented as to *avoid stirring us to desire and action*... In aesthetic perception we are fully occupied in mere apprehension. . ." (Italics ours) (10, p. 376). The aesthetic activity is a purely contemplative activity. Conation in the ordinary psychological sense has no place in it. How can we say, therefore, that the instinct which is the conative disposition in us, which prompts us to *all our activities* is the same as the sthāyibhāva which comes into operation only in *aesthetic contemplation*?

^{*} As referred to earlier.

[†] Also, "Instincts are the mainsprings of all human and animal activity, the main sources of all the energies manifested in bodily and mental striving," (9, p. 227.)

It is certainly true, as Vadekar points out, that "the two concepts, the sthāyibhāva and instinct, seem to offer surprising similarities of their essential natures." But there are also fundamental differences. We should not be misled by superficial similarities and ignore the differences. The sthāyibhāva is an aesthetic factor which, although universally present as a permanent mental equipment, is unlike what the psychologists call 'instinct'. It is, as we mentioned earlier, a sentiment, though we must distinguish the aesthetic nature of the category by calling it the 'aesthetic sentiment'.

Propensity and Sentiment

It may be argued that an instinct or propensity is basic even to a sentiment^{*} and that if the sthāyibhāva is likened to a sentiment, we may as well trace it back to the instinct or propensity. This argument is based on a misconception regarding the relationship between a sentiment and a propensity. A sentiment is a unique formation, a structural and functional unit of the mind. It is linked with one or more native propensities. But as McDougall says, "Few of the activities of the adult man spring directly from his native propensities; the great majority derive their energy only indirectly from those sources by way of the sentiments within which the propensities are organized." He continues, "I would revert to the crude analogy between the animal organism and a power-driven factory containing a multitude of delicate machines. It is true that the engine in the power-house is the source of the energy by aid of which every operation, however delicate, is accomplished and without which it could not be accomplished; yet to say this is not to say that every operation is performed by the engine in the power-house" (9, p. 227). In other words, although the propensities ultimately supply the energy for all our activities, the sentiments are distinctive organizations of the mind which make use of the propensities in unique combinations.

This will also show how, if Vadekar identifies the sthāyibhāva with the instinct or propensity, he will have to specify at least eighteen sthāyibhāvas (9, pp. 97-98) a number unheard of by the aestheticians of India. The principal sentiments are fewer (9, pp. 227-238). The aesthetic varieties are the eight or ten sthāyibhāvas.

It seems appropriate therefore, to call the sthāyibhāvas the 'aesthetic sentiments'. Such a designation does justice to the facts of psychology and aesthetics.

REFERENCES

- (1) ABHINAVAGUPTA, *Abhinava Bharati* (G.O.S. Edn.), p. 284.
- (2) ALEXANDER, S., *Beauty and other forms of value*,

^{*} Cf., W. McDougall, "I have used the word 'sentiment' to denote such instances of the specialised direction of some propensity upon some one object. . ." (9, p. 208.)

- (3) GEORGE, C. O. HASS., Translation of the classical work 'Dasarūpa', Columbia University Press.
- (4) KEITH, A. B., *The Sanskrit Drama*, p. 315.
- (5) NAIDU, P. S. (1940). 'The Rasa Doctrine and the Concept of Suggestion in Hindu Aesthetic's J. Annamalai University, Vol. X, No. 1.
- (6) STOUT, G. F., *A Manual of Psychology*, p. 701.
- (7) SHAND, A. F., *Foundations of Character*, p. 178.
- (8) WOODWORTH, R. S. (1946), *Psychology*, Methuen & Co., London, p. 410.
- (9) WILLIAM McDUGALL (1948), *Energies of Men*, Methuen & Co., London.
- (10) WILLIAM McDUGALL (1948), *An Outline of Psychology*, Methuen & Co., London.
- (11) WILLIAM McDUGALL (1948), *Introduction to Social Psychology*, Methuen & Co., London.
- (12) ——— *Nāṭyaśāstra* (G.O.S. Edn.).
- (13) ——— *Sāhitya-darpana*, Chap. III, I, Text.
- (14) 18th Indian Philosophical Congress, Lahore (1943) Darpana Proceedings, Part II.

Social Adjustment of a group of Early Adolescent boys *

BY

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The Problem:

The present study is part of an investigation on the 'Psychological problems of the transition from adolescence to adulthood.' The objective of the main study was to find out whether there were significant changes in the adjustment of adolescent boys to different areas of life as they advance from adolescence to adulthood. Several workers since the time of Hall, have held that adolescence is a period of emotional strain and stress, leading to disturbed social relations, conflicts, inferiority feelings, etc. According to this view, this disturbed condition of the adolescent improves with the approach of adulthood. The main investigation was thus concerned with verifying the above hypothesis and to study the exact manner of the transition, if there is any.

This paper does not report the results of the complete study. Here, an attempt is made to present only a part of the results viz., the pattern of adjustment revealed by a group of early adolescents (ages 14 to 16) and the roles played by different factors like age, economic status, educational background of the parent, rural and urban variation, and attitude to religion, if any. The subjects of the main investigation were divided into three groups, early adolescent, late adolescent, and early adults. So, the present paper is an attempt to present the findings regarding the adjustment shown by the group of early adolescent subjects.

The subjects:

The subjects of the group were 238 high school and college boys of Madras State, 65 of them being 14 years old, 85 of them 15 years old and 88 of them 16 years old. The subjects were drawn from all economic levels, and educational backgrounds. The groups also included boys drawn from rural areas. A large majority of them were Tamil speaking boys. The boys also belonged to different religions. All the boys had both parents alive and none of them was an *only* child. Every effort was made to make the group truly representative of the school and college-going adolescent population of the region.

The technique:

The technique employed in the investigation was the 'Adjustment Inventory.' The Inventory was prepared along the lines of inventories standardised by other investigators (6, 1). It was felt necessary to prepare a new inventory

* This research work was done under the guidance of Dr. G. D. Boaz, Professor of Psychology, University of Madras.

with the majority of the questions being drawn from these standard inventories, and supplemented by newly framed items. It was not possible to employ any of the standardised inventories, as none of them covered all the aspects which the investigator wanted to include.

The inventory was finalised after preliminary studies and in the final form consisted of 110 items. These items pertained to four major aspects of life; viz., (A) Adjustment to Home, (B) Adjustment to School or College, (C) Hetero-sexual adjustment, (D) Attitude to future and future success.

The first three major aspects were sub-divided as follows:

A. Adjustment to home was further divided into (i) Adjustment to parents, (ii) Adjustment to siblings, and (iii) Adjustment to the physical conditions of the home like its appearance, economic status, etc. Since parents constitute a very important aspect of the home, an effort was made to analyse the very complex parent-child relationship into sub-areas (4). These areas are :—

- (a) Dominance-submission ;
- (b) Acceptance-rejection ;
- (c) Attitude to personal attributes and qualities of parents ;
- (d) Dependency on parents.

B. Adjustment to school or college was considered under the following heads:

- Adjustment to studies and related activities.
- Adjustment to teachers.
- Adjustment to classmates.

C. Hetero-sexual adjustment was considered under the following heads;

- Attitude to marriage.
- Attitude to discussion of sex topics.
- Movements with members of the other sex.
- Reactions in the presence of girls.

D. Attitude to future and future success:

- This aspect was not divided any further.

Schemes of answering and scoring:

The inventory employed a three category scheme of answering. The dichotomous 'YES' or 'NO' scheme was felt to be inadequate, and at the same time, any scheme employing a large number of categories like 5 or 7 was found to involve the subjects in difficulties. So, after the preliminary studies, the following scheme was arrived at. Against each question, were provided three answers, 'usually', 'sometimes' and 'never'. This scheme was found to be easily comprehensible to the subjects, in the preliminary studies. Out

of the three answers, one was assumed to indicate a comparatively healthy adjustment, one indicating a comparatively poor state of adjustment and the third an intermediate stage. For some of the questions 'never' was assumed to indicate a healthy adjustment while for the others 'usually' was assumed to indicate healthy adjustment. The answer 'sometimes' was always assumed to indicate an intermediate state of adjustment.⁽¹⁾

In scoring the answers, it was decided to score each 'healthy answer' as 0, each intermediate answer as 1, and each ill-adjusted answer as 2; thus, a higher score indicates a more mal-adjusted state. A complete scoring key was prepared for the questionnaire. An index of adjustment was calculated for each individual, in each area separately.

Reliability of the inventory:

The measure of reliability employed was the criterion of 'internal consistency.' This method has been used by several investigators in preference to the usual quantitative methods (1, 5). The method consists in including pairs of 'opposed' questions at widely separated places in the body of the inventory and checking up the consistency of answering. A number of such pairs were introduced in the body of the questionnaire and all cases showing inconsistency were eliminated.

An attempt was also made to determine the re-test reliability of the inventory by administering it a second time to a group of 40 subjects. The result showed a correlation of 0.86 between the first and second administrations. The split-half reliability could not be determined as it was felt that the items of the questionnaire were not of a uniform homogenous nature.⁽³⁾

Other variables studied:

Age: Chronological age was the main variable in the investigation. So, the influence of this factor on social adjustment was also studied. Comparative study has been made of the three age groups 14, 15 and 16 in all areas of adjustment.

Economic status:

The economic status of the individual has often been found to be an important factor affecting social adjustment. So, in this investigation an attempt was made to include this variable. However, since the main variable of the investigation was only chronological age, the role of this factor was not studied in detail. A comparative study was made by comparing the two most widely separated groups, those from families with a monthly income of Rs. 500 and more and those from families with a monthly income of Rs. 100 and below. There were 41 subjects in the first category and 48 in the second. These two groups are described respectively as High Income Group and Low Income Group.

Educational background of the father :

Another factor which has been found to affect social adjustment, especially adjustment to the home, is the educational background of the parents. It was decided to use the educational standards of the father as the index, since very few of the mothers of the subjects were found to be educated. Here again, no attempt was made to study the factor in detail. It was decided to make only a comparison of the two extreme groups—sons of uneducated parents and sons of University graduates. There were 48 and 75 subjects in the two groups, respectively.

Rural-urban variation :

Rural-urban variation is another factor which has been found to affect social adjustment. So, it was decided to make a comparative study of boys purely from rural areas and boys purely from urban areas. The numbers in the two groups, however, was slightly disproportionate; there were 37 rural boys and 106 urban boys.

Attitude to religion :

In addition to the above factors, it was felt by the investigator that another factor which has rarely been studied, might be found to play a role in the adjustment of adolescents. This factor was the attitude of the adolescent to his religion. It was decided to make a comparative study of boys who are rather favourable to religion and boys who are rather unfavourable to religion.

The attitude of the adolescents to religion was measured as follows:— Within the body of the Adjustment Inventory, six questions were introduced at different places, pertaining to religion. These questions were also scored like all other questions; but the scores obtained on these questions were not included in the total mal-adjustment score. On the basis of the answers to these questions, an index of attitude to religion was calculated for each subject. The maximum score (showing mal-adjustment) any one could get was 12 and the minimum 0. For selecting the two groups, the group most favourable to religion and the group most unfavourable to religion the following procedure was adopted.

All subjects getting a score of 1 and less were grouped as favourable to religion and all the subjects getting scores of 6 and more were grouped as unfavourable. The groups were so chosen to make them comparable in size. There were 62 subjects in the favourable group and 46 in the unfavourable group.

Statistical measures employed:

The statistical measures employed in this investigation were only the simpler measures of means, standard deviation and critical ratios. Advanced correlational and factorial analyses were not attempted.

RESULTS⁽¹⁾**Age as a factor in adjustment:***Age differences in adjustment to home :*

Significant differences were found among the three age groups 14, 15, and 16 in adjustment to the following aspects of the home.

Showing average mal-adjustment scores² and standard deviations for the three age groups to the different aspects of the home.

TABLE No. 1

Ages Group		Dom.-Sub- mission (1)	Acc-Rejec- tion (2)	Attitude to the personal qualities of parents (3)	Dependency (4)	Siblings (5)	Physical con- ditions (6)
14-year old	Ave. ...	9.95	5.78	2.98	4.51	2.36	4.84
	S.D. ...	4.95	3.72	2.84	1.3	1.61	2.07
15-year old	Ave. ...	11.53	7.53	3.42	3.95	2.06	4.25
	S.D. ...	4.84	4.24	2.44	1.68	1.66	2.34
16-year old	Aver. ...	10.46	6.34	3.30	3.93	2.04	3.91
	S.D. ...	5.54	4.16	2.36	1.42	1.61	2.22

TABLE No. 1-A

Showing the critical ratios of differences in mean mal-adjustment scores among the age groups*

Ages compared		Dom.-Sub- mission (1)	Acc-Rejec- tion (2)	Attitude to the personal qualities of parents (3)	Dependency (4)	Siblings (5)	Physical con- ditions (6)
14 & 15	...	1.95	2.59	0.97	2.33	1.11	1.64
14 & 16	...	0.60	0.87	0.73	2.64	1.23	2.66
15 & 16	...	1.35	1.84	0.32	0.09	0.08	0.97

1. Results are reported for only those aspects where significant differences were found.

2. This term was preferred to the term adjustment scores because the scores actually show the degree of mal-adjustment to various aspects.

* Critical Ratio values are given only in places where they have been found significant at the 0.05 level of confidence. This critical value of the C. R. is 1.96 (2, p. 216).

From Tables 1 and 1-A we find significant differences among the three age groups in the following areas. In other areas the values of C.R. were not found to be significant.

In the aspect of Dominance-submission 15-year olds were found to show an increased mal-adjustment compared to 14 years old. The increase was almost significant, the critical ratio being 1.95 (just short of the critical value of 1.96). This increased mal-adjustment score reveals a greater antagonism to parental restrictions and authority, in the 15-year olds. With the 16-year olds, we find this tendency to decrease as shown by the lesser average mal-adjustment score. But the fall, however, is not significant.

Coupled with this, in the aspect of dependency, we find a tendency for the average score to fall. 15-year olds show a significantly lower mal-adjustment score than 14-year olds indicating an increasing self-confidence and a decreasing sense of dependency on parents. Thus, along with increased antagonism to parents, there appears to be an increasing sense of self-reliance. 16-year olds also show a significantly lower score of mal-adjustment in this area compared to 14-year olds. But the fall from 15-year olds to 16-year olds does not appear to be significant.

Our results lead us to the following conclusions. As individuals advance in age from age 14, there tends to be an increasing sense of self-reliance and a decreasing sense of dependency on parents. This initial stage of emancipation appears to be accompanied by a wave of increased resentment to parental authority in the case of the 15-year olds.

In the aspect of Acceptance—rejection also, we find a significant rise in the mal-adjustment score in the case of 15-year olds compared to the 14-year olds, showing an increase in the problems in this area. The score tends to fall in the case of the 16-year olds. But the fall from 15-year olds to 16-year olds does not appear to be significant.

In the aspect of adjustment to the physical conditions of the home, we find a tendency for the mal-adjustment scores to fall with increasing age, showing a decreasing sense of dissatisfaction with the physical conditions of the home. The change in this aspect appears to be more steady and gradual in that neither the difference between 14-year olds and 15-year olds nor the difference between 15-year olds and 16-year olds is significant while the difference between 14-year olds and the 16-year olds is significant.

Age differences in adjustment to school or college :

The following results were found when a comparative study was made of the adjustment of the three age groups to the three aspects of the school or college.

TABLE No. 2

Showing mean mal-adjustment scores and standard deviations for the three age groups in the three aspects of school or college

Age group		Studies and related activities	Teachers	Classmates
14-year olds	Ave. ...	9.09	9.70	7.16
	S.D. ...	2.92	3.15	3.50
15-year olds	Ave. ...	8.14	10.00	6.00
	S.D. ...	3.08	3.85	4.11
16-year olds	Ave. ...	7.78	10.16	6.55
	S.D. ...	3.20	3.95	4.12

TABLE No. 2-A

Showing the critical ratios of differences among the means of the three age groups

Age groups compared	Studies and related activities	Teachers	Class mates
14 year old and 15 year old ...	0.10	0.53	1.68
14 year old and 16 year old ...	0.62	0.81	0.95
15 year old and 16 year old ...	0.76	0.26	0.87

From Tables 2 and 2-A we find that the three age groups do not differ significantly in any of the three aspects. The values of the critical ratio in Table 2-A are negligible. From this, we may conclude that as adolescents advance in age from 14 to 16, no significant change takes place in their adjustment to the three aspects of college or school.

Age and hetero-sexual adjustment:

Significant differences among the three age groups were found in some aspects of hetero-sexual adjustment.

TABLE No. 3

Showing the average mal-adjustment scores and the S.Ds. for the three age groups, in the different aspects of hetero-sexual adjustment

Age		Attitude to marriage	Attitude to discussions of sex topics	Movements with girls	Reaction in the presence of girls
14 years old	Mean	2.68	3.48	4.99	4.13
	S.D.	1.94	1.68	2.45	2.21
15 years old	Mean	2.85	3.08	4.98	4.31
	S.D.	2.06	1.89	2.30	2.11
16 years old	Mean	2.19	2.25	4.56	3.27
	S.D.	1.67	1.28	2.13	2.18

TABLE No. 3-A

Showing critical ratios of differences among the means of the three age groups

Age groups		Attitude to marriage	Attitude to discussions of sex topics	Movements with girls	Reactions in the presence of girls
14 and 15	...	0.51	1.38	0.25	0.51
14 and 16	...	1.63	5.13	1.16	2.46
15 and 16	...	2.35	3.33	1.00	3.15

From the above tables, we find that in the aspect of attitude to marriage there is a significant improvement at age 16. 16-year olds appear to show a significantly more favourable attitude compared to 15-year olds as shown by the C.R. of 2.35. This shows that 16-year olds in general, consider establishment of satisfactory marital relationship as essential to happiness, to a significantly greater extent than 15-year olds. 14 and 15-year olds tend to consider marriage as a burden and not essential to happiness, to a greater extent than 16-year olds.

In the aspect of attitude to discussion of sex information we find a tendency towards increasing tolerance for such discussions. 16-year olds show

a significantly more favourable attitude compared to 15 and 14-year olds as shown by the critical ratio values of 5.13 and 3.36. 15-year olds also show a more favourable attitude than 14-year old. But this difference does not appear to be significant.

In the aspect of movement with girls we do not find any significant age difference.

In the aspect of reaction in the presence of girls, we find a significant difference between 16-year olds and 15-year olds and also between 16-year olds and 14-year olds. In both instances, the 16-year olds appear to show a significantly lesser feeling of embarrassment and shyness in the presence of girls. Thus, in this aspect also we find evidence for improvement with age which is more significant from 15 to 16 than from 14 to 15. Thus the 'awkwardness' of the young adolescent appears to show some improvement with the 16th year.

Economic status as a factor:

Economic status and adjustment to home :

A comparison of the mal-adjustment scores of the High Income and Low Income groups in the various aspects of the home reveal significant differences in some aspects.

TABLE No. 4

Showing mean mal-adjustment scores, standard deviations and critical ratios of difference for the two income groups in the various aspects of the home

Groups		Dom-Sub.	Acc-Rej	Attitude to qualities of parents	Dependency	Siblings	Physical conditions
Low Income							
Mean	...	11.17	8.66	4.62	3.83	2.25	5.44
S.D.	...	5.58	4.32	2.68	1.47	1.92	2.12
High Income							
Mean	...	10.20	6.10	2.98	3.85	2.42	3.13
S.D.	...	5.54	3.96	2.28	1.60	2.01	2.04
C.R. between the two groups	...	0.83	2.91	1.96	0.06	0.39	5.13

From the above table we find that the high income group on the whole shows a tendency to be better adjusted to the different aspects of the home. The differences between the two groups are significant in the following areas.

Subjects from the low income group show significantly greater mal-adjustment than the subjects from the high income group in the aspect of Acceptance—rejection. This indicates that these subjects suffer from a sense of Parental-rejection, to a greater extent than the high income group.

In the same way the low income subjects show a greater mal-adjustment than the high income subjects in the aspect of ‘attitude to the personal attributes and qualities of parents’ also, as shown by the critical ratio of 1.96. The low income group appears to be much more dissatisfied with the personal attributes of their parents than the high income group.

The sharpest difference between the two groups, however, is seen in the aspect of adjustment to physical conditions as shown by the critical ratio of 5.13. The low income group, as is only natural, shows a distinctly greater dissatisfaction with the physical conditions of the home. The difference in this area is only expected because of the poorer material standards of the low income homes.

Economic status and adjustment to college or school :

A comparison of the mal-adjustment scores of the two groups to the three aspects of college and school life presented the following results:—

TABLE No. 5
Showing average mal-adjustments scores, S.Ds., and critical ratios of difference for the two income groups to three aspects of school or college

Group			Studies and related activities	Teachers	Classmates
Low Income	Mean	...	8.09	9.95	5.45
	S.D.	...	2.88	3.75	3.35
High Income	Mean	...	6.78	8.81	5.70
	S.D.	...	3.00	4.15	4.15
C.R. of differences			2.08	1.27	0.31

From the above table, we find a significant difference in favour of the high income group in the aspect of adjustment to studies and related activities as shown by the C.R. of 2.68. Boys from the low income group appear to show significantly greater mal-adjustment in this area. It is quite possible that this may be due to the comparative lack of facilities in the poorer homes. No significant difference is seen in the other two aspects, viz., adjustment to teachers and adjustment to classmates.

Educational background of the father as a factor in adjustment:

Educational background of the father as a factor in the adjustment to home :

A comparison of the two groups, sons of uneducated parents and sons of University graduates in the various aspects of the home presented the following picture:—

TABLE No. 6
Showing average mal-adjustment scores, S.D. and C.R. critical ratios of difference for the two groups in the various aspects of the home

Group	Dom-Sub.	Acc-Rej	Attitude to qualities of parents	Depen- dency	Siblings	Physical conditions
Sons of un-educated parents—						
Mean	... 12.10	7.29	3.02	4.04	2.38	4.88
S.D.	... 4.74	3.44	2.76	1.66	1.94	2.61
Sons of University graduates						
Mean	... 10.27	5.98	3.10	3.88	2.56	3.73
S.D.	... 4.64	3.84	3.60	1.63	1.88	2.16
C. R. of differences	... 2.10	1.98	0.14	0.53	0.51	2.50

From the above table, we find that there are significant differences between the two groups in the following areas. In all these areas we find sons of University graduates showing significantly better adjustment than the sons of uneducated parents.

In the aspect of “dominance-submission” we find that sons of uneducated parents show a significantly greater mal-adjustment score, implying a stronger resentment against parental authority. A similar condition is also seen in the aspect of ‘Acceptance-rejection’. In this aspect also, sons of uneducated parents show a significantly greater mal-adjustment score implying a stronger sense of parental rejection.

In the aspect of ‘adjustment to the physical conditions’ we find a significant difference in favour of the sons of University graduates. In this aspect also, sons of uneducated parents show a significantly greater mal-adjustment score indicating a greater dissatisfaction with the material conditions obtaining in their homes.

Rural-Urban variation as a factor in adjustment:

Significant rural-urban differences were found in three areas, viz., adjustment to siblings at home, adjustment to classmates at school or college, and reaction in the presence of girls in the aspect of hetero-sexual adjustment.

TABLE No. 7

Showing the average mal-adjustment score and S.D. for the two groups along with critical ratio of difference in the three areas mentioned above

Group			Adjustment to siblings	Adjustment to classmates	Reaction in the presence of girls
Rural	Mean	...	1.16	4.30	3.32
	S.D.	...	1.54	3.00	2.05
Urban	Mean	...	2.50	6.70	4.12
	S.D.	...	1.76	4.05	2.15
C.R. of differences			4.19	3.81	2.00

The only aspect of the home where there was a significant difference between the two groups was in adjustment to siblings. Here, urban subjects showed significantly greater mal-adjustment than rural subjects. In the other aspects of adjustment to the home, there was no significant difference between the two groups.

At college or school, significant difference was found only in one aspect, namely, adjustment to classmates, urban boys showing a significantly greater mal-adjustment in this area compared to rural boys.

In the aspect of hetero-sexual adjustment also we find significant difference between the two groups in only one area, viz., reaction in the presence of girls. In this aspect also we find urban boys showing greater mal-adjustment, indicating greater embarrassment, excitement and uneasiness in the presence of girls.

Attitude to religion as a factor in adjustment:

Attitude to religion and adjustment to home :

A comparative study of the two groups, the group favourable and the group unfavourable to religion, revealed following results:—

TABLE No. 8

Showing average mal-adjustment scores and S.D. of the two groups to the different aspects of the home along with critical ratio of difference

Group		Dom-Sub.	Acc-Rej.	Attitude to qualities of parents	Dependancy	Siblings	Physical conditions
Favourable to Religion—							
	Mean	...	9.53	6.05	2.84	4.14	1.60
	S.D.	...	4.38	3.36	2.68	1.69	1.38
Unfavourable to religion—							
	Mean	...	10.59	8.40	6.30	3.76	3.12
	S.D.	...	4.80	4.12	2.59	1.68	2.12
C.R.	...	...	1.12	3.16	2.86	1.21	4.22

From the above table, we find that in four of the six aspects of home, viz., Acceptance-rejection, attitude to qualities of parents, adjustment to siblings and in adjustment in physical conditions, the group unfavourable to religion shows significantly greater mal-adjustment. In the aspect of Acceptance-rejection, the group unfavourable to religion shows significantly greater mal-adjustment compared to the group favourable to religion, indicating that these subjects of the unfavourable group suffer from a stronger sense of rejection by parents. In the aspect of attitude to personal qualities of parents, subjects who are more unfavourable to religion appear to express a significantly greater dissatisfaction with the personal qualities of parents, than the subjects who are favourable to religion.

In adjustment to siblings also, we find the group unfavourable to religion showing a significantly greater mal-adjustment than the group favourable to religion.

Lastly, in adjustment to the physical conditions also the group unfavourable to religion shows a significantly greater dissatisfaction than the group favourable to religion.

Attitude to religion and adjustment to school or college :

A comparative study of the adjustment of two groups, the favourable and the unfavourable groups, to the various aspects of school or college revealed the following results:—

TABLE No. 9

Showing average mal-adjustment score and S.D. for the two groups in the three aspects of college or school along with critical ratio of differences

Group		Studies and related activities	Teachers	Classmates
Favourable to religion—				
Mean	...	6.74	8.25	5.25
S.D.	...	2.76	3.60	3.53
Unfavourable to religion—				
Mean	...	8.66	11.35	7.55
S.D.	...	2.69	3.90	4.30
C.R.	...	3.62	4.02	2.98

From the above table we find that in all the three aspects of college or school, the group unfavourable to religion shows a significantly greater mal-adjustment than the group favourable to religion.

In the aspect of studies and related activities, the unfavourable group shows a significantly greater lack of interest in their studies and tend to doubt the value of education, to a greater extent. In the aspect of adjustment to teachers, also the group unfavourable to religion shows a significantly greater mal-adjustment than the group favourable to religion. The group unfavourable to religion tends to resent the authority of teachers and doubt the sincerity of the teachers to a significantly greater extent than the group favourable to religion.

Attitude to religion and attitude to future :

A comparison of the two groups, the group favourable to religion and the group unfavourable to religion, in this area of outlook to future showed the following results:—

TABLE No. 10

Showing average mal-adjustment scores, S.D. and critical ratio of difference between the two groups in this area

		Favourable to religion	Unfavourable to religion
Mean	...	4.21	5.44
S.D.	...	2.67	2.61
C.R.	...	2.41	...

From the above table we find that there is a significant difference between the two groups, the group unfavourable to religion showing a greater mal-adjustment than the group favourable to religion. The subjects who are more unfavourable to religion appear to be worried about the future to a significantly greater extent.

Conclusion:

1. The group, comprising of age groups 14, 15 and 16, appears to be rather homogeneous. Only in a few aspects do we find significant age differences. The general tendency has been towards a decrease in the amount of mal-adjustment with increasing age, though in a few instances, we find tendencies for heightening of the problems at age 15. The significant age trends are listed below.

At Home:—In the area ‘Dominance-submission’ there appears to be an almost significant rise in the resentment to parental authority at age 15 ; but this seems to improve with the 16th year.

In the area ‘Acceptance-rejection’ we find that 15-year olds show a significant increase from the 14-year olds in their problems. But 16-year olds appear to show an improvement which again is not statistically significant.

In the area ‘Dependency’ we find a significant decrease in mal-adjustment score from 14 to 16 indicating a marked decrease in this dependency. The changes from 14 to 15 and 15 to 16 are not, however, significant.

In adjustment to physical conditions at home also, 16-year olds show a significant improvement over 14-year olds, thus showing that there is a significant improvement in this area during the two-year span.

At college:—No significant age difference is seen in adjustment to any of the three aspects of college or school life.

Hetero-sexual adjustment:—In three of the four sub-sections significant age differences are seen. These are: (i) in attitude to marriage; 16-year olds show a significantly more favourable attitude compared to 15-year olds. 15-year olds show a slight rise in the score compared to 14-year olds (not significant). The differences between 14 and 16 and 14 and 15-year olds are not significant.

(ii) Attitude to discussion of sex information—Here, 16-year olds show a significantly better adjustment than the 14 and 15-year olds. On the whole, the average mal-adjustment score show a tendency to decrease with age. But the fall from 14 to 15 is not significant.

(iii) Reaction in the presence of girls—Here also, we find a distinct improvement, in the 16-year olds who are significantly better adjusted than 14 and 15-year olds. Thus, the self-consciousness and uneasiness of the adolescent in the immediate presence of the members of the other sex seems to improve as age advances from 14 to 16.

2. Subjects from low income group appear to show significantly greater mal-adjustment than subjects from high income group in the following areas:—

(i) Adjustment to parents—in sub-sections—‘Acceptance-rejection’ and attitudes to personal attributes and qualities of parents.

(ii) Adjustment to physical conditions.

(iii) Adjustment to studies and related activities at college or school. In other cases, no significant difference was seen between the two groups.

3. Sons of uneducated parents show a significantly greater mal-adjustment than sons of University graduates in the following areas:—

(i) Adjustment to parents in sub-sections—‘Dominance-submission’ and sub-section ‘Acceptance-rejection’.

(ii) Adjustment to physical conditions.

4. Urban boys show significantly greater mal-adjustment than rural boys in the following areas:—

(i) In adjustment to siblings.

(ii) In adjustment to classmates at college or school.

(iii) In the area—Reaction in the presence of girls.

5. Religion also appears to play a significant part in the adjustment of the adolescents. Adolescents who show a more favourable attitude to religion appear to be significantly better adjusted than adolescents who are more unfavourable to religion in the following areas:—

(i) In adjustment to parents—in sub-section—‘Acceptance-rejection’ and in sub-section—‘Attitude to the personal attributes and qualities of parents.’

(ii) In adjustment to siblings.

(iii) In adjustment to physical conditions at home.

(iv) In all the three aspects of college or school.

(v) Attitude to future and future success.

In other areas this factor was not found to be very influential.

REFERENCES

- (1) FLEFGE, U. H. (1945)—*Personal Problems of Modern Adolescent* Ph.D. thesis, Catholic University, U.S.A.
- (2) GARRET, H. E. (1954)—*Statistics in Psychology and Educations*, New York, Longmans & Green.
- (3) SHANMUGHAM, T. E. (1957)—‘Covert and Overt personalities’, *J. Psychol. Res.* 1, 32-46.
- (4) SYMONDS, P. M. (1938)—*Psychology of parent child relationship*, New York, Appleton Century.
- (5) SYMONDS, P. M. (1938)—‘Psychology of parent child relationship,’ *J. Educ. Res.* 21, 321-330.
- (6) THURSTONE, L. L. and THURSTONE, T. G. (1930)—‘A Neurotic Inventory’, *J. Soc. Psychol.* 1, 1-30.

A Study of Children's Fears *

BY

RAJALAKSHMI VARMA

Problem

The objective of the investigation is to make a fact-finding survey of the various objects and situations that arouse a sense of fear in children.

Subjects

The investigation was conducted on 155 primary school children ranging in age from eight to ten, belonging to the urban areas and representing a high socio-economic level.

Methods

The tests administered are :—(i) A Questionnaire ; (ii) A Sentence Completion Test ; (iii) A Word Association Test, and (iv) A Picture Projection Test.

The Questionnaire

The Questionnaire used in the present investigation consisted of sixty-one questions referring to different fear stimuli, usually effective on children of the present age group. The items for the Questionnaire were selected by making use of the other studies conducted in the West on the present problem. The data obtained on its administration was tabulated and classified into different categories of fear situations. Their relative frequencies were then estimated. In order to enable the experimenter to compare the relative frequencies, the percentages of responses obtained out of the total possible number of fear responses were calculated for each category of fears. This was done separately for boys and girls and for each age group so as to find out the influence of the factors of age and sex on the child's fear responses.

The Sentence Completion Test

The Sentence Completion Test was administered on the same group of subjects after an interval of three months which was intended to eliminate the possible influence of the Questionnaire over the responses to the Sentence Completion Test. It consisted of fourteen incomplete sentences designed to elicit fear responses. The scoring scheme followed was the same as that followed in the Questionnaire. This test was administered to elicit the fears lurking in the deeper level of the mind which the Questionnaire is unable to tap.

The Word Association Test

This test was used only with the intention to confirm the result determined by the first two tests. Hence the data obtained were only qualitatively analysed. The stimulus word list consisted of thirty words out of which fifteen words were significant and represented fear situations whereas the other fifteen words were neutral.

The Picture Projection Test

The purpose of including this test in this battery was that it should give us an appraisal of the subjects experiencing his own fears and himself as a part of it. The materials used in this test were five pictures, each representing different fear situations. This test required the subject to make up a story around a picture visually presented to him. The aim in such a test was obviously

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to confront the subject with a variety of picture situations which would elicit from him indications as to which of these picture situations and relationships were fraught with danger, difficulty, fear and personally important implications for him.

Results

Fears at the Eight-year level :—The dominant fear of the eight-year group comprising of both boys and girls as obtained by the method of Questionnaire are fears of death, fears of the super-natural and fears of losing objects. Fears directed towards mother's safety and fear of injury to self are found to be dominant only in the boys' group, whereas the dominant fears found in the girls' group are fears directed towards school situations and fears stimulated by books and cinemas. The percentage of fear responses of girls is found to be higher than that of the boys in almost every category of fear. The only two exceptional categories are fears directed towards mother's safety and fears of natural phenomena.

The dominant fears of eight-year olds as obtained by the Sentence Completion Test are fear directed towards school situation, visual fears, fears of natural phenomena and fear of reptiles. Since the Questionnaire taps only conscious fears of the subjects, the Sentence Completion Test had to be used to elicit the fear lurking at a deeper level. The fear of the super-natural is found to be high in the boys' group only and the fear of losing objects in the girls' group alone.

Fears at the Nine-year level :—The predominant common fears at the nine-year level as obtained by the Questionnaire are found to be fear directed towards school situation, fear of the super-natural, fear of losing and fear of death. Fears directed towards mother's safety and fear of injury to self are found to be highly present in the boys but not in the girls, whereas the spatial fears are found to dominate only the girls and not the boys. Fears directed towards school situation and towards mother's safety are the only two categories in which the boys give a higher percentage of fear responses than the girls.

The dominant fears as obtained by the Sentence Completion Test for the nine-year group are fears directed towards school situation, fears of reptiles, visual fears, fear of natural phenomena and fear of losing.

Fears at the Ten-year level :—The predominant common fears of the ten-year olds, as obtained by the method of Questionnaire are fears of death, fear of the supernatural and fears directed towards mother's safety. The fears of losing and the fears directed towards school situation are found to be dominant only in the boys, whereas the spatial fears and fears of injury to self are found to be dominant only in the girls. The only exceptional category in which the boys give a slightly higher percentage of fear responses than the girls is the category of visual fears.

The dominant fears as elicited by the Sentence Completion Test from this age group are the fears directed towards school situation, fear of reptiles, visual fears, fears of natural phenomena and fear of losing.

The findings of the Word Association Test and the Picture Projection Test are found to correspond with the findings of the Questionnaire and the Sentence Completion Test to a large extent at all the three age levels.

The age trends with regard to children's fears

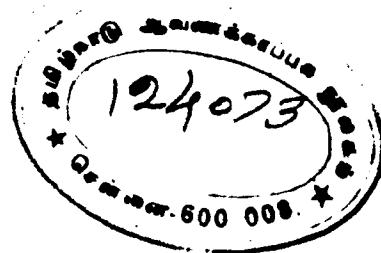
Fears that increases with age, as seen from the results of the Questionnaire :—Fear of animals, spatial fears, fears of not being liked and fear directed towards school situation are found to increase in percentage as the age increases. These fears are at the strongest at the ten-year level and weakest at the eight-year level. The fear of the supernatural is also found to increase considerably as the age increases from eight to nine ; but it is found to have shown the same percentage at the age levels of nine and ten. This increase of fear may be due to the increase of imagination and also due to the increased awareness of personal prestige and inadequacy.

*Fears that are highest at ten and lowest at nine :—*Visual fears, fears of injury to self, fears of natural phenomena and the fears directed towards mother's safety fall in this category. The sudden increase shown at the level of ten may be due to the onset of adolescence.

*Fears that are highest at nine and lowest at eight :—*The auditory fears and fears of losing can be classified under this heading. These fears are at their strongest at the nine-year level and weakest at the eight-year level.

*Fears that are highest at eight and lowest at nine :—*The fears of death and fears stimulated by books and cinema are at the highest at the eight year level. As the age increases from eight to nine, these fears decrease but are found to increase again slightly as the age increases from nine to ten.

*The sex differences with regard to children's fears :—*In almost every category of fear, the percentage of fear responses given by the girls is higher than that given by the boys. The only exceptional category is those fears directed toward mother's safety which are found to be higher in boys than in girls. However, generally speaking, girls tend to show more fear than the boys. The investigator feels that this sex difference is not due to any existent innate susceptibility to fear in the girls but due to the cultural factors.



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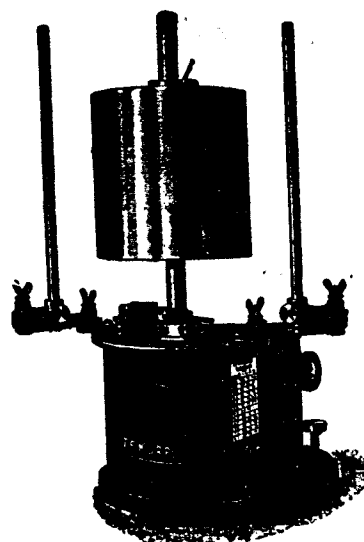
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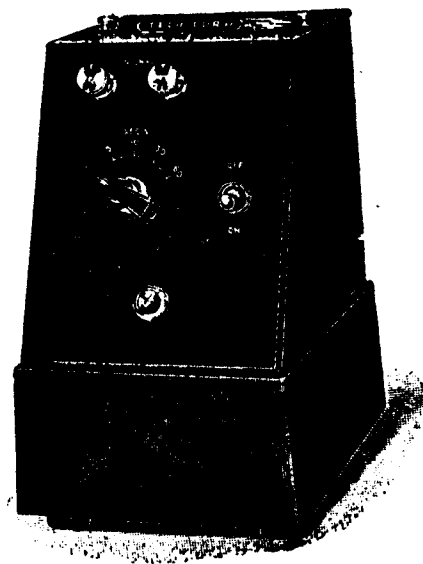
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