

# SOME PERSONALITY CHARACTERISTICS OF STUTTERERS

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## Introduction

Although the study of personality characteristics of stutterers has occupied the interest of many clinicians, since long past from now, there are comparatively few studies made in this area. As early as 1942, comparing a large group of college male stutterers with a controlled group, matched for age, intelligence and socio-economic status, Bender (1942) found that stutterers showed a greater tendency towards introversion and neuroticism, were less dominant in their interpersonal relationships, were less sociable and expressed less self-confidence. From his study Schultz (1947) came to similar conclusions, with a predominance on traits like submissiveness, inhibition, and hypersensitivity. A number of studies made in 1950's as those of Pizzat (1951), Dahlstrom and Craven (1952), Boland (1953) and Walnut (1954), all of which used M.M.P.I., showed close agreement in their findings that stutterers showed lesser adjustment than non-stutterers, although on average their scores fell within the normal range. However, Walnut's study indicated paranoid and depressive tendencies on the part of the stutterers and a tendency to react abnormally to speech and speaking situations.

Summarising the results of research studies upto 1957, by the use of projective tests, M.M.P.I., etc., Goodstein (1958) comes to the conclusion that the findings from such studies have been conflicting and do not provide any significant difference between stutterers and non-stutterers, in terms of severe maladjustment or possession of a typical personality pattern unique to stutterers.

## The Problem

The major focus of the present study was to differentiate between stutterers and non-stutterers on the two important dimensions of personality namely Neuroticism (N) and Extraversion (E). For this purpose the Eysenck Personality Inventory (E.P.I.) (Eysenck and Eysenck 1964) which measures both these dimensions with fairly high reliability (0.85) and validity indices has been used. Further, the inclusion of lie Scale (L) in the E.P.I, provided means to check the reliability of the responses. An attempt was also made to identify the differentiating characteristics between the two groups on the N-Scale.

This paper was presented at the Scientific Session of the First All India Convention of Clinical Psychologists, Bangalore, October 1969.

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## Method

The E.P.I, had been administered to a fairly large group of normals consisting of University undergraduate students and teacher trainees in the city of Mysore. The total group consisted of 1018 students, comprising 665 men and 353 women; The test was administered following the usual procedure in group settings. Instructions were read aloud to the normal groups and explanation of items were kept to a minimum. After segregating the 353 data sheets from women, a sample of 100 data sheets of 'non-stutterers' were derived from the male group by selecting every sixth among 665. This constituted the Normal group for the present study.

One hundred consecutive data sheets (E.P.I.) of male stutterers, who had registered at the All India Institute of Speech and Hearing, Mysore, either for correspondence therapy or as out-patients during the years 1968-69 served as the clinical group. The data sheets were filled by the clinical group on individual basis.

The age ranged from 15 to 39 years with the mean age of 22.20 with an S.D. of 5.75 for the normal group. In the clinical group the age ranged from 13 to 45 years with the mean age of 22.75 and a S.D. of 6.75. Both the groups consisted of males and could be considered as fairly matched on education status also.

The Lie score distributions were drawn for both the normal and clinical groups. The criterion limit of M+I SI on the lie scale for the normal group was adopted, (that is lie scores of 7, 8, and 9) in eliminating individuals showing a 'desirability response set'. The normal and clinical groups were thereafter compared on the N and E scales.

## Results and Discussion

The age distribution for the Normal and Clinical groups is provided below in Table 1. As could be seen from the table the Mean age and S.D's of the two groups are fairly comparable.

TABLE 1  
Showing the age distribution of Non-Stutterers and Stutterers

<i>Age</i>	<i>Non-Stutterers</i>	<i>Stutterers</i>
45-49	0	2
40-44	0	
	4	2
30-34	7	6
25-29	7	13
20-24	26	34
15-19	30	26
10-14	0	3
Mean=22,20		Mean = 22.75
S.D. = 5.75		S.D. = 6.75

Sorting out the 24 items, depicting neuroticism on the E.P.I., distributions were drawn for stutterers and non-stutterers. The mean value of Neuroticism for non-stutterers and stutterers were 11.05 and 13.25 with standard deviations of 4.25 and 4.60 respectively. The results are shown in Table 2, below. A tendency on the part of stutterers to obtain higher scores than normals on N-Scale can be seen.

TABLE 2  
Showing the distribution of Neuroticism among Non-Stutterers and Stutterers

Scores	N=74 Non-Stutterers		N=87 Stutterers	
	f	Percent	f	Percent
20-24	3	3.05	5	5.7
15-19	7	9.45	33	37.62
10-14	42	56.70	30	34.2
5-9	17	22.95	17	19.38
0-4	5	6.75	2	2.28
Mean=11.5; S.D.=4.25			Mean=13.25; S.D.=4.60	

It can be inferred from the table that as a group, the stutterers obtain a higher mean score than the non-stutterers. However, this mean score for the group falls within the range of the Mean+1 S.D. of the normal group. However, the difference in Mean Scores between the two groups, i.e. 2.20, in view of the standard error of the difference between the two means, i.e. 0.68, must be interpreted as significant statistically. The C.R. value comes to 3.24, which means the two groups differ with reference to neuroticism significantly, even at 0.01 level. Again the Mean N Score for Stutterers (13.25) is closer to the Mean N Score (14.41) of mixed Neurotics in Eysenck's study than to the Mean N-Score of non-stutterers, of the present study. This should be taken to mean that the group of stutterers has greater leanings towards the neurotic group than towards the normal. The following table lists the items of neuroticism taken from E.P.I. The differences in percentage for the two groups on each item has been worked out. The discriminatory power of each item has been calculated through the standard error of the percentage. Wherever the difference in percentage was more than 2.56 times the S.E. of the percentage, such items were considered to be discriminatory (Italicised items).

TABLE 3  
Showing the N-Scale items with the discriminatory items italicised

No.	Item No.	Description of item
1.	2	<i>Do you of ten need understanding friends to cheer you up?</i>
2.	4	<i>Do you find it very hard to take no for an answer?</i>
3.	7	Does your mood often go up and down?
4.	9	<i>Do you ever feel just miserable for no good reason?</i>
5.	11	<i>Do you suddenly feel shy when you want to talk to an attractive stranger?</i>
6.	14	Do you often worry about things you should not have done or said?

7.	16	<i>Are your feelings rather easily hurt?</i>
8.	19	<i>Are you sometimes bubbling over with energy and sometimes very sluggish?</i>
9.	21	<i>Do you day dream a lot?</i>
10.	23	<i>Are you often troubled about feelings of guilt?</i>
11.	26	<i>Would you call yourself ' tense or highly-strung'?</i>
12.	28	<i>After you have done something important do you often come away feeling you could have done better?</i>
13.	31	<i>Do ideas run through your head so that you cannot sleep?</i>
14.	33	<i>Do you get palpitations or thumping in your heart?</i>
15.	35	<i>Do you get attacks of shaking or trembling?</i>
16.	38	<i>Are you irritable person?</i>
17.	40	<i>Do you worry about awful things that might happen?</i>
18.	43	<i>Do you have many nightmares?</i>
19.	45	<i>Are you troubled by aches and pains?</i>
20.	47	<i>Would you call yourself a nervous person?</i>
21.	50	<i>Are you easily hurt when people find fault with you or your work?</i>
22.	52	<i>Are you troubled with feelings of inferiority?</i>
23.	55	<i>Do you worry about your health?</i>
24.	57	<i>Do you suffer from sleeplessness?</i>

Altogether there are 18 such discriminatory items. These items have a parallel with the discriminatory items from a previous study of normals and neurotics on M.M.Q. (Bharath Raj, *et al.* 1967) Some of the diagnostic items for the neurotic group found in evidence in the stutterer group were (1) considers oneself rather a nervous person, (2) often feels just miserable, (3) gets palpitations or thumping of the heart, (4) worries about health, (5) lacks self confidence, etc. The results of the present study go to confirm the findings of the previous studies quoted earlier. Also the characteristics on the N-Scale of stutters bear similarity to the Dysthemic pole of the Hysteria—Dysthemia dimension mentioned by Eysenck. (Guilford 1959). The average neuroticism score of the normal group (11.05) was found to be very near to the average neuroticism score of the total normal population (10.9.4).

On the same lines as for the neuroticism scale the 24 items of the Extraversion—Introversion scale were taken out and frequency distributions were drawn for the non-stutterers and stutters as given in Table 4.

TABLE 4

Showing distribution of Extraversion—Introversion among Non-Stutterers and Stutters

Scores	N=74 Non-stutterers		N=87 Stutters	
	f	Per cent	f	Per cent
20-24	0	0	1	1.4
15-19	18	24.30	9	10.26
10-14	42	56.70	30	34.2
5-9	13	17.55	41	46.74
0-4	1	1.35	6	6.84
Mean=12.20			Mean=9.60	
S.D.=3.40			S.D. = 4.10	

The mean values for the non-stutterers and stutterers were 12.20 and 9.60 with S.D's of 3.40 and 4.10 respectively on the E-Scale. The distribution of both the groups were found to be approximately normal, with the stutterer group showing a greater tendency to obtain low scores on the scale. This is indicative of the predominance of introversion traits among stutterers. The test of significance was applied between the two group means and C.R. was found to be 4.40, suggesting a significant difference between the two groups even at the 0.01 level.

It could also be seen from the S.D. values of the two groups, that the clinical group shows greater variability than the non-stutterer's group. The variability on the E-scale was found to be more than the variability found on the N-scale.

Table 5 shows the number of extraverted neurotics and the introverted neurotics in the two groups.

TABLE 5  
Showing percentage of Non-Stutterers and Stutterers identified to be extraverted neurotics and introverted neurotics.

	<i>Non-Stutterers (N=74)</i>	<i>Stutterers (N=87)</i>
1. Extraverted Neurotics	14	11
2. Introverte'd Neurotics	0	14.9

The Lie score distributions on the 9 items of the E.P.I, for the two groups are shown in Table 6.

TABLE 6  
Showing the distribution of Lie Score among Non-Stutterers and Stutterers

<i>Scores</i>	<i>Non-Stutterers</i>	<i>Stutterers</i>
0	0	2
1	2	4
2	2	9
3	8	21
4	14	15
5	24	20
6	24	16
7	15	6
8	9	5
9	2	2
Mean=5.45		Mean=4.31
S.D.=1.7	S.D. =	1.9

The mean values for non-stutterers and stutterers were 5.45 and 4.31 with standard deviations of 1.7 and 1.9 respectively. The non-stutterers show a slightly higher tendency for 'desirable response set' than stutterers. This could be expected from the clinical group as the patient is more likely to give an objective picture of himself in the clinical set up. However, when the significance of the difference between the two means was worked out the C.R. turned out to be 1.73, indicating no significant difference between the groups at 0.05 level.

As the criteria for identifying the neurotic and extravert-introvert would vary in the Indian context,- they were established from among the normals in the sample used. As per this criterion a person whose neuroticism score would exceed **11.05+4.25**, that is, 16 and above was identified to be a neurotic. Similarly a person whose score exceeds 12.20+3.40 that is 16 and above was taken as an extravert and one whose score would be less than 12.20+3.40 that is 8 and below was taken as an introvert. On similar lines a significant Lie Score would be 5.45 + 1.7, that is 7 and above. Using these criteria, the percentage of non-stutterers and stutterers obtaining scores beyond these limits are shown in Table 7.

The data sheets of such of the individuals who obtained a lie score of 7 and above, were eliminated from both the groups. A comparison of the data between, the stutterers and non-stutterers on the N and E scales has been attempted (as shown in previous tables) only after exclusion of individuals who obtain lie scores 7 and above.

TABLE 7  
Showing percentage of Non-Stutterers and Stutterers  
obtaining scores beyond the established criterion limits.

	N = 74 <i>Non-Stutterers</i>	N = 87 <i>Stutterers</i>
1. N-Score (16 and above)	9.4	33.3
2. E-Score (16 and above)	14.9	5.7
3. E-Score (8 and below)	1.4	36.7

### Summary and Conclusions

The present study was undertaken to differentiate between stutterers and non-stutterers on neuroticism and extraversion dimensions of personality. E.P.I, was administered to a group of 100 stutterers and a group of 100 normals, the latter being selected on a random basis from a larger reference group. After eliminating data from 13 stutterers and 26 non-stutterers from the above groups (who obtained lie scores 7 and above) their responses on the N and E scales were analysed. The study pointed out a significant difference between the two groups on the N and E scales at 0.01 level. The Mean N score of stutterers and the differentiating items between the two groups on the scale pointed out their closer affinity towards neurotics than towards normals. However, factorial studies intercorrelating the neurotic responses of stutterers would throw further light on the possibility of a syndrome of stuttering. As a group the stutterers were more inclined towards introversion and introverted neurotics were many more among them than were extraverted neurotics. The findings from this study will have strong therapeutic implications on the lines of Behaviour Therapy.

The reliability and validity of the E.P.I, has not been worked out on this population. But as it has given high indices elsewhere, it was presumed to be a satisfactory instrument for measuring Neuroticism and Extraversion. The group and

individual procedures adopted in testing normal and clinical groups might have affected the results to a small extent.

### Acknowledgment

The authors wish to acknowledge a deep sense of gratitude to Dr J. J. Dharmaraj, M.S., Director, All India Institute of Speech and Hearing, Mysore, for extending all the facilities in the conduct of the research.

The co-operation given by Sri P. D. Manohar, Miss D. Shyamala, Sri S. P. C. Pandalay, lecturers, and Sri Tiruvenkatachari, Sri R. K. Jagadeesh (Internees—M.Sc.) and Smt. Iffath Aslam, B.A., B.Ed., (Clinical Assistant), at the All India Institute of Speech and Hearing, Mysore, in the statistical treatment of the data is hereby acknowledged.

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