

PROPOSITIONAL SPEECH AND STUTTERING

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One of the attempts that were made to account for the obvious variability in stuttering shown by almost all the stutterers was to relate stuttering to communicative responsibility (Eisenson 1958; Bloodstein 1950). Accordingly, the hypothesis put forward by Eisenson (1958) considered stuttering as a 'transient disturbance in communicative, propositional language usage' (p. 244). This viewpoint holds that meaningful verbal communication or propositional speech is a significant factor that elicits stuttering. A study by Eisenson and Horowitz (1945) showed that stutterers experience more difficulty in reading a meaningful passage than when they are reading a nonsense selection. The authors concluded that 'As meanings and the responsibility for communicating meanings become prominent, stuttering increases'. In other words, a proposition, which is a 'unit of meaningful linguistic content' (Eisenson 1958, p. 238) induces stuttering and a nonsense material which is not propositional, does not do so. That is why stutterers do not have considerable difficulty in speaking to children, inferiors, intimate friends and the like.

However, an alternative hypothesis to account for the variability of stuttering is possible and is probably preferable because of its greater explanatory power. That stuttering varies depending upon the situations that a stutterer faces indicates an acquired stimulus response bond. There are stimulus situations that have acquired the property of eliciting stuttering in the life history of an individual and there are also several others that have not acquired such a property. In this sense, a simpler hypothesis based on the Pavlovian conditioning would account for the variability seen in stutterers. If this were to be true, a nonsense passage that resembles a verbal stimulus situation should elicit stuttering all the same. In view of this possibility the present investigation was undertaken.

The Problem

The problem was to study whether there existed a significant difference between the number of stuttered words while reading two passages of 150 words each, one being a meaningful passage and the other being a nonsense one. A null hypothesis that there does not exist a significant difference between the two was formed.

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The Method

A meaningful passage of 150 words on the cultivation of pepper was obtained from a Kannada magazine article. A comparable list consisting of 150 nonsense syllables in Kannada was prepared: Both the lists were handwritten on two different sheets with three paragraphs each of comparable size. The nonsense list contained 'words' of varying lengths with 2, 3, 4, and 5 syllables and thus was roughly corresponding to the variations found in the meaningful list. Unlike in English, these nonsense 'words' in Kannada could easily be pronounced and hence the only considerable difference between the two passages was the presence of meaning in the one and its absence in the other. The nonsense 'words' were organized into 'sentences' of varying lengths with all the punctuation marks. In the Eisenson-Horowitz (1945) study the nonsense selection contained meaningful words but arranged in a meaningless manner. In the present study, however, there were no meaningful words in the nonsense passage; all were nonsense syllables. This was done to remove totally the propositional value of the passage, thus increasing the strength of the variable under investigation: meaningfulness.

Ten male stutterers, with a mean age of 18.52 years were the subjects. At the time of the study, the average duration of the problem was 10.25 years. Each subject was seen individually and was asked to read the passages in his usual way. Five subjects were made to read the meaningful passage first and the nonsense passage last and the five others in the reversed order to remove the possible order effect. The number of words stuttered were noted by the experimenter.

The mean number of stuttered words and the S.D. on both the passages were calculated separately. To evaluate the significance of difference between the two means the critical ratio was calculated.

Results and Discussion

The results of the study are given in Table 1. It is evident from the table that the mean number of words stuttered on the two passages are close to each other; 29.06 on the meaningful passage and 33.09 on the nonsense passage. The S.D.'s of these two are comparable. The critical ratio calculated for the mean difference was 0.70 which was not statistically significant at any level. The observed not significant difference, however, was in favour of the meaningful passage. The subjects stuttered slightly more on the nonsense passage.

TABLE 1 showing the mean number of stuttered words on the two passages, respective SD's and the CR value.

	<i>Mean</i>	<i>SD</i>	<i>CR</i>
Meaningful	29.06	5.45	
Nonsense	33.09	4.56	0.70 (NS)

The result of the present study does not support the hypothesis that stuttering increases as the meaningfulness of a verbal task is increased. If the hypothesis

were to be valid, the subjects should have stuttered significantly less on the nonsense passage. All subjects recognized the fact that the passage was not meaningful and were convinced that they were not communicating anything with the experimenter. It should be added, however, that one of the subjects felt that the language of the nonsense passage could have been Malayalam and another felt that it could have been Telugu (both knew only Kannada and to some extent English). Even these two subjects, any way, were convinced that 'they' were not communicating anything with the experimenter; because as far as they were concerned, the passage did not mean anything to them. Others had no difficulty in recognizing the passage to be completely devoid of meaning.

This finding indicates that meaningful communication *per se* is not a significant factor in stuttering. It is probable that the subjects had the same amount of difficulty on the nonsense passage also, because, although devoid of meaning, it was still a conditioned stimulus pattern that was associated with stuttering. The passage provided a set of cues that would automatically elicit stuttering behaviour irrespective of other characteristics including meaning. It seems the presence of a certain familiar pattern of stimuli is sufficient to trigger the stuttering response. The nonsense passage was organized in such a way as to look like a usual, familiar, passage. This served as the conditioned stimulus situation and elicited stuttering all the same.

It is thus evident that stuttering is bound to certain cues and does not necessarily depend upon the linguistic content. Hence the interpretation that adult stutterers have less difficulty while speaking to children, pets, inferiors, and close friends because there the propositional value is reduced, is of doubtful validity. It is likely that stutterers do not have difficulty in these situations because they are far-removed from the original traumatic situation(s) that elicited stuttering. It is very unlikely that a close friend, a pet animal, or a small child would create a stressful situation for an adult that would result in a sympathetic arousal with concomitant behavioural symptoms including stuttering. And hence these stimulus situations do not generally acquire the property of eliciting stuttering response.

The hypothesis concerning the propositional value runs into another difficulty. If it is accepted that stuttering is related to meaningfulness of communication and also that stutterers have more difficulty while speaking to authority figures and less while speaking to the intimate friends, we cannot escape from making the inevitable and yet incongruous conclusion that stutterers talk nonsense to their friends! Stutterers would perhaps protest by saying that they are capable of more meaningful communication with their intimate ones.

Summary and Conclusions

The null hypothesis that a passage consisting of nonsense syllables would not elicit significantly less stuttering than an otherwise comparable meaningful

passage was investigated. Ten male stutterers read two passages in Kannada of 150 words each, one meaningful and the other devoid of meaning. The subjects' mean number of stuttered words were 29.06 on the meaningful and 33.09 on the nonsense passage. The CR for the mean difference was not significant and hence the null hypothesis was retained. The results did not confirm the proposition that the meaningfulness *per se* is a significant factor in stuttering. It is concluded that stuttering probably is largely elicited by a conditioned stimulus pattern.

REFERENCES

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