The Effects of Continuous Contingent, Random Contingent and Random Negative Stimulation on Selected Responses in a Moment of Stuttering*

DATTATREYA, T.

The punishment data related to stuttering is controversial. The earlier studies (Van Riper, 1937b ; Frick, 1951) indicated that pinishment increases stuttering. On the other hand recent studies (Goldiamond, 1963, 1965 ; Martin and Siegel, 196 ; N. S. Viswanath, 1972) show that stuttering responses decrease.

Siegel (1970) has pointed out that one of the reasons for the discrepancy is that the earlier studies did not employ contingent negative stimulation. In general, the studies employing contingent negative stimulation indicate that stuttering decreases.

The different types of schedules produce different types of performances (Ferstor and Skinner, 1951). It has been found that the variable ratio schedule is more effective in altering the behaviour than any other schedule.

The present study attempted to investigate the effects of three schedules of negative stimulation on 8 stutterers. The three schedules were Continuous contingent, Random contingent and Random negative stimulation. The random schedules were predetermined. The responses stimulated were repetitions in seven subjects and hesitation in one subject. Balanced Latin Square Design was used to cancel out the order effects and to help in the calculation of residual effects of the three schedules on each other. Six subjects were used in the Balanced Latin Square Design. Residual effects were obtained by the analysis of variance for the group.

Non-parametric statistics were used to find out the direct effects and to compare them. Wilcoxon matched pair signed rank test and Mcllamar test for the significance of changes were used to analyse the data.

The results of the study were :

(1) There was no significant residual effect.

(2) Both the continuous contingent and random contingent negative stimulation decreased stuttering.

(3) Random negative stimulation did not alter the stuttering responses significantly.

(4) There were no significant differences between the effects of continuous contingent and random contingent negative stimulation.

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Conclusions

The following conclusions were drawn :

(1) Contingent negative stimulation—Continuous contingent and random contingent—of the selected responses in a moment of stuttering decreases the responses significantly.

(2) Random negative stimulation will not alter the frequency of occurrence of the responses significantly.

(3) The continuous contingent and random contingent negative stimulation will not exert any significant differential effect on the frequency of occurrence of the selected responses.

Limitations

The following limitation was recognized after the study, in addition to those mentioned in the introduction.

Some of the subjects had been under other therapies before the experiment and hence that might have affected the test results.

Recommendations for Further Research

(1) The effects of different levels of shook contingent upon stuttering responses may help to test the "highlighting".

(2) Bilingualism and stuttering.

(3) Discriminative stimulus control of stuttering behaviour.