AN EXPERIMENTAL STUDY OF SOME OF THE FACTORS THAT COUNTERACT
THE EFFECT OF RETROACTIVE INHIBITION IN RELATION
TO NON-SENSE SYLLABLES AND CONFIGURATIONS

ABSTRACT

The present study attempts to discover the factors which
enhance retention under interfering conditions. Assuming the existence
of the phenomenon of retroactive inhibition, the investigation under
consideration raises the question as to the possible relationship
between inhibition and set or/motivation, on the one hand, and
between inhibition and perceptual organization, on the other. Thus the
present study is mainly concerned with determining the extent to which
set, motivation and perceptual organization influence the susceptibility
of learned materials to retroactive inhibition (Chapter I).

Numerous studies of retroactive inhibition have demonstrated
the detrimental effect of interpolated activity but there are very few
studies dealing with the factors which minimize the inhibitory or
detrimental effect of interpolated activity.

The present investigation marks an improvement over previous
researches in some important respects. By inducing set in the subject at the time of original learning and by introducing interpolated activity immediately after original learning, a part of the present research attempts to clarify the uncertainty and to fill up the gap left by O.P. Lester. The present study is the first of its kind in which motivation, defined in terms of positive ego-involvement, has been used together with set to counteract the inhibitory effect of interpolated activity. An important aspect of the present research concerns the manner in which perceptual organisation of the learning material can resist assimilation and interference and thus enhance retention. Previous studies dealing with this factor could not permit sufficient control over the factor of similarity. By introducing the factor of perceptual organisation in the learning material and without simultaneously varying the similarity between original and interpolated learning, the present research marks an improvement over previous studies both in terms of the method and design used (Chapter II).

The present study consists of two experiments. One of them was designed to study the extent to which set or/and motivation can minimize the inhibitory effect of interpolated activity. The purpose of the second experiment was to study the effect of perceptual organisation on the susceptibility of learned material to retroactive inhibition. The material employed in Experiment I were non-sense syllables chosen from Glaze's classification according to association value. Subjects of this experiment were 60 German students of degree classes. They were
randomly assigned to five groups according to the specific conditions of the experiment. Thus there were 16 students in each group. Five conditions were used. The experimental conditions consist in different instructions given to the subject at the time of original learning. Thus set was induced by means of directions urging the subject to resist the inhibitory effect of interpolated activity. Motivation, defined in terms of positive ego-involvement, was aroused by praise and competition. The material employed in the second experiment were vague drawings representing various classes of objects. These visual forms could be made highly similar in form but different in meaning. Subjects of this experiment were 56 German students of degree classes. They were randomly assigned to four groups according to the specific conditions of the experiment. Thus there were 14 subjects in each condition. The experimental conditions consist only in different arrangement of the stimulus items. The detailed design and method of the two experiments are presented in Chapter III under Section I and II respectively.

The data obtained in the two experiments were tabulated separately and statistically analysed to yield necessary inferences. The Median Test was used to test the significance of difference between any two comparison groups. The results of the first experiment reveal:

a) that knowledge or 'preparedness' to recall does not bring about any marked facilitative effect upon the retention of the material learned.

b) that directions, urging the subjects to resist inhibitory effect of interpolated activity result in a significantly greater recall, and
c) that additional motivation brings about facilitative effect on the recall of the material learned.

The main finding of the second experiment is that the perceptually organised material are less susceptible to retroactive inhibition than unorganised material. Interpretation and discussion of the results obtained for the two experiments are presented in Chapter IV.