ABSTRACT

Present investigation was intended to determine the effect of phonemic and semantic similarity of the task and prolonged deprivation on implicit and explicit memory. The main objectives of the study were: (a) To explore the differential effect of phonemic and semantic similarity of the task on implicit and explicit memory (b) To explore the differential effect of prolonged deprivation on implicit and explicit memory (c) To resolve the long standing controversy whether the same or different processes underlie implicit and explicit memory.

A 2x2 factorial design, in which one personality variable (i.e. prolonged deprivation) and one task variable (i.e. similarity) each varying in two ways, was used in the present experiment. Prolonged deprivation variable was varied by selecting (a) deprived and (b) non-deprived subjects. The two values of task variable were: (a) Phonemic similarity and (b) Semantic similarity. Thus each of the groups of subjects namely deprived and non-deprived was presented a list of paired associates, half of which consisted of phonemically similar stimulus members, and other half consisted of semantically similar stimulus members paired with unrelated meaningful common words. Thus it yielded four observations.
on two groups of subjects for each of the two measures of the dependent variable. The two measures of the dependent variable (i.e. retention) employed in the present experiment were implicit and explicit memory.

In all 80 male subjects participated in the experiment. Out of them 40 subjects were deprived subjects and remaining 40 were non-deprived. They were selected from a large sample of 300 graduate and post graduate students of Aligarh Muslim University, on the basis of their scores on Misra and Tripathi (1977) prolonged deprivation scale.

Results of the study clearly revealed a differential effect of both independent variables viz. task similarity and prolonged deprivation on implicit and explicit memory. Phonemic similarity of the task as compared to semantic similarity had more pronounced detrimental effect on implicit memory whereas semantic similarity as compared to phonemic similarity of the task had greater detrimental effect on explicit memory. Deprived subjects showed significantly poorer explicit memory performance whereas the difference in implicit memory performance of these two groups of subjects was found insignificant. The interactional effect of prolonged deprivation and task similarity was found significant on both implicit and explicit memory performance as well as on the difference of implicit and explicit memory performance. The findings of the present research were discussed in the light of activation and multiple memory system theories of implicit memory.