Summary

Anxiety reducing drugs are quite frequently used in the treatment of mental disorders. However their effects are not confined only to physiological changes but they also have a varied influence on behaviour. Chlorpromazine (CPZ) an anti-anxiety drug, which is frequently used on psychiatric patients has also been found to effect locomotor, exploratory and escape behaviour. This drug also affects acquisition and retention of a wide variety of tasks; the effect being dose dependent. The present investigation was conducted to study the effect of CPZ, on retention of pipe-walking task. It was hypothesised that:

i) Since low doses of chlorpromazine facilitate memory consolidation, acquisition of a pipe walking task would be faster in the CPZ injected group.

ii) Since high doses of chlorpromazine inhibit memory consolidation, this facilitating effect would be limited only to the initial few trials.

A multigroup design with four groups was employed to test these hypotheses. A sample
of 46 animals, approximately 90 days old and weighing around 130±5 was randomly selected and assigned to 4 groups. The body weight of these animals was reduced to 80% of their average body weight by using a partial food deprivation schedule.

The animals were injected with CPZ (.65, .95 and 1.25 mg/kg) or saline (.25 ml) 45 minutes prior to the daily draining trials.

Training continued until the animals reached an asymptotic level of performance.

The mean time taken by the animals was calculated.

In order to determine whether the groups differed significantly Dunnaan's range test was applied.

Results supported both these hypotheses. It appears that CPZ does influence specific information processing mechanism, the effect being dose dependent. Also reduction of fear during the acquisition of a fear reducing task has a beneficial effect on learning.