

*LETTER TO THE EDITOR*

## THE MEASURE FOR MOTIVATIONAL DRIVE OF THE FEMALE RATS TO APPROACH THE PUPS - PRELIMINARY REPORT

Sir,

( Received on March 15, 1986 )

Drive to rear the young pups is commonly observed in the females during the post gestational period. This drive is expected to be stronger in the beginning but becomes weaker as the pups grow.

The present work is an attempt to measure the strength and duration of this drive in the female rats from the 10th day after delivery. The measure is recorded upto 43 days during the postgestational period.

The desire to be amongst the young pups for purpose of feeding and protecting them in their early age was measured in terms of frequency with which the females crossed the electrified grid to reach the pups during 10 minutes. The mother was placed in the chamber having dimensions 25 cms  $\times$  27cms  $\times$  30 cms separated by electrifiable grid measuring 30 cms  $\times$  10 cms fixed between this and the second chamber having same dimensions as the first chamber in which about 4 pups were placed. As soon as the mother crossed the grid to approach the pups she was placed in the previous chamber. The number of times the mother rat approached the pups by crossing the grid without the current being passed in it was first determined. The procedure then was repeated in the same setting when the mother rat had to cross the electrified grid through which current with maximum tolerable strength (25-30 micro amp. approximately) was passed. This strength of the current was kept constant throughout the experimental period for a given animal.

The number of approaches made by the rats towards the pups served as a measure of the strength of the drive. Fig. 1 depicts the number of approaches during the experimental period. It is observed from this figure that the drive was stronger in the early post-gestational period and becomes weaker as the age of the pups advanced. The motivational drive was slightly reduced when grid was electrified. This was not statistically significant.

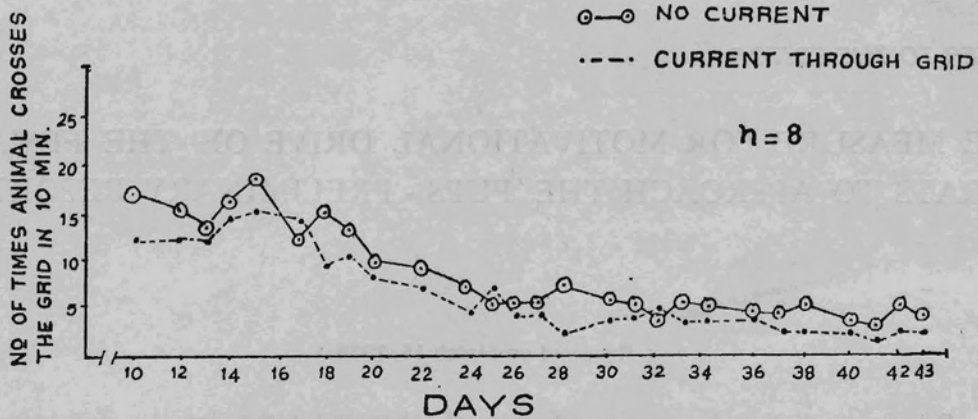


Fig. 1 : The motivational drive of the mother rat to approach the young ones through the electrified grid. The maximum tolerated current passing through the grid (approximately 25 to 30 micro amp) was determined and kept constant for all days of observation. The drive was computed by determining the number of times the mother crosses the electric grid in 10 minutes (. - - .). This was compared with the number of times the pups were approached without passing the current (○—○). Mean readings of eight females.

This is a preliminary report on measure of motivational drive in the female rats in post-gestational period and the study of neurophysiology mechanism is in progress.

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