Table 1.
Results of Experiment

Measure	Group V	Group O	Group M	Group H	F	p
Mean No. Horizontal Preference Periods Per <u>S</u> .	14.75	14.25	12.00	7.88	5.69	< .01
Mean Total Time In Horizontal Side (Sec. Per Trial).	660.7	595.6	622.7	524.6	2.88	> .05
Mean Number of Horizontal First Choices (Per <u>S</u>).	2.88	2.38	2.88	2.25	< 1	-

position of stimuli in the choice chamber, and running order were counterbalanced with exposure box (not pattern) and running order completely confounded.

For convenience all dependent variables were defined in terms of the horizontal side. A horizontal preference period was defined as any of the 25 possible periods per S during which a rat spent anything more than 120 sec. of the 240 sec. in the horizontal side. First choices were defined as the first box which a rat entered with four paws on a given trial. Scores for the vertical measures can be found by subtracting horizontal scores from the total possible.

Results and Discussion

The results of this study are presented in Table 1. It can be seen in the table that the two experimental groups were extreme on all measures and that Group V was highest and Group H lowest when measures are taken with regard to the horizontal compartment. Analysis of variance (Winer, 1962) on the preference period data showed a significant effect of group or exposure stimulus beyond the .01 level ($F_{.99,3,24}=4.72$). Analysis of variance on the data with respect to total time spent in the horizontal chamber was just short of the .05 level of significance ($F_{.95,3,24}=3.01$). Data with respect to the first choices of the rats were similarly ordered but the differences did not approach statistical significance.

In general it would appear that under the present conditions, stimulus preference in a choice situation can be considerably altered as a result of exposure to

stimulus patterns in a location external to the test situation. Thus, rats that were exposed to horizontal stripes showed a considerably lower tendency to stay in a box containing horizontal stripes than did rats that had been exposed to vertical stripes and vice versa. The two control groups were intermediate.

These results would appear to be consistent with the stimulus satiation hypothesis, and more precisely, with the notion that the effects of stimulus satiation should be generalizable among similar stimulus patterns (Glanzer, 1953, Postulate iii). It is hoped that this technique might be further employed in tracing the time course of the development and dissipation of this effect.

References

- DEMBER, W. N., EARL, R. W., & PARADISE, N. Response by rats to differential stimulus complexity. *J. comp. physiol. Psychol.*, 1957, 50, 514-518.
- GLANZER, M. Stimulus satiation: an explanation of spontaneous alternation and related phenomena. *Psychol. Rev.*, 1953, 60, 257-268.
- KIVY, P. N., EARL, R. W., & WALKER, E. L. Stimulus context and satiation. *J. comp. physiol. Psychol.*, 1956, 49, 90-92.
- WALKER, E. L., DEMBER, W. N., EARL, R. W., FLIEGE, S. E., & KAROLY, A. J. Choice alternation: II. Exposure to stimulus or stimulus and place without choice. *J. comp. physiol. Psychol.*, 1955, 48, 24-28.
- WINER, B. J. *Statistical principles in experimental design*. New York: McGraw-Hill, 1962.

Note

1. The present study was carried out in part while the author was a pre-doctoral fellow of the National Science Foundation and was facilitated by USPHS Grant MH 04239-HD00904 to E. L. Walker.

Erratum

GERBRANDT, L. K. The effects of anteromedial and dorsomedial thalamic lesions on passive avoidance activity. *Psychon. Sci.*, 1965, 2, 39-40—The reference

to Kimble should have read: KIMBLE, D. P., KIRKBY, R. J., & STEIN, D. C. A response perseveration interpretation of passive avoidance deficits in hippocampectomized rats. Unpublished, 1965.