Table 1
Mean Change in Auditory Threshold and in Spontaneous GSR Activity

Groups	Mean threshold change, db's	Mean change in spontaneous GSR deflections
Avoidance	-1.09	-0.05
Instrumental no-avoidance	+1.16	-1.36
Classical no-avoidance	+1.13	-1.82
Tone alone control	+0.05	-1.03
Tone shock control	-0.22	-1.65

$p < .05$). The most pertinent comparison for the theory is between avoidance and no-avoidance conditions. While the mean difference between these two groups is only about 2.25 db, Ss were highly consistent in the direction of the changes ($t = 3.31$; $p < .005$, one-tail test). Thus, a sensitization effect appears to have occurred as a result of the avoidance treatment, while some form of perceptual de-emphasis or de-sensitization seems to have resulted from the no-avoidance treatment. These results for avoidance and no-avoidance conditions have since been replicated in our laboratory by another experimenter, with minor variations in the procedures.

Spontaneous GSR measurements were obtained by counting the number of non-threshold related deflections in 75 sec. time blocks during threshold determinations. The number of deflections in the avoidance group showed little change from pre- to post-treatment threshold determination (Table 1). All other groups showed some habituation of GSR activity. The analysis of variance for the avoidance group, combined no-avoidance groups, and combined controls were significant ($F(2/27) = 3.55$, $p < .05$). Evidently autonomic activity remains high when S attempts to avoid punishment and his attempts seem to be at least partially successful. For no-avoidance groups, the reduction in autonomic activity may be an autonomic correlate of repression attempts at the psychological level. This is speculative, of course, since the controls also show considerable reduction in autonomic activity. However, the groups which show the greatest reduction are those which ostensibly had uncontrollable shock: the no-avoidance groups and the tone-shock control. The lesser re-

duction which occurred for the tone-alone group might reflect fatigue or tension reduction as Ss habituated to the experimental situation. Other experiments are in progress which may lead to more definitive interpretations.

References

- DULANY, D. E. Avoidance learning of perceptual defense and vigilance. *J. abnorm. soc. Psychol.*, 1957, 55, 333-338.
McNAMARA, H. J., SOLLEY, C. M., & LONG, J. Effects of punishment (electric shock) upon perceptual learning. *J. abnorm. soc. Psychol.*, 1958, 57, 91-98.
SOLLEY, C. M., & MURPHY, G. Development of the perceptual world. New York: Basic Books, 1960.

Note

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Errata

TRAPOLD, M. A., CARLSON, J. G., & MYERS, W. A. The effect of noncontingent fixed- and variable-interval reinforcement upon subsequent acquisition of the fixed-interval scallop. *Psychon. Sci.*, 1965, 2, 261-262—The fourth and fifth sentences, beginning with line 10, under Results and Discussion should read as follows: "Using an error estimate based upon all of the data in this overall analysis (Lindquist, 1954, p. 272), the following pattern of .05-level significant differences emerged for each of the three possible pairwise comparisons among the three groups on each of the 15 days of testing: Group FI had significantly larger scallops indices than Group N on days 2 through 5 and than Group VI on days 3 through 6 and day 10. Group VI had significantly smaller scallop indices than Group N on days 4, 6, and 8 through 10."

BROWN, S. C., & BROWN, PENNY. Comparison of successive and simultaneous methods of pair presentation in paired-associate learning. *Psychon. Sci.*, 1965, 2, 309-310—In the first sentence under Method, the number of Ss should be 16, not 24.