

CUE UTILIZATION AS A FUNCTION OF DRIVE:
AN EXPERIMENTAL STUDY

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On the basis of a review of a large number of empirical studies, Easterbrook has proposed a general law according to which "the number of cues utilized in any situation tends to become smaller with increase in emotion" (1959, p. 197). The present study makes possible an experimental test of the law by having a high-drive and a low-drive group perform a task the execution of which depends very much on cue utilization; the prediction from Easterbrook's principle would be that the high-drive group would perform worse than the low-drive group.

Subjects.—As in previous studies concerned with the effects of drive on performance and reminiscence (Eysenck & Maxwell, 1961; Eysenck & Willett, 1961; Willett & Eysenck, 1962a,b; Eysenck, Willett, & Slater, 1962), we used an apprenticeship selection scheme under which one of the largest British motor car firms allowed us to incorporate our experimental tests in the selection test battery which was given to large numbers of applicants for their apprentice training scheme. The boys are highly motivated to do well on these tests and are not aware that the experimental tests are not taken into account in the selection process. In the low-drive group are apprentices already on the staff of the firm, acquainted with the experimental nature of the tests and minimally motivated to do well on them. Both groups are similar in age, intelligence, and social class.

Test.—In the Tsai-Partington Numbers Test (Ammons, 1955) on each of a number of different pages, a series of numbers is located at random over the entire sheet. Instructions are to trace a line from 1 to 2 and so on through consecutive numbers; the quick visual location of these numbers constitutes the essential element of the task. We followed Ammons' method, using massed practice, i.e., no rest pauses between trials, and replacing each sheet with a new one every 30 sec. To study reminiscence a 5-min. rest pause came after either a 3-min. or an 8-min. practice which was followed by 5 min. of practice. We had four groups in all, made up of the combinations of high and low drive, and of short and long pre-rest practice. The score was the last number correctly reached during 30-sec. trials summed over 3-, 8-, or 5-min. periods.

Results.—Analyses of variance were carried out for both the short and long pre-rest practice groups' performance separately before and after rest. In the former groups, the low-drive Ss were superior in both conditions $P < .05$ and $.01$, respectively ($N = 94$ for combined drive groups). For the long pre-rest group, the performance of the low-drive group was also superior ($P = .05$ for post-rest scores, $N = 102$ for combined drive groups). The results support the original hypothesis.

Reminiscence scores were obtained by subtracting the score on the last pre-rest trial from that on the first post-rest trial. An analysis of variance failed to show evidence of significance either for the drive or for the length of pre-rest variable, although the work of Kimble (1950), Wassermann (1951), and Willett and Eysenck (1962b) would have led one to predict higher reminiscence for the high-drive and the long pre-rest practice conditions. However, these studies used other tasks, and in our experience both performance and reminiscence are

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very much determined by the nature of the task, in ways that are not well understood.

For pursuit rotor work, Willett and Eysenck (1962b) have found that oscillation is less pronounced in high-drive Ss, as shown by correlating successive 10-sec. trials. In the present experiment we correlated the last two pre-rest scores with each other, and also the two first post-rest scores (Table 1). Although we are dealing with 30-sec. trials, correlations are uniformly lower than those found for pursuit-rotor work using 10-sec. trials; this lack of reliability may account for the failure of our reminiscence scores to be significant. On the whole the correlations give little support to the hypothesis of greater reliability in high-drive Ss.

TABLE 1
PRODUCT-MOMENT CORRELATIONS FOR EACH GROUP

	Pre-rest scores:	Post-rest scores:
Short pre-rest; low drive	.45**	.39**
Short pre-rest; high drive	.41**	.31*
Long pre-rest; low drive	.06 N.S.	.01 N.S.
Long pre-rest; high drive	.60**	.10 N.S.

Summary.—High-drive and low-drive Ss were given a perceptual-motor task which made demands on their ability to utilize cues. The results bore out Easterbrook's rule according to which higher drive makes cue utilization less efficient. No differences in reminiscence were observed between high-drive and low-drive groups, a finding opposed to theoretical deduction and previous empirical findings with other tasks.

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