tion as on Problem 2. That is, mean errors (Table 1) tend to increase with increasing D, but decrease with increasing K. As a further check for D and K effects, the mean intra-session latencies were analyzed by Kruskal-Wallis test. Differences in latency were clearly significant ($p < .05$) for both problems. Mean latency (Table 1) decreases with increase in both K and D.

The inverse relation between error and latency measures is of interest in light of the controversy (Eysenck, 1957) concerning the effect of D upon choice measures. According to Eysenck's view the elevated errors would indicate that D for the 30% group was excessive, e.g., beyond some optimal value. In Spence's view the effect of increased D would presumably serve to increase the occurrence of irrelevant or competing responses that interfere with correct responding. While the present data provide no direct confirmation for either view, it is of interest to note that there is little change in the relative difference in error scores between the two D groups across Problems 1 and 2. The effect of varying D is roughly constant across both problems, despite the large negative transfer, e.g., competing response from Problem 1, shown on Problem 2.

One major requirement of any behavior measure to be employed in the calibration of inter-species differences is that it not reflect variation in task or procedural variables inherent in the measurement

operation itself. Rajalakshmi and Jeeves in their review of previous work argue that the RI is independent of task difficulty, but further direct experimental confirmation would appear to be required. However, the failure of either D or K to significantly control RI, though exerting a strong influence upon the absolute error scores upon which the RI is based, lends new support to the value of RI for cross-species comparisons.

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Notes

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Reply to Evans by Leslie Solyom

The primary result reported by Solyom, Beaulieu, and Enesco was that RNA injected animals bar pressed at a significantly higher rate than control animals during VI training and extinction, but not during CRF training. Lack of clarity in our paper seems responsible for Evans' question as to whether RNA treated rats acquire a bar pressing response more rapidly than control animals, and whether they show a subsequent resistance to extinction. The bar pressing response was acquired to criterion during master training, but these data were not included in our paper. On receiving Evans' letter, we analyzed this data and found that the whole RNA group showed a faster acquisition of the bar pressing response than did the saline group. The proportion of whole RNA animals who reached criterion on the first day of master training was greater than the proportion of saline animals who did so ($X^2 = 4.7$, $df = 1$, $p < 0.05$).

In interpreting the results of extinction, we failed to make explicit that while the whole RNA group bar pressed significantly more during the five day extinction period, they also exhibited a more rapid decline of response rate (see extinction curve for last three days).

Without doubt, stimulant drugs enhance the tendency

to respond, but we would like to point out that these drugs also enhance activity, an effect which has not been found with RNA (Corson & Enesco, 1966; Wagner et al, 1966).

Like Evans, we also feel that the interpretation of our results is far from being unequivocal. The hydrolyzed RNA group, for instance, was significantly better than the saline group during CRF training but in no other phase of the experiment. Since we had found a significantly higher bar pressing in the whole RNA group during VI training, then by exclusion of such factors as greater motivation (increased thirst, Corson & Enesco, 1966) and greater activity, we interpreted this result as suggestive evidence of an RNA effect on learning.

If RNA affects only performance, then the rate of an already learned response should be increased by RNA administration, and not by saline. In a recently completed study, where this proposition was subjected to investigation (unpublished data), we failed to find an increase in rate of bar pressing for either group.

In the light of presently available evidence, however, it indeed may be difficult to state whether RNA affects learning or performance. The experiment which Evans suggests would be of great interest in clarifying this point.