SUPERSTITIOUS ESCAPE BEHAVIOR DURING SIDMAN AVOIDANCE TRAINING

J. D. KEEHN AND SAEED CHAUDREY

AMERICAN UNIVERSITY OF BEIRUT

An early statement about Sidman's avoidance procedure was that it did not normally involve escape behavior (Sidman, 1953). But this may be untrue. Although shocks terminate independently of a subject's behavior, many bar presses, at first, quickly follow upon shocks (*cf.* Sidman, 1958), and these responses could involve escape elements (*cf.* Boren, 1961).

Using Grason-Stadler apparatus we have observed that several subjects frequently responded before shock offset. For example, one subject in its fourth 3-hr session of training with R - S and S - S equal to 10 sec, after an initial shaping session with S - S 2 sec, and R - S 17 sec, responded before shock offset (shock duration .3 sec) after 187 of the 260 shocks it received in the first hour.

These data suggest the development of superstitious escape behavior, either bar releasing or pressing (*cf.* Migler, 1963), and are supported by the data in Fig. 1 and 2. The experimental chamber contained two levers; Bar 1 functioned on R - S 10 sec, Bar 2 non-

functional. Figure 1 is typical and shows Bar 1 responses cumulatively and Bar 2 responses on the bottom line. Two hours when the subject responded almost entirely to Bar 2 are omitted from the record. To see if Bar 2 responses could be superstitious escape behavior, shock durations were varied, and cumulative records of Bar 2 responses under the designated shock durations are shown in Fig. 2. On the 20th session, with shock duration .05 sec throughout, the subject failed to respond to either bar.

Fig. 2. Cumulative record of the same subject's behavior on the non-functional bar during its 19th session. Arrows indicate changes in shock durations which were normally .3 sec. The response rate of about 13 rpm with .3 sec shock duration is typical. On the previous session with shock duration .075 sec throughout, overall response rate was 7.8 rpm.

Fig. 1. Record of a subject's behavior on a functional (cumulative) and non-functional (bottom record) bar during its third 3-hr session on S - S = R - S = 10 sec, after 1 session on S - S 2 sec, R - S 17 sec. The middle 2 hr during which the subject responded almost exclusively to the non-functional bar are omitted.

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