Reply to Dr. Lester

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Lester's interesting reply (1968) to the criticisms I offered (Sheldon, 1968) of his report (Lester, 1967) on differences in the behavior of rats in an elevated and an enclosed maze seems to me to leave some points unanswered.

(1) It now appears (Lester, 1968) that arm entry scores (lower in the elevated than in the enclosed maze) were taken not as a measure of exploration, but as support for the "assumption that elevated mazes increase the fear level of rats compared to enclosed mazes." But my criticism of the appropriateness of any comparison based on these scores holds. The difficulty is that elevated and enclosed mazes differ in more than their presumed capacity to arouse fear. Because they confront the animal with different sets of stimuli (and that is all I meant by "different sensory environments") they may give rise to different forms of exploratory behavior. It is possible, then, that activity in an elevated maze is lower not because rats are more frightened but because they are engaged in a form of exploration that reduces the number of sections

entered. I thought that I had presented some evidence for this explanation, and incidentally acquitted myself on any charge of anthropomorphism, by showing (Sheldon, 1968) that rats in an elevated maze spent one-third of their time in an activity that is impossible in an enclosed maze and has every appearance of being exploratory.

(2) Lester argues that it was the differences in initial alternation scores that were the critical evidence for his theory, and that as far as his predictions about alternation are concerned it does not matter whether the animal is attending to intramaze or extramaze cues. But if animals in an elevated maze are responding to extramaze cues, an alternation measure derived from arm entries is no longer appropriate. A rat could alternate with respect to extramaze cues without alternating between maze arms.

REFERENCES

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