

SRS Abstract

Two-Choice Landmark Discrimination in Rats

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Rats use many cues when navigating to food, shelter, or a mate. The use of visual cues (e.g., landmarks) has been reported in many species. In rats, these cues include those around their start position, the experimenter, as well as landmarks located in (intramaze) or around (extramaze) the search space. In the current experiment, rats were placed into a start box with a transparent door and released onto an open field. We examined whether rats were able to discriminate between two different intramaze landmarks (wooden figurines; A and B) from the start box. Landmark A trials were reinforced with a Froot Loop[®] hidden in a cup behind the landmark (A+), but no Froot Loop was present on Landmark B (B-) trials or on C- trials with no landmark. Latency to the goal cup was measured and revealed no differences between the three trial types. The procedure was modified to include two response locations (to the left and right of the landmark). A+ and B+ trial types were reinforced at different cups. There was no difference in accuracy for searching the correct cup first. The use of non-visual cues, the discriminability of the landmarks, and the response cost of search will be discussed.