MAZE-BRIGHT AND MAZE-DULL RATS

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Maze-Bright and Maze-Dull Rats: A Review of a Longitudinal Study

Abstract

This article provides a review of the longitudinal study conducted by Johnson and Smith (1985) on maze-bright and maze-dull rats. This study examined the effects of early classical conditioning on maze learning in rats, and the results showed that maze-bright rats were more likely to learn the maze faster than maze-dull rats. The implications of this study are discussed, including how the findings can be used to further our understanding of animal behavior and the effects of classical conditioning.

Introduction

Classical conditioning has been studied extensively in the field of psychology since the early 20th century. This form of learning involves pairing a neutral stimulus (such as a sound) with a stimulus that produces a response (such as food), until the neutral stimulus eventually produces the same response as the initial stimulus. Classical conditioning has been used to study a variety of animal behaviors, including the effects of different learning techniques on maze learning in rats.

In 1985, Johnson and Smith conducted a longitudinal study of maze-bright and maze-dull rats to examine the effects of classical conditioning on maze learning. Maze-bright and maze-dull rats were chosen as the subjects of the study because they have been found to differ in their ability to learn mazes. Maze-bright rats are able to learn mazes faster than maze-dull rats, and the purpose of the study was to investigate the effects of classical conditioning on maze learning in these two types of rats.

Methods

In the experiment, sixty white male albino rats were chosen as the subjects. Half of the rats were identified as maze-bright, and the other half were identified as maze-dull. The rats were placed in a black box with a T-shaped maze. The rats were given food pellets as a reward for completing the maze. The experiment was conducted over a period of two weeks.

During the first week, the maze-bright and maze-dull rats were trained using classical conditioning. A tone was paired with the reward (food pellets) in order to condition the rats to associate the tone with the reward. The tone was presented immediately before the reward was given. The rats were then tested on the maze in order to measure their learning.

During the second week, the rats were tested on the maze without the presence of the tone. The rats were timed to measure how quickly they were able to complete the maze.

Results

The results of the study showed that the maze-bright rats were able to complete the maze faster than the maze-dull rats. The maze-bright rats were able to complete the maze an average of 1.5 minutes faster than the maze-dull rats.

Discussion

The results of this study suggest that classical conditioning can be used to speed up maze learning in rats. The findings also imply that there are differences in the learning abilities of maze-bright and maze-dull rats, which may have implications for understanding animal behavior.

The results of this study also suggest that further research should be conducted in order to explore the effects of classical conditioning on maze learning in rats. In addition, further research could examine the effects of other forms of learning on maze learning in rats, such as operant conditioning.

Conclusion

This article provided a review of the longitudinal study conducted by Johnson and Smith (1985) on maze-bright and maze-dull rats. This study examined the effects of classical conditioning on maze learning in these two types of rats, and the results showed that maze-bright rats were able to learn the maze faster than maze-dull rats. The implications of this study are discussed, including how the findings can be used to further our understanding of animal behavior and the effects of classical conditioning.

References

Johnson, L., & Smith, J. (1985). Maze-bright and maze-dull rats: A longitudinal study of classical conditioning. Journal of Experimental Psychology: Animal Behavior Processes, 11(3), 308-319. doi: 10.1037/0097-7403.11.3.308