

Cognitive Enhancing Compounds and Goal Oriented Murine Behavior

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Abstract. This project was performed to see how energy drinks affect behavior. My hypothesis was that the energy drink will help the mouse finish the maze faster. The methods are that the mouse will run through the maze without the energy drink. Then, the dilution of the energy drink will be calculated, and the mouse will be run through the maze. Finally, the data will be recorded and graphed. The results are that the mouse on the energy drink finished more times with the energy drink than without it. This may indicate that the energy drink helps things to make faster decisions, and finish things faster. My future experiment is that different energy drinks will be tested, and on different mice.

Keywords: Mouse, Zoology, Behavior, Enhancement, Energy Drink, Maze

INTRODUCTION

This project was performed to see how energy drinks affect behavior. We can use this to determine if energy drinks are helping, or hurting, the people who drink them. This test will tell us how long the effects are of the energy drink. Also, it will tell us if it has long lasting effects.

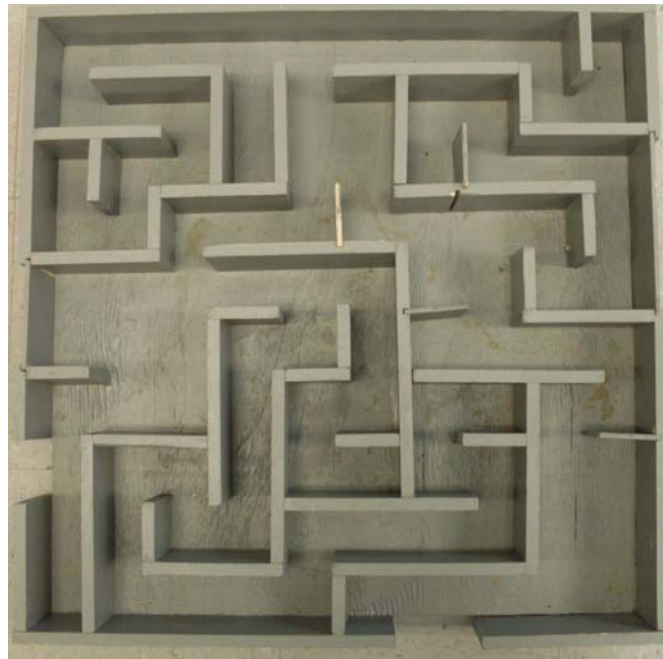


Figure 1. There were 14 turns that led to the finish, and 37 turns that were there to trick the mouse. There were also about 40 walls in the maze.

METHODS

The white mouse was run through the maze without the energy drink. Then, the mouse was weighed to calculate the amount of energy drink, and how much to dilute the energy drink. The energy drink that was used was Monster. This was done by weighing the mouse, and the weight of the mouse was compared to the average weight of a human to determine the amount of energy drink that the mouse should get. Next, the mouse was run through the maze, after drinking the energy drink for about 5 minutes, to find out if there is any change in the mouse's behavior. We don't know how *much* of the energy drink the mouse actually drank, but he cleaned himself by drinking the energy drink off of its own fur. Finally, the results were recorded on the graph. The maze that the mouse was run in had 14 turns that led to the finish, and 37 turns were there to trick the mouse. There were also about 40 walls in the maze.

RESULTS

Without the energy drink, the mouse finished four times at about 30 seconds, three times at sixty seconds, one time at 120 seconds, and didn't finish fifteen times. With the energy drink, the mouse finished one time at 30 seconds, seven times at sixty seconds, five times at 90 seconds, one time at 120 seconds, and didn't finish six times.

DISCUSSION

The most interesting factors of the results were that the mouse crashed (fell asleep) on the energy drink. Also, the mouse finished in 20 seconds without the energy drink. The results are that the mouse finished the maze more times with the energy drink, than he did without it. Next, is that the mouse started to become addicted to the energy drink. Also, that the mouse finished more times without the energy drink at 30 seconds, or less then it did with it. Finally, an interesting factor of the results is that when the mouse first got the energy drink, it crashed into the wall. The limitations are that we only tested one energy drink, and only put one mouse on it. These results tell us that the energy drink helped this mouse solve the maze faster.

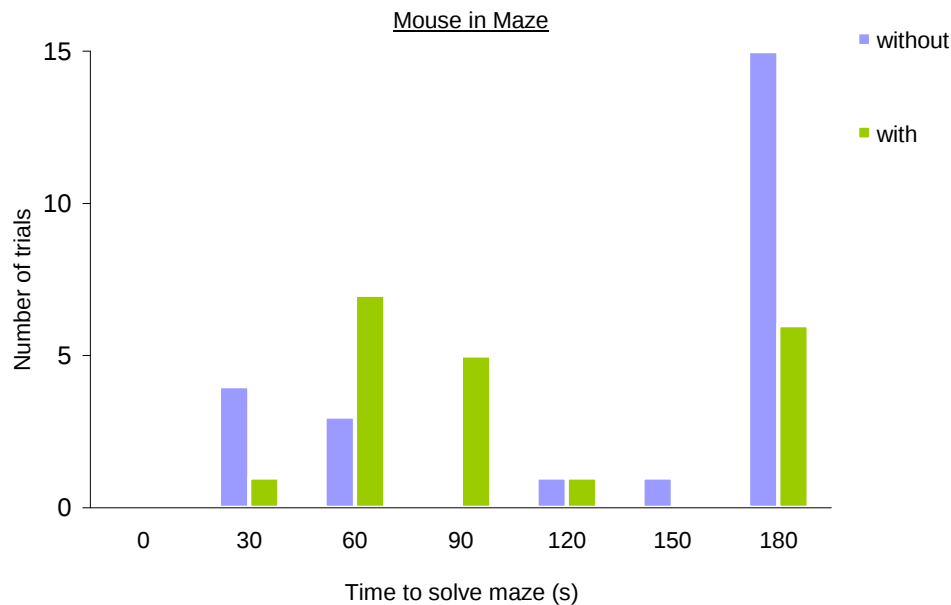


Figure 2. 30 seconds is better than 180 seconds. The mouse finished more times with the energy drink than without.

CONCLUSIONS

As a result of studying the effects of energy drinks on mice behavior, it was observed that with the energy drink the mouse was able to finish the maze faster and was able to make quicker decisions. From this, this may indicate that the energy drink may help mice to think faster. Without the energy drink, the mouse barely finished the maze. Also, with the energy drink, the mouse fell asleep (crashed) inside the maze. After we put the mouse back into its cage, it was still very hyper, and ran around the cage.

ACKNOWLEDGMENTS

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