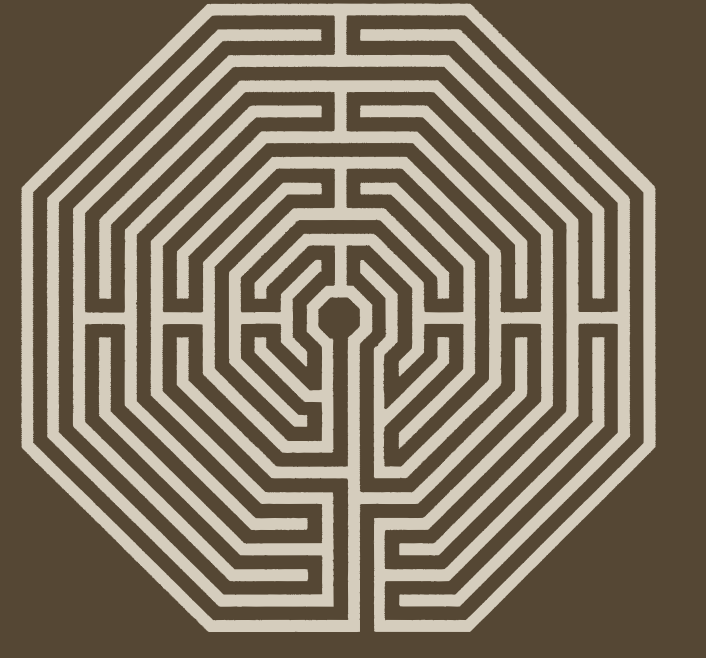




# Working Memory Retention Span in the Invisible Displacement Task in Horses



Ida Ilmer & Tomasz Smolen  
Jagiellonian University, Krakow

## Background

The results regarding working memory retention span in horses are contradictory (<10s to >30s).

Working memory can only be effectively assessed through tasks that demand both the storage and processing of information.

Studies have demonstrated that some animals are capable of maintaining an object representation in the context of invisible displacement, but horses were not tested in that matter.

## Procedure

The experiment commenced by presenting a carrot to the horse and placing it into one of two identical black buckets. During test trials, the buckets were switched, whereas in control trials, their positions remained unchanged. After a delay, the setup was brought near the stall door for the horse to select a bucket. The delays were set at intervals of 10, 30, and 45 sec.



Subject

Treat container

Treat

## Results

The larger the time delay was the lower the probability of success. ( $p = .005$ ). In the longest time delay trials the accuracy was not significantly different from random guessing level (0.5) in the experimental condition (mean = 0.64) but it was significantly above guessing level in the control condition (mean = 0.74).

