



**International Equine Science Meeting 2008**  
**University of Regensburg**  
**Germany**  
**October 3rd-5th 2008**



**Cognition Tests in Equids**  
**(*Equus caballus* and *Equus Asinus*)**

**Paolo Baragli<sup>1</sup>, Lucia Regolin<sup>2</sup>**

<sup>1</sup>University of Pisa- Dept of Veterinary Anatomy, Biochemistry and Physiology

<sup>2</sup>University of Padova

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For ages horses and donkeys constituted the most important domesticated animals. Even though equids were often bred and kept in close proximity to humans, surprisingly little is known about their cognitive abilities. Traditionally, horses are not regarded as clever animals; common beliefs maintain that the horses' behaviour is merely driven by conditioned-responses. Additionally, from an anthropomorphic point of view donkeys are believed to be „stupid“ animals.

Our study investigates the equids' ability to recover a hidden object. For this purpose the animal has to create and maintain a representation of the object and its location in space, from the moment in which it disappears from direct perception, till the moment in which it reappears. The knowledge about objects being entities that continue to exist even when they are no longer available for direct perception is referred to as the well known concept of „object permanence“.

We primarily assessed the ability of Esperia's pony and donkeys to solve a Detour problem while employing an opaque „U-shaped“ barrier. Each animal observed a food bucket moving and disappearing behind the barrier. Immediately after the object's disappearance, the animal was released to search for the object. If it solved the task by detouring the barrier it was positively reinforced.

The ability to retain in memory the hidden object as well as its spatial location was subsequently tested in the presence of two, rather than one, screens (Working Memory testing phase). The food bucket was made to move and hidden behind one of the two identical screens, while the animal was watching it. Following a pre-established delayed period of 10 sec, the animal was set free to look for the food. In such a test the detour problem is combined with the classical delayed-response task, which is in use for the comparison of memory duration in different species. In order to recover the hidden objects, animals must encode, maintain and correctly regain from their working memory the existence of the no longer visible object and its location from their working memory.

Both donkeys and ponies performed the Detour task showing to grasp the fact that an object which is no longer perceivable still continues to exist and can be regained. They also were able to correctly retrieve the goal object after a delay of 10 s in the Working Memory tasks, showing that they had encoded, maintained and correctly retrieved from their working memory the spatial location of the hidden object as well as its existence.

Nevertheless, when Standardbreds, raised in traditional stables, were tested in identical conditions to those describe for the ponies and donkeys, they could not succeed in the Detour tasks. The reason for such differences needs to be studied. Even though it would be interesting to focus on handling differences, i.e., the ponies had been living in an environment rich in natural stimuli, while the Standardbreds had lived in a man-controlled environment since birth. It is also noteworthy that, like donkeys, the Esperia's pony have a reputation for being hard to handle. Several considerations could arise from our preliminary investigations, and we will have the pleasure to leave them open for discussion.

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