

Pigs learn to understand mirrors

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A domestic pig on an organic farm in Solothurn, Switzerland. Image: Wikimedia Commons

(PhysOrg.com) -- A study of domesticated pigs has found that with just a little experimentation they can find food based only on a reflection in a mirror.

The study, carried out by Donald M. Broom, Professor of Animal Welfare at Cambridge University in the U.K., found that given a chance to familiarize themselves with a mirror first, most [pigs](#) can find food based only on its reflection. Pigs that are not familiar with mirrors look behind them for the food.

In the study, soon to be published in the journal [Animal Behaviour](#), four pairs of domesticated pigs were allowed to familiarize themselves with a mirror for five hours. They generally approached it cautiously at first, ending with their noses pressed against the mirror, but one pig charged at its reflection and broke the mirror. They looked behind the mirror, and watched their own reflections moving in front of it.

After familiarization, each pig was placed in a pen with an angled mirror and a partition, behind which were treats such as apple slices or M&Ms. Seven of the eight pigs immediately looked behind the partition and found the food. A control group of

pigs that had never seen a mirror before searched behind it for the food.

Professor Broom said the study shows pigs have a high degree of what he terms assessment awareness, or the ability to use memories and observations to quickly learn to assess a situation and act on it.

According to Marc Hauser of Harvard's Cognitive Evolution laboratory, an understanding of reflections in mirrors has been demonstrated in other nonhuman [animals](#) before, but it is paradoxical that many don't seem to recognize their own reflections.

Researchers have confirmed this by marking a spot on the animal with dye and seeing if they try to remove the spot when they see it reflected in a [mirror](#). Only a few, such as bottlenose dolphins, apes, elephants, and magpies, recognize the mark as being on their own bodies. Professor Broom said he had tried marking the pigs, but they took no notice. He said this is hardly surprising because pigs often get marks on their bodies.

The study proves pigs have awareness, and Broom said that if an animal is known to be clever it is less likely to be treated as a food-producing machine and more like a sentient being. Perhaps the conditions in which pigs are raised, including overcrowding, which do not meet the needs of the animal, may be improved as a result of the study.

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