**Are domestic pigs (*Sus scrofa domestica*) able to generalize complex human-given cues to find a hidden reward?**

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**Habituation and Training protocol (after Nawroth, Ebersbach and von Borell, 2014)**

*Habituation*

After pigs were transferred to the pig pens they received one week of habituation to reduce aggressiveness and to get familiar with the new environment. Each day, the experimenter entered the pig pens for about 20 min. During the last two days of this phase, he additionally placed a bowl with grapes into the middle of the pen to make subjects familiar with the bowls and the new food source. Subsequently, pigs received four days of habituation to the test area and the adjacent resting area before experiments began. On the first two days, they were introduced as a group for about 15 min to both areas. On the third day, they were introduced alone, again for about 15 min and could explore the areas on their own while some grapes were spread over the floor of the test area. On the fourth day of habituation, pigs were exposed alone to the test area for 15 min. This time the experimenter placed a grape into a metal food bowl (20 cm in diameter and 5 cm in height), positioned out of the subjects´ view about 1 m away from the entrance of the test area when the subject was exploring the resting area. The food reward was always put into the bowl on the side facing the entrance to avoid visual cues. Additionally, the back of the bowl was covered with black tape to prevent reflections of the food items. Subjects had to learn to approach the bowl and get the grape and were forced afterwards to leave the test area into the resting area. This was repeated ten times at minimum and for some individuals as long as they needed to approach the bowl immediately, but with no more than 20 trials within a session.

*Training*

On the first training day, two bowls were positioned 150 cm away from the entrance and 60 cm apart from each other with the experimenter kneeling about 30 cm behind the midline. When the subject entered the test area, the experimenter, holding a grape in his hand, slowly moved his hand to one (sham baited) bowl and then to the second (baited) bowl where he slowly released the reward. The subject was not constrained and free to explore the whole procedure until it picked up the grape from the baited bowl. After it found the food, the subject was slightly forced to go back into the resting area and was then allowed to re-enter the test area. This was repeated ten times. On the second training day, the distance between the two bowls was increased to 140 cm. The remaining procedure was the same. Some individuals received a third training day, similar to the second. At the end of the training, most individuals reliably followed the food item to the correct bowl and no longer explored the one that was sham baited. Individuals received a maximum of 20 to 30 training trials.

**Table** Previous individual test performances of subjects 'P', 'R', 'T' and 'U' (as reported in Nawroth, Ebersbach and von Borell, 2014) (DM = distal momentary pointing; DDS = distal dynamic-sustained pointing; PM = proximal momentary pointing; PDS-G = proximal dynamic-sustained pointing and gaze; DM-K = distal momentary pointing kneeling; DDS-K = distal dynamic-sustained pointing kneeling; behind = E behind correct bowl; incorrect = E behind incorrect bowl, dynamic-sustained pointing and gazing at correct bowl; PDS = proximal dynamic-sustained pointing; Body = dynamic-sustained body and head orientation; Head = dynamic-sustained head orientation). Individual performance above chance level (15 or more out of 20; *P* < .05) is marked bold.

| Subject | Exp1 | | | | Exp2 | | Exp3 | | Exp4 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **DM** | **DDS** | **PM** | **PDS-G** | **DM-K** | **DDS-K** | **behind** | **incorrect** | **PDS** | **Body** | **Head** | **Control** |
| | 20 trials | 20 trials | 20 trials | 20 trials | 20 trials | 20 trials | 20 trials | 20 trials | 20 trials | 20 trials | 20 trials | 12 trials |
| **P** | 11 | 9 | 9 | **17** | **16** | **17** | 13 | 7 | **19** | 11 | 10 | 5 |
| **R** | 12 | 9 | 14 | **16** | 13 | **18** | **18** | 4 | **19** | 12 | 12 | 4 |
| **T** | 11 | 13 | **16** | **20** | **20** | **20** | **19** | 11 | **20** | **19** | 11 | 9 |
| **U** | 9 | 11 | 11 | **19** | 13 | **19** | **18** | 12 | **19** | 11 | **16** | 4 |