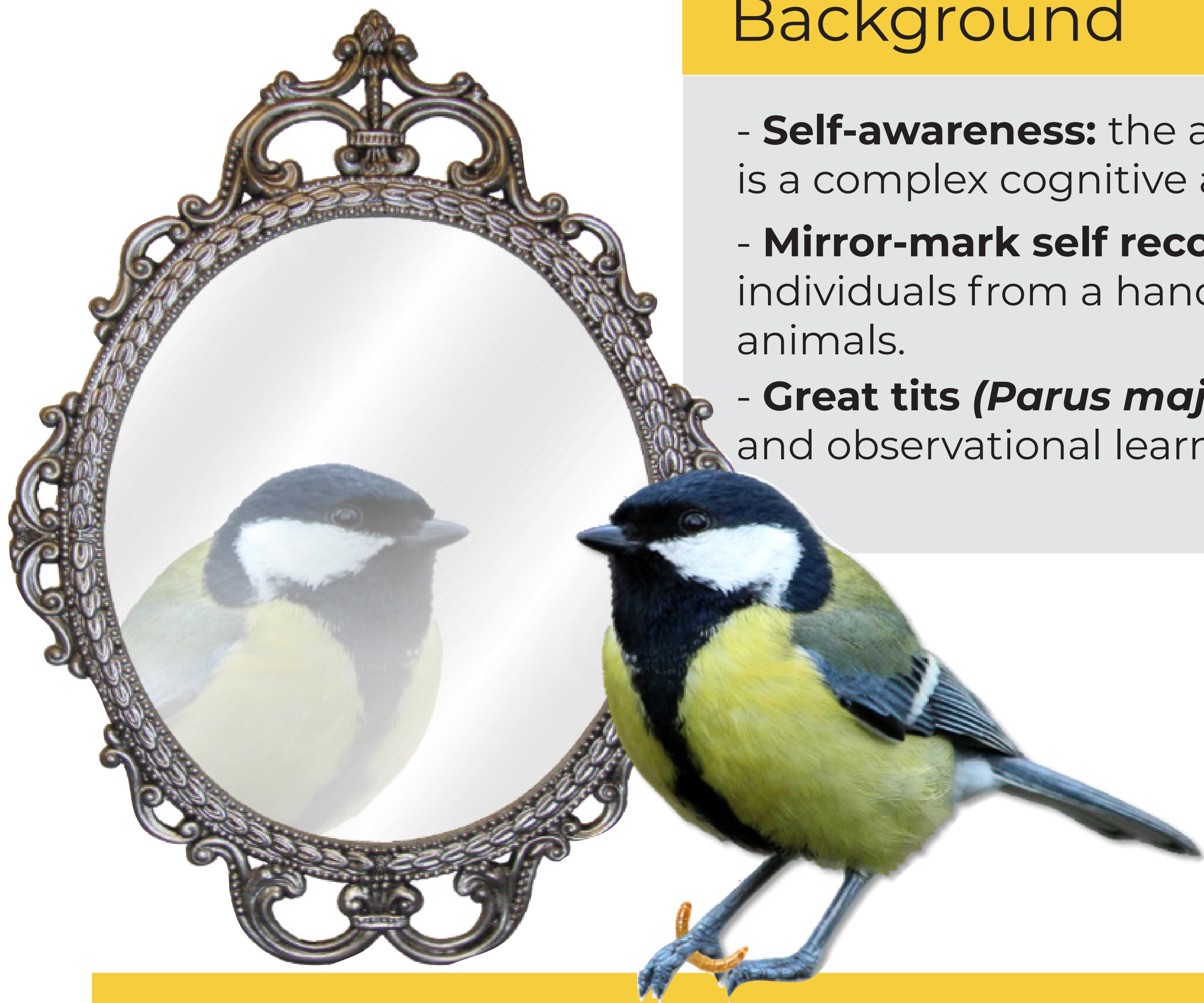


CAN GREAT TITS USE MIRRORS?

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Background

- **Self-awareness:** the ability to recognize oneself as a distinct individual from others. It is a complex cognitive ability and hard to test.
- **Mirror-mark self recognition:** the most used test for self-awareness. Very few individuals from a handful of species pass it. Might not be ecologically relevant to all animals.
- **Great tits (*Parus major*):** a small passerine (*Paridae*). Innovative, good problem solver and observational learner. Did not pass mirror-mark test.

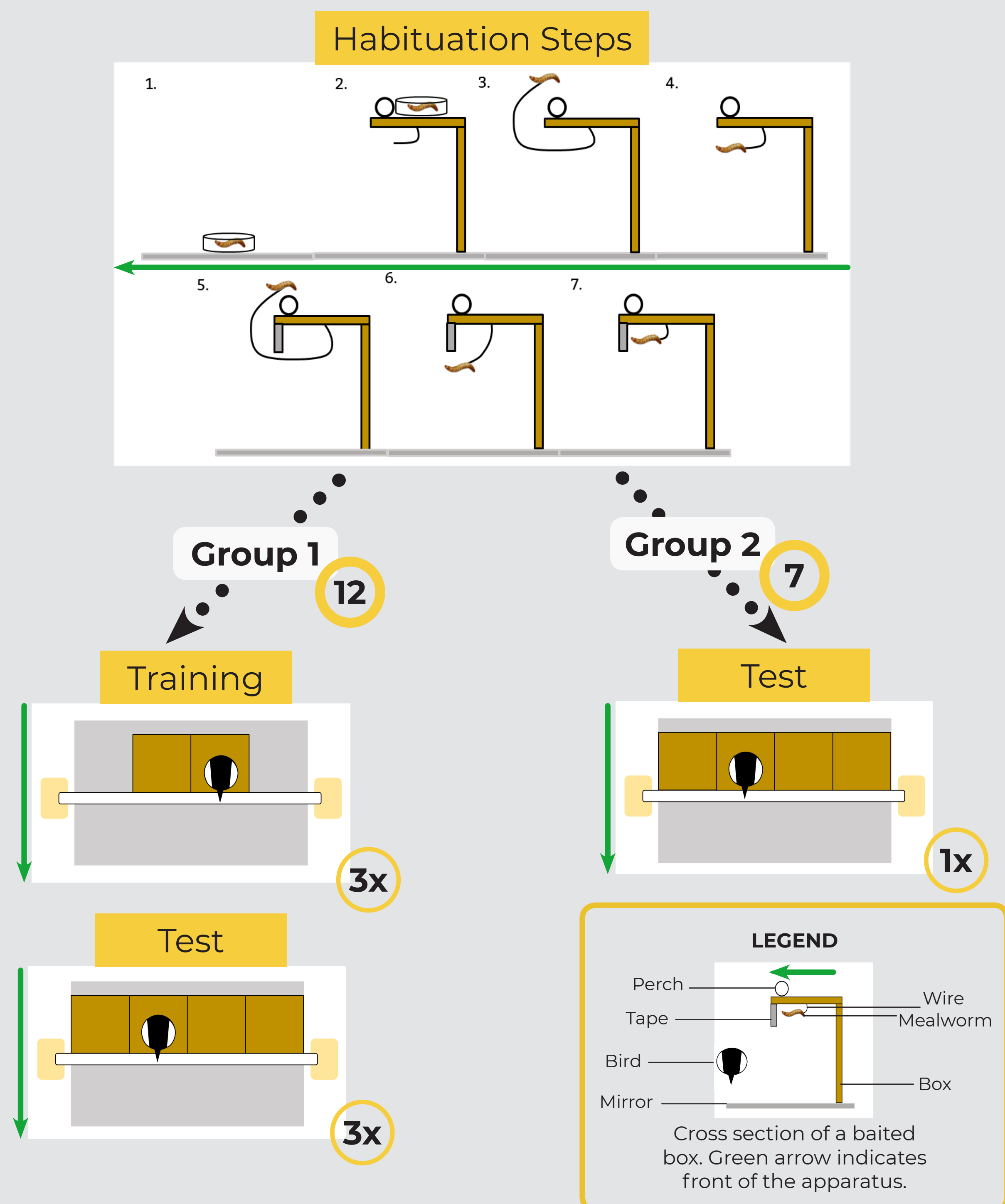
Question

Do great tits understand the concept of mirror reflection?

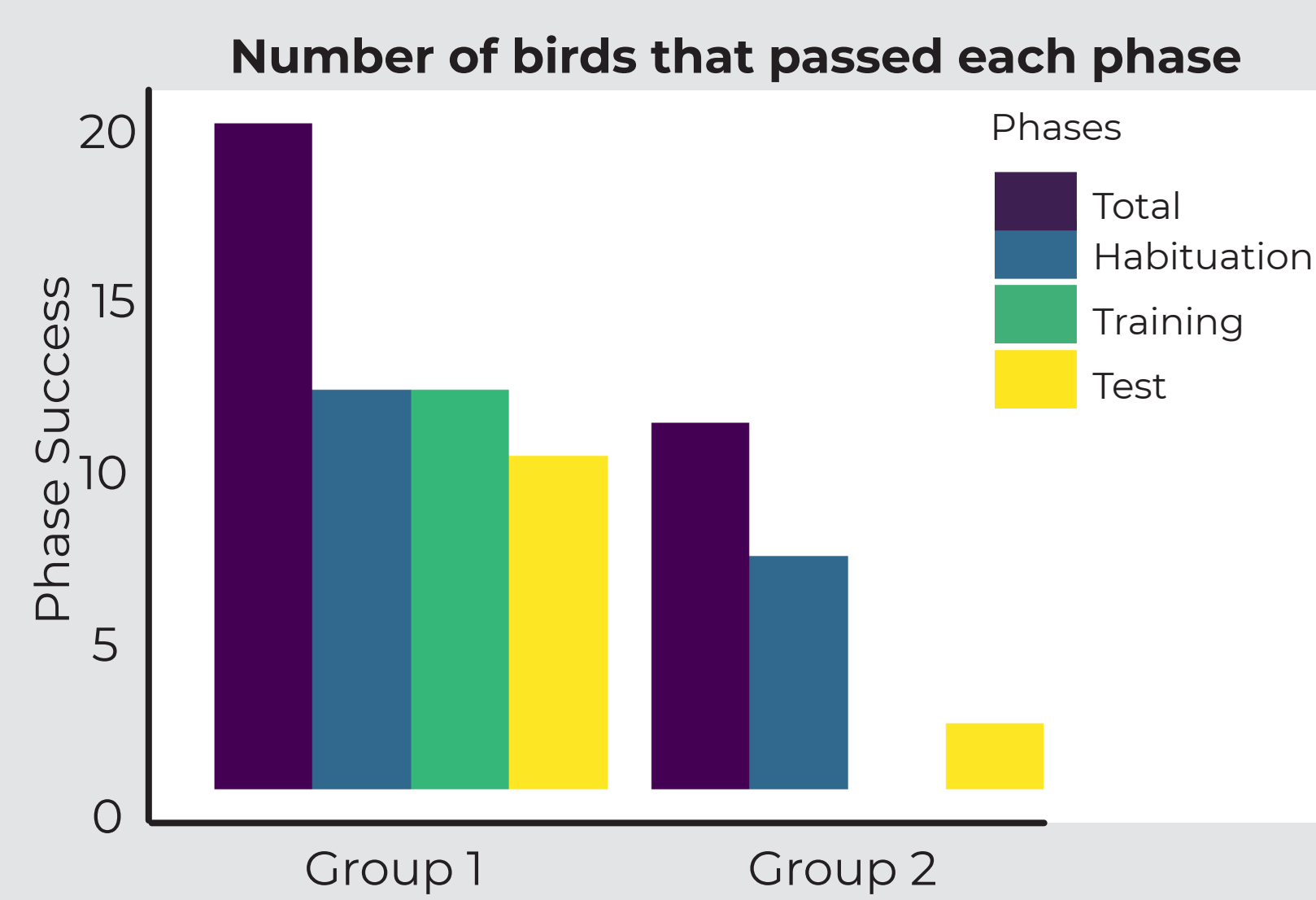
Methods

Mirror-mediated location task: find the exact location of a hidden object through the mirror, without the aid of trial and error.

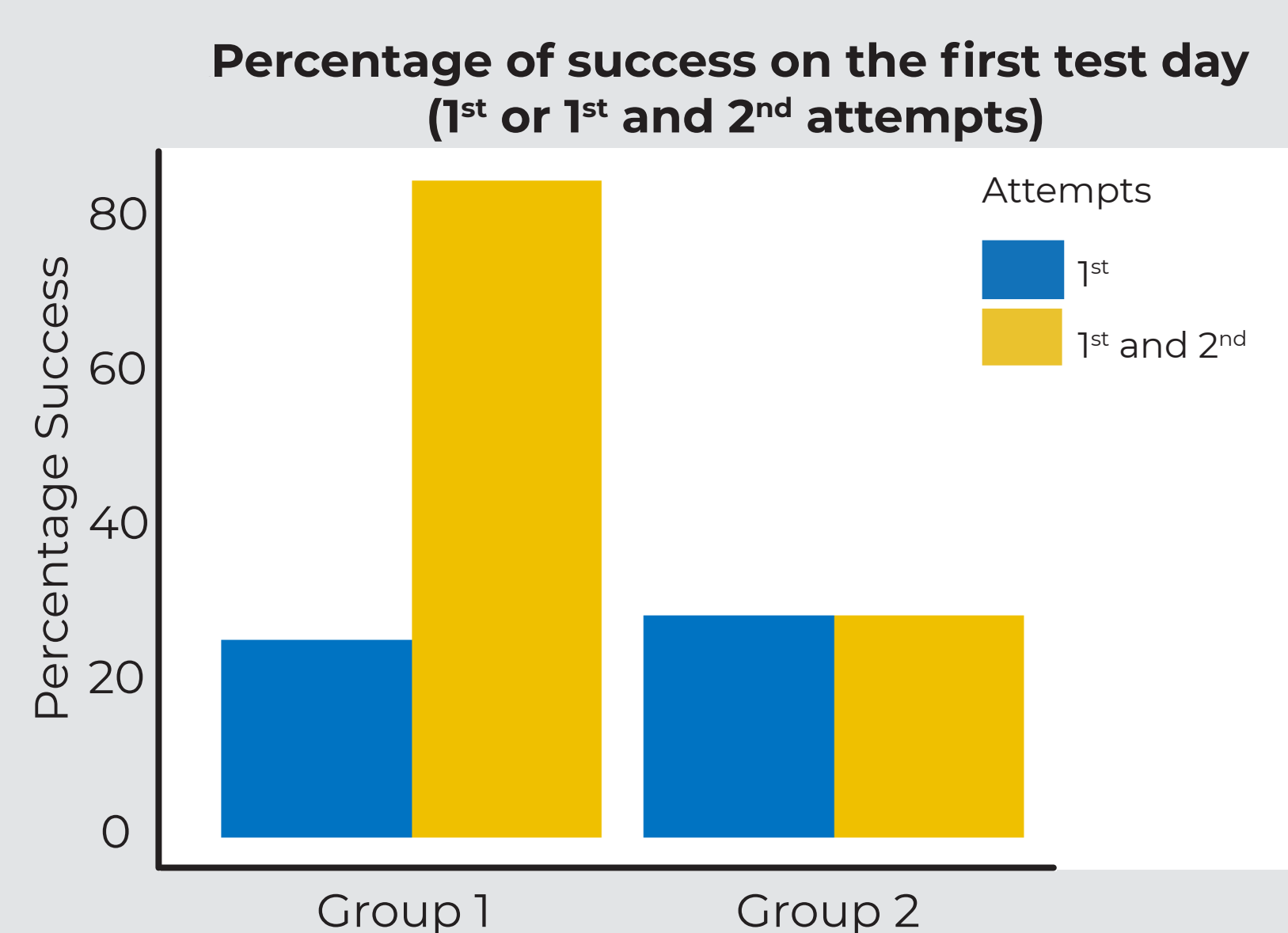
31 wild-caught great tits were studied, however, 12 were not able to perform the last step of the habituation and could not move on to the training/test.



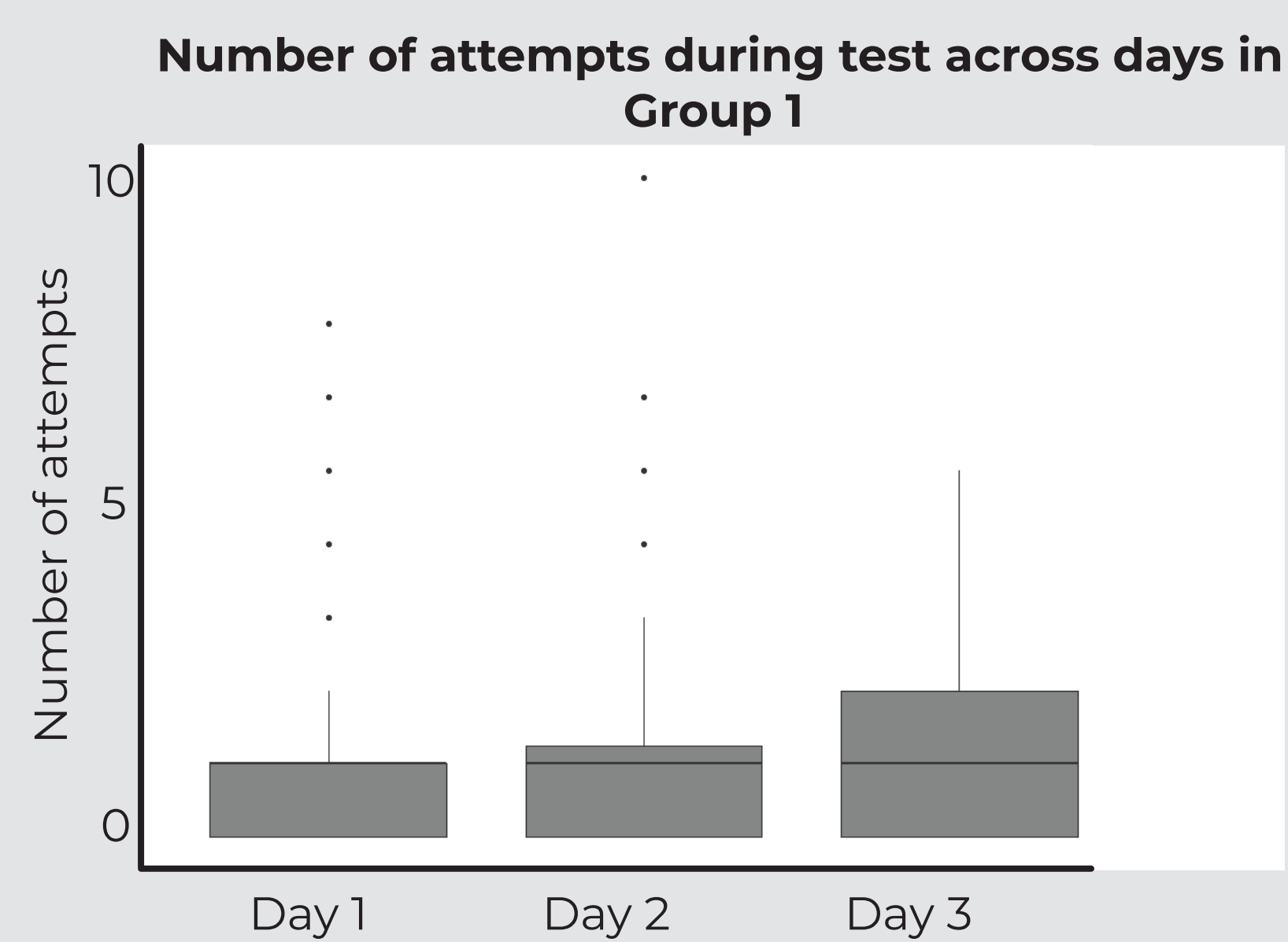
Results and Discussion



- 40% of the birds did not pass the habituation
- Failed at the last step
- Did not understand how to use a mirror
- Better after training



- Eager to explore
- Lack of self-control
- Chooses nearest box
- 2 trials to find the correct box



- Lack of motivation
- Innovative birds
- No "punishment" for incorrect choices.

Conclusions

Some great tits are able to use mirrors and understand the concept of reflection, but there is a considerable difference between birds. Therefore, the reason that great tits did not pass through the mirror-self recognition task was not an inability to use mirrors. However, other tasks should be considered when testing for self-awareness in animals, since the mirror-mark test might not always be ecologically significant.