Observations in experiments is one of the main engines of animal cognition research. The test on mirror self-recognition (MSR) is considered a trademark of cognition. To test this capacity of self-recognition with a mirror, species are evaluated with the mark test. To assess whether an individual holds this capacity, observations of its behaviour displayed in front of a mirror is key. In my talk, I will consider a study where a MSR experiment was conducted on fish.

Observational statements and their interpretation have been criticized. Consequently, there are two problems to address. (i) the conceptual question on what follows regarding cognition from a claim of the sort “the fish passes the mark test” based on animal behaviour. How can we argue for or against the implications of passing MSR for animal cognition, when we lack conceptual understanding of self-X in animals? What kind of self-X can we justifiably attribute to other species, based on their behaviour we observe? And (ii) the question of how to make seemingly subjective observations more objective evidence for fish passing the mark test. How can we make observational statements on the fish’s behavioural responses to the MSR test more objective with ML?