

A pioneering set of experiments has been important in the revolution in our understanding of animal behavior-a revolution that eroded the behaviorist dogma that only humans have minds.

These experiments were designed to detect consciousness-that is signs of self-awareness or self-recognition-in animals other than humans.

The scientific investigation of an experience as private as consciousness is frustratingly beyond the usual tools of the experimental psychologist.

This may be one reason that many researchers have shield away from the notion of mind and consciousness in nonhuman animals.

In the late 1960's, however, psychologist Gordon Gallup devised a test of the sense of self: the mirror test.

If an animal were able to recognize its reflection in a mirror as "self", then it could be said to possess an awareness of self, or consciousness.

It is known that a cat or a dog reacts to its own image in a mirror, but often it treats it as that of another individual whose behavior very soon becomes puzzling and boring.

The experiment called for familiarizing the animal with the mirror and then marking the animal's forehead with a red spot.

If the animal saw the reflection as just another individual, it might wonder about the curious red spot and might even touch the mirror.

But if the animal realized that the reflection was of itself, it would probably touch the spot on its own body.

The first time Gallup tried the experiment with a chimpanzee, the animal acted as if it knew that the reflection was its own; it touched the red spot on its forehead.

Gallup' report of the experiment, published in a 1970 articles, was a milestone in our understanding of animal minds, and psychologists wondered how widespread self-recognition would prove to be.