

Directions: *There are 2 passages in this section. Each passage is followed by some questions or unfinished statements. For each of them there are four choices marked A), B), C) and D). You should decide on the best choice and mark the corresponding letter on Answer Sheet 2 with a single line through the centre.*

Passage One

Questions 46 to 50 are based on the following passage.

The ability to make inferences from same and different, once thought to be unique to humans, is viewed as a cornerstone of abstract intelligent thought. A new study, however, has shown that what psychologists call same-different discrimination is present in creatures generally seen as unintelligent: newborn ducklings(小鸭).

The study, published Thursday in *Science*, challenges our idea of what it means to have a birdbrain, said Edward Wasserman, an experimental psychologist at the University of Iowa who wrote an independent review of the study.

"In fact, birds are extremely intelligent and our problem pretty much lies in figuring out how to get them to 'talk' to us, or tell us how smart they really are," he said.

Antone Martinho and Alex Kacelnik, co-authors of the new paper, devised a clever experiment to better test bird intelligence.

First, they took 1-day-old ducklings and exposed them to a pair of moving objects. The two objects were either the same or different in shape or color. Then they exposed each duckling to two entirely new pairs of moving objects.

The researchers found that about 70% of the ducklings preferred to move toward the pair of objects that had the same shape or color relationship as the first objects they saw. A duckling that was first shown two green spheres, in other words, was more likely to move toward a pair of blue spheres than a mismatched pair of orange and purple spheres.

Ducklings go through a rapid learning process called imprinting shortly after birth—it's what allows them to identify and follow their mothers.

These findings suggest that ducklings use abstract relationships between sensory inputs like color, shape, sounds and odor to recognize their mothers, said Dr. Kacelnik.

By studying imprinting, the authors of this study have shown for the first time that an animal can learn relationships between concepts without training, said Jeffrey Katz, an experimental psychologist at Auburn University who was not involved in the study.

Previous studies have suggested that other animals, including pigeons, dolphins, honeybees and some primates(灵长类动物), can discern same from different, but only after extensive training.

Adding ducklings to the list—particularly untrained newborn ducklings—suggests that the ability to compare abstract concepts "is far more necessary to a wider variety of animals' survival than we previously thought," Dr. Martinho said. He believes the ability is so crucial because it helps animals consider context when identifying objects in their environment.

It's clear from this study and others like it that "animals process and appreciate far more of the intricacies in their world than we've ever understood," Dr. Wasserman said. "We are in a revolutionary phase in terms of our ability to understand the minds of other animals."

46. In what way were humans thought to be unique?
- A) Being a major source of animal intelligence.
 - B) Being the cornerstone of the creative world.
 - C) Being capable of same-different discrimination.
 - D) Being able to distinguish abstract from concrete.
47. What do we learn from the study published in Science?
- A) Our understanding of the bird world was biased.
 - B) Our conception of birds' intelligence was wrong.
 - C) Our communication with birds was far from adequate.
 - D) Our knowledge about bird psychology needs updating.
48. What did the researchers discover about most ducklings from their experiment?
- A) They could associate shape with color.
 - B) They reacted quickly to moving objects.
 - C) They preferred colored objects to colorless ones.
 - D) They could tell whether the objects were the same.
49. What was novel about the experiment in the study reported in Science?
- A) The animals used received no training.
 - B) It used a number of colors and shapes.
 - C) It was conducted by experimental psychologists.
 - D) The ducklings were compared with other animals.
50. What do we learn from Dr. Wasserman's comment on the study of animal minds at the end of the passage?
- A) It is getting more and more intricate.
 - B) Research methods are being updated.
 - C) It is attracting more public attention.
 - D) Remarkable progress is being made.