

Name: _____

Date: _____

Period: _____

Weekly Reading HW

HW Wk _____

Directions: Read and annotate the passage below. Then answer the questions.

Elephants Get the Point of Pointing, Study Shows

We point to things without giving much thought to what a sophisticated act it really is. By simply extending a finger, we can let other people know we want to draw their attention to an object. As sophisticated as pointing may be, however, babies usually learn to do it by their first birthday. But scientists have found that pointing is a rare gift in the animal kingdom. Even our closest relatives, chimpanzees, don't seem to get the point of pointing. But Dr. Richard Byrne, a biologist, now says his team has discovered that elephants also appear to understand pointing. The study raises a provocative possibility that elephants have a deep social intelligence that rivals humans' in some ways.

Researchers use a simple test to see if animals understand pointing. They put food in one of two identical containers and then silently point at the one with food in it. Then they wait to see which container the animal approaches. While apes and most other animals fail the test, a few have done well. Most of them are domesticated mammals, with dogs proving to be especially good at understanding pointing. These results have prompted some researchers to speculate that during domestication, animals evolve to become keenly aware of humans. Others have proposed that the wild ancestors of these species were already aware of each other. In fact, the pre-existing pointing capacity may have made those wild species easy to domesticate.

In the experiment, Dr. Byrne set up two buckets behind a screen. The elephant watched Dr. Byrne lower pieces of fruit behind the screen and put them into one of the buckets, but couldn't see which bucket he put the fruit in. Dr. Byrne then brought the buckets out from behind the screen and stood between them. He pointed at the one with the fruit inside, and noted which bucket the elephant stuck its trunk in first. For two months, Dr. Byrne tested 11 elephants. When he crunched the data afterward, he found that the elephants picked the right bucket 67.5% of the time (by comparison, one-year-old babies score 72.7%). And when he simply stood between the buckets without pointing, the elephants stuck their trunks in the buckets at random.

Other researchers were intrigued but cautious about drawing conclusions from the study. Diana Reiss, an expert on elephants, wondered if the elephants had already learned about pointing by observing their handlers pointing to each other. Dr. Byrne plans to address this question and investigate whether wild elephants can point to each other. Dr. Byrne is also curious to know whether any other highly social wild mammals, like whales and dolphins, can pass the pointing test.

1. (RST.9-10.2) The main idea of the passage is that:
 - a. Only humans and domesticated animals can understand pointing.
 - b. Pointing is so incredibly simple to understand that even babies can do it.
 - c. Pointing is a rare gift in the animal kingdom, and only humans have received it.
 - d. Elephants may be the first non-domesticated animals to understand pointing.

Name: _____

Date: _____

Period: _____

2. (RST.9-10.2) It can be inferred that the author’s use of the word *provocative* in the first paragraph is meant to convey that:
- a. Elephants are challenging the status of dogs as the smartest animals in the world.
 - b. The study challenges the commonly held idea that humans are the only intelligent animals.
 - c. All animals are able to understand pointing – they just haven’t been tested yet.
 - d. Pointing is so simple that even babies as young as one year of age can understand it.
3. (RST.9-10.4) As it is used in the passage, the term *capacity* means:
- a. Volume
 - b. Position
 - c. Magnitude
 - d. Capability
4. (RST.9-10.2) The author’s purpose in writing the last paragraph is best described as showing:
- a. The direction of future research about pointing.
 - b. Doubt and speculation by other researchers.
 - c. Support and intrigue by Diana Reiss.
 - d. The limitations of Dr. Byrne’s study.

5. (RST.9-10.1) How did dogs acquire the ability to understand pointing?

6. (RST.9-10.1) What did Dr. Byrne do in his experiment to determine if elephants understood pointing?

Adapted from the article, “Elephants Get the Point of Pointing, Study Shows” by Carl Zimmer for The New York Times, on October 10, 2013.