



English II: Reading: Module 5: Lesson 4: Section 5

Analyze How Author's Style and Syntax Support Meaning

Analyzing an Article's Organization

Instructions: Read the following article. When you are finished, return to the lesson.

Brainy Parrot Dies, Emotive to the End

By Benedict Carey



Source: Nice photographer! Here, have a peanut, Jon Martin, Flickr

He knew his colors and shapes, he learned more than 100 English words, and with his own brand of one-liners he established himself in television shows, scientific reports and news articles as perhaps the world's most famous talking

But last week Alex, an African gray parrot, died, apparently of natural causes, said Dr. Irene Pepperberg, a comparative psychologist at Brandeis University and Harvard who studied and worked with the parrot for most of his life and published reports of his progress in scientific journals. The parrot was 31.

Scientists have long debated whether any other species can develop the ability to learn human language. Alex's language facility was, in some ways, more surprising than the feats of primates that have been taught American Sign Language, like Koko the gorilla, trained by Penny Patterson at the Gorilla Foundation/Koko.org in Woodside, Calif., or Washoe the chimpanzee, studied by R. Allen and Beatrice Gardner at the

In 1977, when Dr. Pepperberg, then a doctoral student in chemistry at Harvard, bought Alex from a pet store, scientists had little expectation that any bird could learn to communicate with humans, as opposed to just mimicking words and sounds. Research in other birds had been not promising.

But by using novel methods of teaching, Dr. Pepperberg prompted Alex to learn scores of words, which he could put into categories, and to count small numbers of items, as well as recognize colors and shapes.

"The work revolutionized the way we think of bird brains," said Diana Reiss, a psychologist at Hunter College who works with dolphins and elephants. "That used to be a pejorative, but now we look at those brains—at least Alex's—with some awe."

Other scientists, while praising the research, cautioned against characterizing Alex's abilities as human. The parrot learned to communicate in basic expressions—but he did not show the sort of logic and ability to generalize that children acquire at an early age, they said.

"There's no evidence of recursive logic, and without that you can't work with digital numbers or more complex human grammar," said David Premack, emeritus professor of psychology at the University of Pennsylvania.



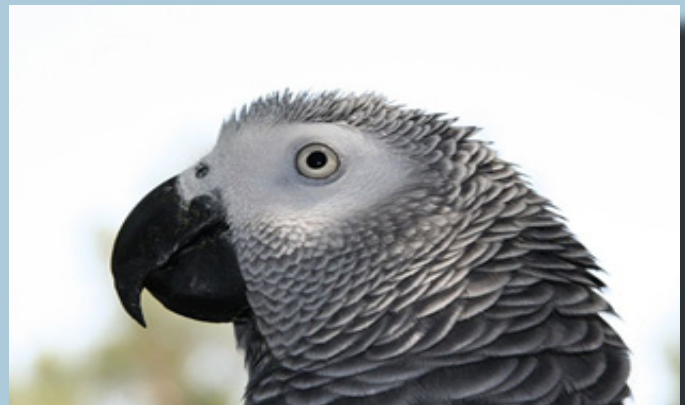
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Dr. Pepperberg used an innovative approach to teach Alex. African grays are social birds, and quickly pick up some group dynamics. In experiments, Dr. Pepperberg would employ one trainer to, in effect, compete with Alex for a small reward, like a grape. Alex learned to ask for the grape by observing what the trainer was doing to get it; the researchers then worked with the bird to help shape the pronunciation of the words.

Alex showed surprising facility. For example, when shown a blue paper triangle, he could tell an experimenter what color the paper was, what shape it was, and—after touching it—what it was made of. He demonstrated some of his skills on nature shows, including programs on PBS and the BBC. He shared scenes with the actor Alan Alda on the PBS series “Look Who’s Talking.”

As parrots can, he also picked up one-liners from hanging around the lab, like “calm down” and “good morning.” He could express frustration, or apparent boredom, and his cognitive and language skills appeared to be about as competent as those in trained primates. His accomplishments have also inspired further work with African gray parrots; two others, named Griffin and Arthur, are a part of Dr. Pepperberg’s continuing research program.



Source: Congo African Grey Parrot (*Psittacus erithacus*) -head2, Paul McGuire, Wikimedia

Even up through last week, Alex was working with Dr. Pepperberg on compound words and hard-to-pronounce words. As she put him into his cage for the night last Thursday, she recalled, Alex looked at her and said: “You be good, see you tomorrow. I love you.”

He was found dead in his cage the next morning, Dr. Pepperberg said.