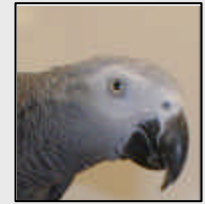




PollyGlott Computer



Prof. Irene Pepperberg
 Prof. Bruce Blumberg
 Ethan Hurdus

Benjamin Resner
 Spencer Lynn
 Braxton Thomason

A Test of Computerized Training of Referential Speech

Grey parrots (*Psittacus erithacus*) do not acquire referential English labels when tutored with videotapes displayed on a CRT screen (a) in social isolation (Pepperberg, 1994), (b) when reward for an attempted label is possible (Pepperberg, Naughton, & Banta, 1998), (c) when trainers direct birds' attention to the video monitor (Pepperberg et al., 1998), or (d) from live video input (Pepperberg, Gardiner, & Luttrell, 1999). They do learn referential identification of objects, materials, colors, shapes, categories, and many concepts (e.g., same/different, bigger/smaller, numerical quantity, absence) when trained by two live, interacting tutors (Pepperberg, 1999). We wondered if their failure to learn from video was a consequence of something as simple as the CRT screen flicker fusion rate or of more complicated factors such as their lack of control over the video presentation. We thus designed a training situation that would test for these possibilities simultaneously.

Project Design:



Several objects are embedded with RFID tags and placed on a reader.



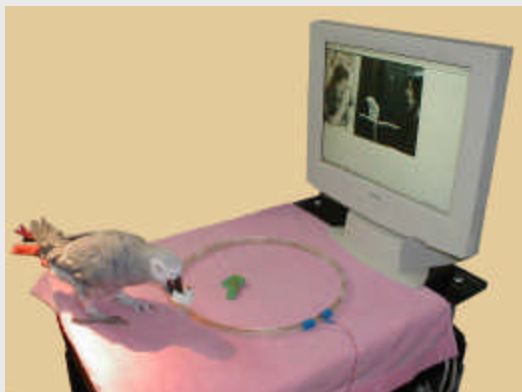
When the parrot lifts an object, the RFID connection is broken.



Breaking the connection triggers a video clip, displayed on an LCD screen, of a training session concerning the object. The clip continues as long as the bird holds the object. The clip stops when the object is dropped. Each break triggers a different, randomized clip referring to the specific object. Thus the bird's interest in the object controls his exposure to the video and his training on the object's label.



A voice-recognition system will be added to give bird vocal praise if the bird repeats the label while watching the video.



The system can be used not only as a teaching tool, but as a means of enriching the parrot's environment in the absence of its owner.