

Breaking the code on chicken clucks

A certain “took, took, took” that male chickens make functions like the cry “Hey, buffet’s open!”—the first such call to food to be fully documented in animals, claim Australian researchers.

That assertion catapults a chicken cluck into the domain of animal sounds arguably at the fringe of language. The researchers, Chris Evans and Linda Evans of Macquarie University in Sydney, aren’t going so far as to say that chickens have a fully developed language. Yet the clucks “do have many languagelike properties,” Chris Evans says.

The property they discuss in the August *ANIMAL BEHAVIOUR* is called functional reference. It’s what allows one person to say “chicken” and evoke an image of a feathered barnyard creature in the mind of the hearer. The notion may sound simple, but demonstrating that an animal does it has been anything but. Some people inclined to accept the chicken evidence are likely to debate whether clucks are the first animal calls shown to function as references to food.

Not a decade ago, Chris Evans notes, several theorists declared that there was no convincing evidence for functionally referential food calls. However, data have been building for other kinds of referential calls, mostly alarms, in primates and chickens (*SN*: 9/12/98, p. 174).

Just in case anyone’s inclined to snicker at chicken science, Chris Evans points out that these wonderful creatures make some 20 distinct sounds, can recognize each other, learn from their mothers, and perform “spectacular” displays such as a courtship waltz.

Earlier chicken studies proved part of the case for referential food calls. They showed that males make the “took” sound specifically around food. Males give the call when alone with food but “took” more when a hen appears near the feast. She typically struts over to feed, often picking a tidbit from his beak.

To study the hen’s reaction, Chris Evans and Linda Evans played recorded calls while videotaping 22 Sebright bantams. When the hens heard the “took,” they spent extra time peering at the ground, a behavior unique to feeding. Chris Evans says, “It’s like a myopic person who’s lost a contact lens.”

The chickens, however, did not search when they heard a similar “took, took” with a lower pitch or listened to a singing whistle that mates often make in turn. Comparing the reactions convinced Chris Evans and Linda Evans that “took” does not just jolt the hens into extra activity or invite social contact.

The work also persuaded Marc D. Hauser of Harvard University that “took, took, took” functions as a reference to food. What he predicts will be especially controversial is the report’s remarks about other animals. His own playback experiments with rhesus monkeys turned up signs of referential food calls, he says.

Hauser also cites reports that a specific call often sends toque macaques running to feed while giving the same call. “This seems to me at least as strong a response as the chicken’s head orientation,” he says.

Chris Evans notes that the whole debate jangles human nerves because of its implications for “the nature and extent of human uniqueness.” In some ways, the discussion is “a narcissistic enterprise,” he says.

—S. Milius