

New research proves parrot chicks learn their names from parents

July 14 2011, by Bob Yirka

In a bit of interesting research whose missions was to find out if green-rumped parrots learn the calls that are used by themselves and others to identify them in their flock, or if such calls are innate, and others learn the name from the chicks, researchers from Cornell University swapped eggs between nests in a wild group of the birds, then set about filming and recording the action as it unfolded. The results of their efforts have been published in *Proceedings of the Royal Society B*, and it turns out it's the parents of the chicks, generally called parrotlets, that give their young their identifiers, rather than simply listening to what originates from the little chicks beaks when they begin chirping.

While this research is interesting for its own sake, it's also interesting because very few animals are known to use identifiers to distinguish members from one another. Up till it was found in [parrots](#), only humans and dolphins have been known to do so. Giving group members names, in addition to demonstrating some degree of intelligence, also helps groups maintain social order. With the parrots, it's needed because the flocks change members frequently, so everyone having names makes it easier for everyone to keep up with who's who. Also, green-rumped parrotlets need some means for identification because they continue to rely on Mom and Dad to feed them for up to three weeks after they've left the nest. Getting lost in a crowd would not be a good thing at that point.

[Parrot communication in the wild](#) from [Karl Berg](#) on [Vimeo](#).

To prove it was the [parents](#) creating the names, the researchers went down to a Venezuelan research site where green-rumped parrots have been studied in the wild for 24 years. There they installed video cameras and microphones in nests and swapped the [eggs](#) of half of the study group, and then recorded the results as they unfolded. The reason egg swapping was needed was because it has already been shown that parrots and their offspring sound more alike in their calls than they do others in their [flock](#). Thus, if the calls and unique identifiers given to the young were more like their foster parents, than their biological parents, it would show that the calls were learned, rather than innate; which is of course how it turned out. The researchers also studied the audio/video carefully and discovered that the parents actually named each individual offspring before the little guys themselves could utter a peep, proving once and for all that it was in fact, the parents doing the naming.

It has been suggested that such research might have implications for gaining new insights into how humans learn to talk and why we name our own offspring, and what its impact has on our own species as a whole.

More information: "Vertical transmission of learned signatures in a wild parrot" [doi: 10.1098/rspb.2011.0932](https://doi.org/10.1098/rspb.2011.0932)

Abstract

Learned birdsong is a widely used animal model for understanding the acquisition of human speech. Male songbirds often learn songs from adult males during sensitive periods early in life, and sing to attract mates and defend territories. In presumably all of the 350+ parrot species, individuals of both sexes commonly learn vocal signals throughout life to satisfy a wide variety of social functions. Despite intriguing parallels with humans, there have been no experimental studies demonstrating learned vocal production in wild parrots. We studied contact call learning in video-rigged nests of a well-known marked population of green-rumped parrotlets (*Forpus passerinus*) in

Venezuela. Both sexes of naive nestlings developed individually unique contact calls in the nest, and we demonstrate experimentally that signature attributes are learned from both primary care-givers. This represents the first experimental evidence for the mechanisms underlying the transmission of a socially acquired trait in a wild parrot population.

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