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The Biology of fun: Do birds just want to have a good time?

Carley J. Langley
langleycj@vcu.edu

Jonathan R. Moore
Virginia Commonwealth University, s2jrmoor@vcu.edu

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C.J. Langley and J.R. Moore
Department of Biology, Virginia Commonwealth University, Richmond VA 23834

Fun: spontaneous, intrinsically motivated, exaggerated, and repetitious, occurring only in the absence of stress.

A History of Fun in Birds?

- Until recently mammals have been the primary focus of all play-related research.
- Playing was a phenomenon infrequently encountered and observed in reptiles, fish, and birds and it was mostly assumed to be rare or not at all possible.

Purpose

- The intention of this research project is to explore the ecological study of playfulness and what appears to be fun in a broad range of bird species. We attempted to answer:

1. **Do birds exhibit playfulness and use fun?**
2. **If so, how have these behaviors contributed to their evolutionary success?**

Peregrine Falcons (BELOW) develop hunting skills by play diving when young and having "aerial dogfights" with siblings.

Keas (ABOVE) play fight with each other even into adult hood.

Many ravens (ABOVE) and jackdaws have exhibited complex social games such as "follow the leader."

Motmots (ABOVE) bounce their food before eating with one another even in adulthood.

Current Work

- It has been recognized that play-like behavior is observable in *at least a few species* within the avian taxa, to include the seven families represented here.
- Many birds have been observed to play socially, but very few species have exhibited a full range of play behaviors in the way that mammals have done.
- Parrots and corvids generally exhibit more extensive social play than other birds, in particular the keas (*Nestor notabilis)* and ravens (*Corvus corax*).
- Young birds play first to develop their locomotory skills at finding food, capturing prey, and fighting before they can become independent from their parents.
- Young also gain social experience from play behaviors with fellow fledglings with games such as "follow the leader" and "king of the mountain."
- Adults also play to establish social connections in structures.
- Even captive birds demonstrate play behaviors when given sticks, rocks, or other objects to utilize.

Herring Gulls (BELOW) have been observed playing games of "drop and catch" along the shore with rocks and fish.

Royal Terns (LEFT, BELOW) play dive and play drop fish when juveniles; Yellow-Eyed Juncos (RIGHT, BELOW) who are allowed to play when young show increased abilities to scan for predators and increased rates of pecking and feeding when older.

Future Directions

- Research has only focused on a few species known to play like keas, ravens, parrots and magpies.
- While it has been confirmed that many birds play, whether birds sometimes play for fun (rather than strictly for social or locomotory advantage) is still unknown.
- Play in other non-mammals, such as reptiles and invertebrates is also under current exploration.

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