



Communication & Cognition by Cooperative Cuckoos

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Abstract: To survive and reproduce, all organisms must make decisions using information from their environment. Information broadly comprises two sources: personal, that directly acquired from the environment, and social, that gleaned from conspecific and heterospecific behaviors. Such information can either align or conflict, posing a crucial problem for wild animals: how do individuals prioritize or combine information in the face of immediate life-or-death decisions? I am studying this question in the obligate group-living Greater Ani in central Panama. First, I experimentally established that anis use a functionally referential alarm call- a vocalization produced upon detection of an aerial threat that also elicits an appropriate response (moving to cover). Then, I used a prime-probe playback experiment to manipulate personal-social information agreement by pairing this alarm call (probe) with one of three preceding heterospecific bird calls (primes). Preliminary analyses suggest that anis prioritize social over personal information, i.e., they accept Type I errors, possibly because the potential cost of a Type II error is high. When personal and social information aligned, though, anis were more likely to repeat the alarm call, an apparent information cascade. This work suggests nuanced decision-making by wild animals under potentially life-threatening situations.

Wednesday, March 4th | 2:00pm-3:15pm | Science Hall 126 & Zoom

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