

UNIVERSIDADE FEDERAL DO RIO GRANDE DO NORTE CENTRO DE BIOCIÊNCIAS PROGRAMA DE PÓS-GRADUAÇÃO EM PSICOBIOLOGIA Conceito 6 – CAPES



## EDITAL № 05/2019 – PPg Psicobiologia/UFRN SELEÇÃO PARA O MESTRADO EM PSICOBIOLOGIA DA UFRN – TURMA 2020

## **PROVA DE INGLES**

Código do Candidato: EXPECTATIVA DE RESPOSTAS

The male and female perspective in the link between male infant care and mating behaviour in Barbary macaques Kuběnová et al. Ethology. 125:914–924, 2019

## Abstract

Infant care from adult males is unexpected in species with high paternity uncertainty. Still, males of several polygynandrous primates engage in frequent affiliative interactions with infants. Two non-exclusive hypotheses link male infant care to male mating strategies. The paternal investment hypothesis views infant care as a male strategy to maximize the survival of sired offspring, while the mating effort hypothesis predicts that females reward males who cared for their infant by preferably mating with them. Both hypotheses predict a positive relationship between infant care and matings with a particular female. However, the paternal investment hypothesis predicts that increased matings come before infant care whereas the mating effort hypothesis predicts that infant care precedes an increase in matings. Both hypotheses are usually tested from the perspective of the proportion of matings and care that individual females engage in and receive, rather than from the perspective of the care and mating behaviour of individual males. We tested the relationships between care and mating from both female and male perspectives in Barbary macaques. Mating predicted subsequent care and care predicted subsequent mating when viewed from the male but not the female perspective. Males mainly cared for infants of their main mating partners, but infants were not mainly cared for by their likely father. Males mated more with the mothers of their favourite infants, but females did not mate more with the main caretakers of their infants. We suggest that females do not choose their mating partners based on previous infant care, increasing paternity confusion. Males might try to increase paternal investment by distributing the care according to their own instead of female mating history. Further, males pursue females for mating opportunities based on previous care.

Responda 2 das questões abaixo relacionadas:

1. Quais e o que dizem as hipóteses testadas nesse artigo?

2. O que os autores testaram nesse artigo?

3. Quais as diferenças de estratégias de machos e fêmeas descritas pelos autores?

Complex patterns of dopamine-related gene expression in the ventral tegmental area of male zebra finches relate to dyadic interactions with long-term female partners

Alger et al.. Genes Brain and Behavior UNSP e12619

Dopaminergic projections from the ventral tegmental area (VTA) to multiple efferent targets are implicated in pair bonding, yet the role of the VTA in the maintenance of long-term pair bonds is not well characterized. Complex interactions between numerous neuromodulators modify activity in the VTA, suggesting that individual differences in patterns of gene expression in this region may explain individual differences in long-term social interactions in bonded pairs. To test this hypothesis we used RNA-seq to measure expression of over 8000 annotated genes in male zebra finches in established male-female pairs. Weighted gene co-expression network analysis identified a gene module that contained numerous dopamine-related genes with TH found to be the most connected gene of the module. Genes in this module related to male agonistic behaviors as well as bonding-related behaviors produced by female partners. Unsupervised learning approaches identified two groups of males that differed with respect to expression of numerous genes. Enrichment analyses showed that many dopamine-related genes and modulators differed between these groups, including dopamine receptors, synthetic and degradative enzymes, the avian dopamine transporter and several GABA- and glutamaterelated genes. Many of the bonding-related behaviors closely associated with VTA gene expression in the two male groups were produced by the male's partner, rather than the male himself. Collectively, results highlight numerous candidate genes in the VTA that can be explored in future studies and raise the possibility that the molecular/genetic organization of the VTA may be strongly shaped by a social partner and/or the strength of the pair bond.

## Responda 2 das questões abaixo relacionadas:

1. Qual a hipotese do estudo?

Qual a conclusão do estudo?