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DPZ

A3

Predictors of curiosity in Guinea baboons

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Motivation

- Individuals vary in their disposition to seek new information, but the determinants of this variation are not well understood
- We will address this question in free-ranging (Fig. 1a) and captive Guinea baboons, well known for their high degree of social tolerance

Fig. 1a: Guinea baboons at our field site Simenti in Senegal.

1b: First pilot experiments

Preliminary work

- Proof of principle of testing free-ranging subjects (Fig. 1b) [1-2]
- Previous joint work[3]
- Availability of long-term demographic data[4]

Objectives

- Clarify extent of individual variation in curiosity-driven behavior (CDB) and how it relates to early-life adversity and living conditions
- Explore links between social information use and CDB
- Investigate the relations between uncertainty monitoring and CDB

➢ This project will contribute to the overarching question: **When are we curious?**

➢ It will also shed light on the mechanism by asking: **How are we curious?**

?

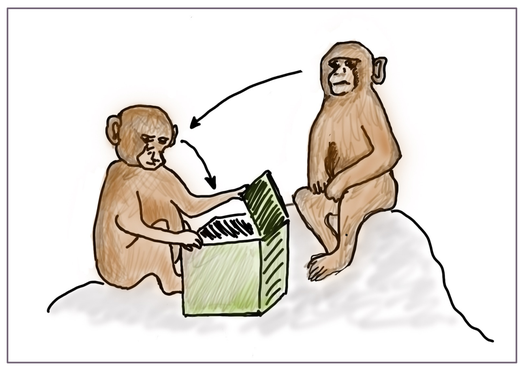
How do early-life experience and environmental factors impact curiosity in a nonhuman primate species?

Methods

Behavioural observations and analysis of long-term data

Field experiments on free-ranging subjects

Guinea baboons at the Nürnberg Zoo currently undergo training for cognitive testing



Experimental set-up for PhD project: What are the predictors of the likelihood to approach? Are by-standers influenced by the first subject's responses in their decision to approach?

Hypotheses:

- Juveniles that experienced early-life adversity are less curious
- Alternatively, surviving juveniles might be particularly bold and hence more curious
- Captive subjects are generally more curious due to higher exposure to artifacts and lower vulnerability

Cross-project collaborations

- Strong **conceptual link** with **A1** via shared interest in Theory of mind and metacognition.
- Focus on **ecologically valid settings** in experimental designs shared with **A1**, **B2**, **B3**, **B4**
- Shared focus with **B2**, **B4**, **C4**, on the impact of early life experience

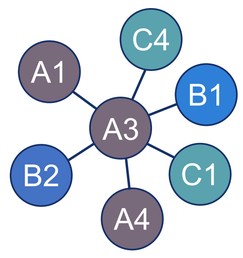


Fig. 2: Some of the key collaboration partners of doctoral researcher working on Project A3

Potential PhD projects

1. How early-life adversity impacts the use of social information in curiosity-driven behavior
2. How life in captivity affects risk-taking and curiosity-driven behavior
3. Understanding the roots of post-decisional curiosity

References

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2. Treschnak, D., Zinner, D., & **Fischer, J.** (2023). Male Guinea baboons may be oblivious to associated females' whereabouts. *Animal Behaviour*, 201, 53-62.
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4. **Fischer, J.**, *et al*. (2017). Charting the neglected West: The social system of Guinea baboons. *American Journal of Physical Anthropology*, 162(S63), 15-31.