Exopsychology and the human perspective on the extraterrestrial (mind)

Niklas A. Döbler and Claus-Christian Carbon
University of Bamberg, Departement of General Psychology and Methodology

Download Döbler & Raab (2021): „Thinking ET – A discussion of exopsychology“[1]

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Methods

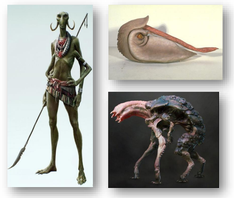
- *N*=75 persons (50F, 24M, 1 NA, M_{Age} = 28.27) rated 54 pictures of cinematic depictions of ETs on different scales (1-5)
- Prediction of *trustworthiness* as central outcome
- Prior μ = 0, *SD* = 1

Findings

- Psychological similarity is more important than physical human-likeness
- Liking as strong positive, aggressiveness as strong negative predictor
- Intelligence plays subordinate role

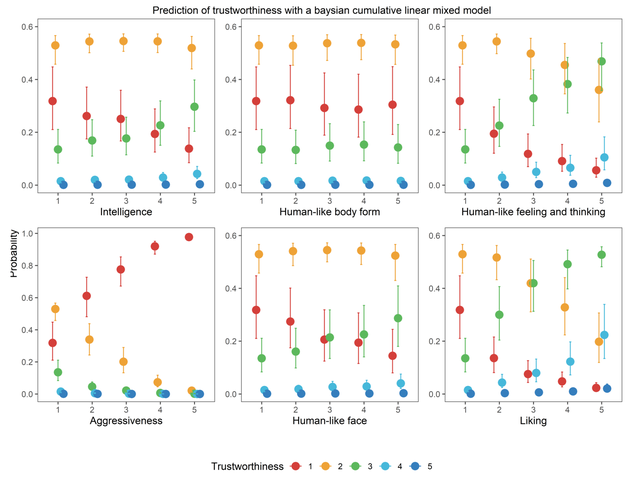
Limitations

- Comparability between images
- Missing values due to decision not to answer (*M* = 5.30%, *SD* = 0.54)

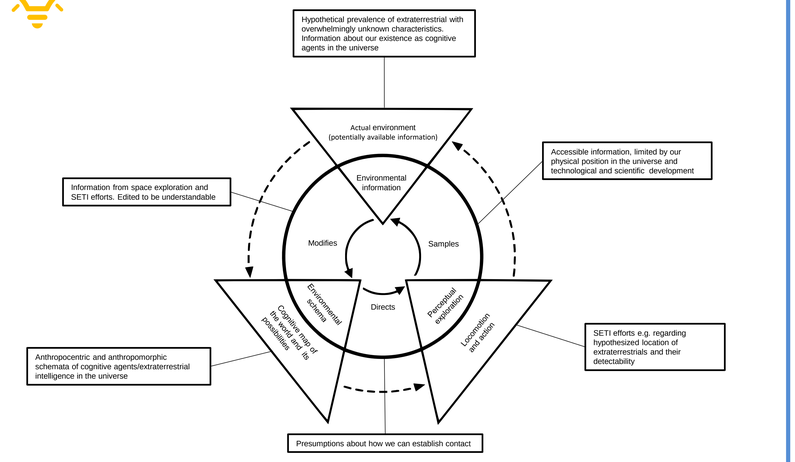


Results

- 49/75 (65%) participants considered the existence of extraterrestrial intelligence as likely or very likely



SETI underlies the same cylic process as everyday perception



Perceptual cycle by Ulric Neisser, applied to SETI. Figure taken and slighty modified from Döbler & Raab (2021)

How we think about them...

Further research on how we think about ET

Kwon et al. (2018):	Bains & Petowski (2021):	Routledge et al. (2017):
Hypothetical reaction on discovery of microbial ETL tends to be positive	Astrobiologist adjust probability assessment of ETL but not in a baysian way	Paranormal belief in ET satisfy the search for meaning

Exopsychology

How do *we* think extraterrestrials?
→ Empirical focus on **human** beliefs, attitudes, and representations

How do *extraterrestrials* think?
→ Theoretically investigating cognition, behavior, affects, and motives of **extraterrestrial agents**

...carves the modalities of contact

CENTRAL PREMISES

- **Exopsychology** rejects the notion of intelligence due to the concept's inadmissible anthropocentric normativity. Yet, it acknowledges the importance of it when thinking and talking SETI and extraterrestrials
- Employs *admissible* over *inadmissible* anthropocentricism to generalize our condition to the stars but trades definitional acuity for applicability

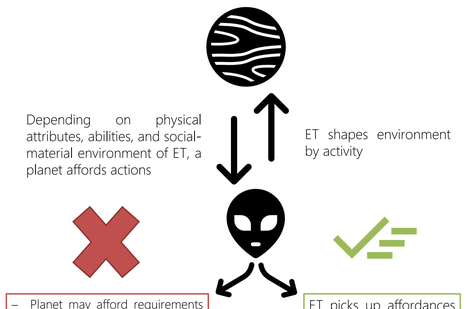
~~Extraterrestrial intelligence~~ → Extraterrestrials seen as:

High-cognitive	Agents
– Cognition as basic mental processes to organize, employ and utilize knowledge – Continuum, inherent to every instance of life – „Higher“ cognition: Thinking about thinking – Meta-cognitive execution of behavioral and mental protocols and monitoring the outcomes	– „Behavior governed by thought“[2] – Purposefully interact and engage with the environment

Implications

- SETI is first and foremost looking for higher cognition and agency – not plain intelligence
- Responsible for any technosignature, extraterrestrials must utilize their knowledge to purposefully adapt the environment to their demands
- Success of any first contact requires reciprocal psychological compatibility

One small step further



- Mere engagement is not enough. Necessary skills and abilities, depending on socio-material and individual characteristics to exploit **multiple relevant affordances** must be present to engage with space research
- Organisms respond to relevant affordances to **improve their grip on the situation** and reduce an internal disequilibrium[3]
- Open questions:
  - Which environmental and individual features bring forth relevant affordances for technology and space research?
  - How can METI create a relevant affordance and evoke action readiness to respond?
  - Which quality has the internal disequilibrium?

→ **Think about yourself: Why are you interested in space and its inhabitants?**
→ **What do you need to pursue your research?**

Contact: Niklas A. Döbler: niklas.doebler@uni-bamberg.de - https://orcid.org/0000-0001-7935-727X

[1] Döbler, N. A. & Raab, M. (2021). Thinking ET: A discussion of exopsychology. *Acta Astronautica, 189*, 699–711. https://doi.org/10.1016/j.actaastro.2021.09.032
[2] Dretske, F. I. (1999). Machines, plants and animals: The origins of agency. *Erkenntnis, 51*(1), 19–31. https://doi.org/10.1023/A:1005541307925
[3] Rietveld, E., Denys, D. & van Westen, M. (2018). Ecological-enactive cognition as engaging with a field of relevant affordances: The skilled intentionality framework (SIF). In A. Newen, L. de Bruin & S. Gallagher (Hrsg.), *The Oxford Handbook of 4E Cognition* (S. 41–70). Oxford University Press.