## **Extended Animal Cognition**

The extended cognition thesis (EC) claims that, at times, an agent's cognitive system includes extracerebral components amongst its realizers [1]. If EC is true, then, extra-cerebral props may literally be cogs and gears of an agent's cognitive system.

Thusly formulated, EC is a thesis which can be applied to all sorts of cognitive agents. Yet, barring few notable exceptions [2,3], EC has typically been applied exclusively to human cognizes. Indeed, almost all EC-supporting case studies [e.g. 1] and experiments [e.g. 4] involve only human participants. Further, paradigmatically cognition-extending props such as notational systems [5] or internet-based technologies [6] are used only by (highly enculturated) human agents.

This narrow focus on human cognition led EC to acquire an anthropocentric bend. EC ended up suggesting a form of human exceptionalism: whilst human cognition extends, non-human cognition remains (by and large) skull-bound. [7]

Here we wish to reverse this anthropocentric reading of EC: we will argue that, if human cognition extends, then non-human animal cognition extends too. To defend this claim, we will adopt a simple argumentative strategy: we will consider several paradigmatic human cognitive extensions and show that they all have close animal analogs. More in detail, we will discuss "intrabodily cognitive extensions" [8], epistemic action through which an agent structures its own flow of information [9] and the usage of external marks to offload cognitive processing [10] claiming that, if in these cases human cognition extends, then animal cognition extends too. We will then conclude that EC should shed the anthropocentric tones it, perhaps unwillingly, came to have.

## References

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