

## LANGUAGE AS EXPLICANDUM? DISSECTING THE INTERACTION ENGINE HYPOTHESIS

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Human language supposedly evolved as a new solution to an old problem: the coordination of joint action [1–3]. From this viewpoint, the advent of language was preceded by the evolution of a special form of sociality [1], in which humans interact via a unique set of cognitive and behavioral abilities, dubbed as the “interaction engine” (IE) [1]. This assemblage becomes apparent early in human development, and then later, with the addition of language, enabling the participation in sophisticated collaborative activities across cultures [4].

The IE has been hypothesized to play a key role in the origin of human communication [3,5], since its structural properties are manifest in interactions even when language is absent, in the form of face-to-face orientation in opening phases and closing phases of interactions [6–12], joint attention [13], reasoning about other’s beliefs and intentions [14,15], and common ground [16,17]. Referring to common ground knowledge permits the coordination of joint action with reduced communicative efforts, for example when interactions between partners occur repeatedly [18], partners share an extensive interactional history [19], or a common cultural

knowledge of interactional scripts and routines [e.g., betel-nut chewing sessions among Lao-speaking women of rural Laos, 20].

Recently, it has been argued that the IE's elements have different evolutionary origins, supporting the idea of a stratified, gradual evolution toward modern human communication [21]. Some of the elements may indeed be rooted in our primate heritage, evinced by recent findings revealing great apes' abilities to engage in communicative turn-taking [22,23], a face-to-face orientation during opening and closing phases [10,23–25], and communication during collaborative tasks [26]. Therefore, it is timely to review these findings and gather more comparative data on the communication of non-human animals in collaborative tasks and contexts, allowing us to dissect distinct IE elements with regard to key roles as stepping stones towards language.

The aim of this workshop is thus to explore the IE hypothesis in greater detail. In part 1, we aim at discussing new evidence from human and non-human primate research, focussing on the role of communication for joint action coordination and shared IE abilities. In part 2, we then aim at dissecting the IE hypothesis, by distinguishing human-unique versus shared elements, as well as discussing possible alternative routes toward (or critical prerequisites for) language evolution.

**List of speakers** (*Abstracts follow*)

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