

# Exploring the hypothesis of the gestural origin of language : contribution of the primatological studies

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## abstract

My talk will be concerned with the question of the origin of language. I will explore in particular the role of gestural communication and its lateralization in order to show that the neurobiological and behavioral prerequisites of human language are present in the ancestors (anthropoids and monkeys) of the human species. I will defend the hypothesis that lateralization for language may have evolved from a gestural system of communication lateralized in the left hemisphere.

My talk will start with a review of the gestural origin's hypothesis. I will then move to considerations concerning the strong link between motor functions (hand use and manual gestures) and speech in humans. The main part of the talk will be devoted to present the available evidence gathered in nonhuman primates about gestures and their organization. The presence of asymmetrical cerebral organizations in nonhuman primates along with functional asymmetries in the perception and in the production of vocalizations and in intentional referential gestural communications will then be emphasized. I will expose the nature of primates' communicatory systems and discuss their similarities and differences with human speech. Finally, I will argue that recent findings in apes and monkeys concerning neuroanatomical asymmetries in the brain, the existence of mirror neurons and of a lateralized use of hands for communication necessitate a reconsideration of the phylogenic emergence of the cerebral and behavioral prerequisites for language.

## References

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