

## Speech Motor Processing and Animal Sound Communication

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**Abstract :** Sound communication is present in most vertebrates, from fish, mainly in species that live in murky waters, to some species of reptiles, anuran amphibians, birds, and mammals, including primates. There are, in fact, relevant similarities between human language and animal sound communication, and among these similarities are the vocalizations called calls. The first specific call in human babies is crying, which has a characteristic prosodic contour and is motivated most of the time by the need for food and by affecting the puppy-caregiver interaction, with a view to communicating the necessities and food requests and guaranteeing the survival of the species. The present work aims to articulate speech processing in the motor context with aspects of the project entitled emotional states and vocalization: a comparative study of the prosodic contours of crying in human and non-human animals. First, concepts of speech motor processing and general aspects of speech evolution will be presented to relate these two approaches to animal sound communication.

**Keywords :** speech motor processing, animal communication, animal behaviour, language acquisition

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