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**EVOLUTION OF LATERALIZATION IN PRIMATES: CURRENT INSIGHTS FROM PROSIMIANS TO HUMANS**

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A central question in evolutionary biology is how and for what purposes brain functions and their expression on the behavioral level become lateralized. A prominent indication of cerebral lateralization is handedness which together with the lateralized processing of human language, has been discussed to be a unique human trait for a long time. Recent studies have challenged this point of view. In this symposium we will explore major theories on the evolution of lateralization (MacNeilage et al. 1987, Fagot & Vauclair 1991, Corballis 2002) in primates by focusing both, on hand usage, and on communicative signalling using standardized ethological protocols and/or brain imaging techniques. We will furthermore present current data on lateralization on a broad range of primates covering all major taxonomic groups from prosimians to humans in order to better understand the role of task complexity, sensory and motor control and phylogeny on the evolution of primate laterality.

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