Objective

"Language is our most potent cognitive and cultural tool, through which we can shape one another’s minds, share information and build knowledge collectively across generations. This is crucial during development: infants build knowledge to the extent that adults offer the appropriate scaffold, i.e. if the teaching material is tuned to the infant’s current understanding. At present, it is hotly debated whether we can open communication and share knowledge with infants only by means of spoken words, or whether gestures offer equal scaffolding. The growing "baby sign" movement may offer this possibility. Baby sign is a system of symbolic gestures, i.e. signs that have meaning and symbolize concepts. As a result, symbolic gestures are
a potential means for exchanging meanings in the preverbal infant/adult dyad. However, this exciting scenario cannot be proved by the existing research, which shows contrasting views that only rely on the indirect interpretation of infant behaviour. Using EEG, the present project will be the first to directly decode the baby brain and establish a direct quantitative comparison with the adult brain to verify whether the two share a common multimodal conceptual space, essential for exchanging meanings before and beyond spoken language. At the scientific level, the project will provide an unprecedented understanding of the origins of human language and symbolic cognition, which are essential hallmarks of our species. By testing whether these core abilities develop not only via the verbal channel (spoken words) but also via the visual channel (symbolic gestures), it may support a paradigm shift in favor of human language as inherently multimodal. At the societal level, the project will test key assumptions of baby signing, whose widespread interest is not equally paralleled by compelling scientific evidence; thus, it will directly impact intervention models that aim to support human language and symbolic cognition during (a)typical development."

Fields of science

humanities › languages and literature › general language studies

Keywords

- Multisensory processing
- language
- communication
- gestures
- semantics
- preverbal infants
- EEG

Programme(s)

HORIZON.1.2 - Marie Skłodowska-Curie Actions (MSCA)  

Topic(s)

HORIZON-MSCA-2022-PF-01-01 - MSCA Postdoctoral Fellowships 2022

Call for proposal

HORIZON-MSCA-2022-PF-01
Funding Scheme

HORIZON-TMA-MSCA-PF-EF - HORIZON TMA MSCA Postdoctoral Fellowships - European Fellowships

Coordinator

UNIVERSITA DEGLI STUDI DI TRENTO

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Address
Via calepina 14
38122 Trento
Italy

Region
Nord-Est > Provincia Autonoma di Trento > Trento

Links
Contact the organisation Website Participation in EU R&I programmes HORIZON collaboration network

Other funding
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