### Title
The Social & Action Space Around Us

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### Context
The space around the body is of fundamental importance to interact with objects and humans in our environment. In everyday life, we expand or shrink the space immediately surrounding our body when interacting with people or objects that are relevant for us. This body space can be seen as the physical area where social factors (e.g., individual and cultural differences, age etc.) or action towards objects (e.g., reaching or avoiding) are closely intertwined (Brozzoli et al., 2014; Teneggi et al., 2013; Heed et al., 2010; Lloyd, 2009). Studies in neurocognitive and social psychology fields suggest a close relationship between basic sensorimotor-spatial processing and social processing (Maister et al., 2015; Dijkerman & Farnè, 2015).

### Abstract/Objectives
The project aims at exploring the link between the representation of the space around the body (peripersonal space, PPS) and the social space. Social psychology defines the space close to our body as an emotionally tinged zone that people feel like “their private space” and cannot be intruded by others without causing discomfort (Hall 1966). The distance individuals maintain between themselves and others can be defined “interpersonal space” (IPS). People tend to react to spatial violations by extending distance...
from intruders when feeling in hostile and uncomfortable situations and, conversely, by reducing distance when feeling in friendly and comfortable situations (Kennedy et al., 2009).

Objectives: to explore the relationship between action & social space.
Methodology: behavioural/EEG/TMS/fMRI studies based on fully immersive, multisensory virtual reality (VR) to control for the social presence and the effect of others (represented by animated avatars) on one's PPS and IPS. VR has the advantage of ensuring a complete control over the experimental variables, while maintaining a good level of realism and ecological validity.

Bibliography


Location

Equipe ImpAct
16 avenue Doyen Lepine
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Duration

3 months

Language (French/English/Both)

Both