ABSTRACT (ID: 649071)

Is it possible to fully experience virtual reality (*VR*) without the involvement of sight? Can virtual training enhance performance in the physical world? And finally - does VR extend the capacities of our bodies, or rather does it impose new boundaries between what is real and what is simulated?

The research project summarized here aims to explore how blind individuals experience the phenomenon of presence in VR. The key question is: are sound and vibration alone sufficient to "feel" presence in a space that does not physically exist?

In the study, blind participants will immerse themselves in a VR environment designed without focus on any visual elements, where they will perform spatial tasks. This environment will rely entirely on auditory and haptic (tactile) signals. In the next stage, participants will perform the same task in real-world settings. After the experiment, in-depth interviews will be conducted, and a specially adapted presence questionnaire will be used. Data analysis will involve comparative and qualitative methods (such as Interpretative Phenomenological Analysis, *IPA*).

The goal is not only to assess whether short training in such a virtual environment can influence participants' behavior in physical space, but above all, to capture the subjective sense of presence. The project is situated within a broader philosophical reflection on embodiment, consciousness, and virtuality - asking whether the feeling of "virtual embodiment" can alter how we perceive ourselves and our actions.

This project addresses a significant gap in both philosophical and cognitive science literature which remains heavily dominated by an ocularcentric approach (focused on sight as predominant sense). In these fields, blind individuals are still rarely the subjects of research on immersive technologies, despite the fact that VR has the potential to open up new educational, therapeutic, and social opportunities for them. It also appears that current research and design approaches in the VR field place too much emphasis on so-called objective, third-person metrics, neglecting the rich world of subjective, individual experience - a domain that, while not easily measurable, is crucial to understanding the phenomena such as presence.

This undertaking seeks to deepen knowledge about how blind individuals experience virtual reality - not only from a cognitive perspective but also from a philosophical one. At the core of the investigation lie questions about a sense of presence in a simulated world that does not physically exist. Analyzing experience in VR allows us to rethink and revisit classical questions of the philosophy of mind concerning the relationship between body and consciousness, reality and simulation, the actual and the possible.

The expected outcome of the project is to enrich contemporary philosophical discourse. However, it also aims to fill specific research gaps - particularly in terms of inclusivity in VR studies - and to offer recommendations for designing virtual environments for blind users, as well as adapting research tools to their perceptual specificity. The project's results may have applications in various domains - from the design of accessible VR environments to philosophical inquiry into the future of embodiment and presence in the digital age.