



Influence of Familiarization With Immersive Virtual Reality on Presence Over Time: A Pilot Study

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INTRODUCTION

- IVR is used in a variety of applications from psychological treatments to learning and pain management (Carl et al., 2018; Makransky and Petersen, 2021; Brown et al., 2022)
- Across several domains, IVR appears to be a promising emerging tool to support the health, wellbeing, and quality of life of a variety of healthy and non-healthy populations ((Barreda-Angeles & Hartmann, 2022; Brown et al., 2022)
- Presence is posited to be a fundamental mechanism through which IVR exerts its effects, affecting enjoyment, attitudes, behavior, treatment responses, and learning outcomes (Yang and Zhang, 2022; Weech et al., 2019; Barreda-Angeles and Hartmann, 2022; Makransky and Petersen, 2021)
- Factors of presence have been investigated; however, no longitudinal studies of presence have been done

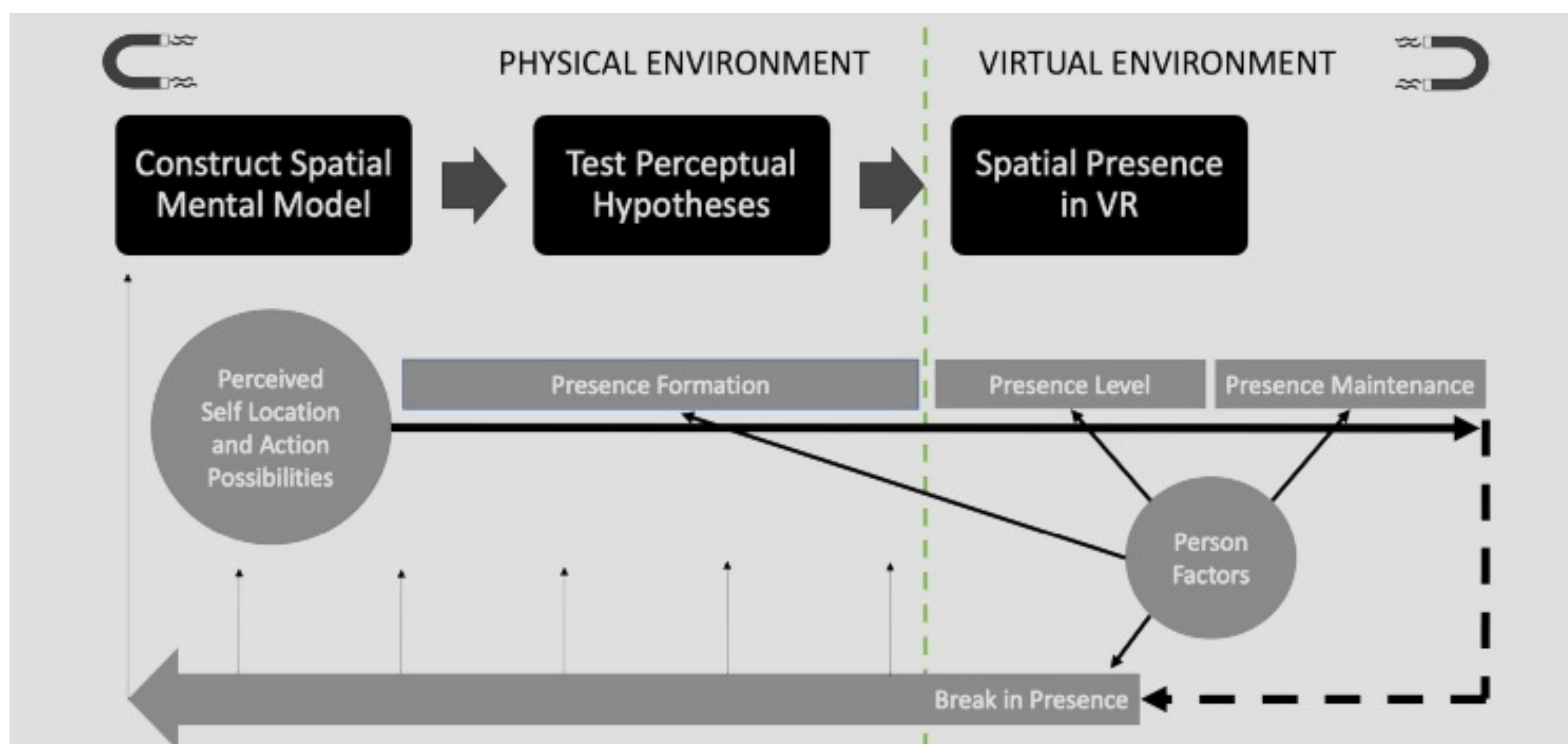
KEY TERMS

- **Immersive Virtual Reality (IVR):** User wear displays that fully immerse several of the senses in computer generated stimuli. The stereoscopic head-mounted displays are a distinctive future of the system (Biocca & Levy, 1995, p. 59)
- **Presence:** Sense of being there (Weech et al., 2019; Gibbs et al., 2022)



A custom IVR visual search task created by Andrew Dilanchian

THEORY



Magnet model of presence (Mitzner et al., 2021)

METHODS

- Cognitively healthy adults aged 65 and older will engage in leisure-based IVR experiences
- 5 to 10 sessions, each lasting 30 minutes
- Measure how presence may change over repeated use of IVR technology
- Measure how the degree of mood change may be affected by familiarization through self-report questionnaires

FUTURE

- Do age differences affect presence?
- How much change is necessary to stop familiarization within the same environment?

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References

