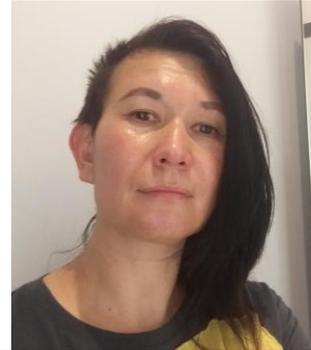## SPATIAL UPDATING OF TARGET LOCATIONS IN VIRTUAL REALITY

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Spatial updating in virtual environments is usually impaired by a lack of cues to self-motion. We report an experiment studying two types of support for spatial updating to preserve spatial orientation in synthetic environments. We varied the availability of a wall close to a target as a landmark for reproducing the target's location and we varied the availability of additional visual stimulation during self-motion intended for strengthening the impression of optic flow. Participants wore a head-mounted display standing upright and performed a pointing task after passive forward translation in a virtual scene. Before translation, two target objects were presented, some of them close to a lateral wall. They disappeared and the location of one of the target objects had to be indicated by pointing after translation. In a subset of trials, a stripe pattern above the translation path was presented during translation to increase the impression of optic flow. Pointing error on the forward axis was reduced by the lateral wall as spatial reference for close target locations, the stripe pattern did not improve performance. In future experiments, real self-motion and further navigation techniques, different multimodal cues, different tasks, and different kinds of virtual environments will be studied.