Supplementary Material for

Substitutional Reality System: A Novel Experimental Platform for Experiencing Alternative Reality

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Movie S1

Demonstration movie of the SR system. The upper left panel shows the image stream presented on the HMD screen. This is the subjective view watched by the participant. Live scenes are bordered with orange and recorded scenes with green. Neither the border nor the “live” caption was visible to the participant. The upper right panel shows an objective view of the participant’s actual environment. The lower panel indicates a conversation between an experimenter (captioned in white) and participant (captioned in blue).

The movie began with a live scene but switched to a recorded scene at 00:34 (Normal Question scene). The participant did not notice the switch. During the Normal Question scene the participant carried on a natural conversation without doubting the reality of the situation, although in actuality, the experimenter was not in front of him. At 1:32, the Doppelgänger scene began. In this condition, the participant did not initially notice the substitution, but became aware of it at 1:40 when he saw his own image (Doppelgänger). After the details of the SR system were explained, the Fake Live scene began at 2:07. He could not detect the scene is a recorded one.

After the experience of these scenes, some participants were confused about which scenes were real (see episode after 2:45). They were less confident in discriminating whether they were experiencing a recording or actual reality, even when they were genuinely interacting with the experimenter.