Action at a Distance: Altered states through virtual gestures and audio-visuals

Leslie Deere
Glasgow School of Art
167 Renfrew St, Glasgow G3 6RQ, UK
L.Deere@gsa.ac.uk

1. INTRODUCTION

Array Infinitive is a project that examines the role of audio-visuals in VR practice. This studio-led work focuses on amplified audio and VR visuals generated, processed and 'played' via gesture to a locally networked audience. For this project I am researcher, lead artist, composer and performer. I use hand gestures and bodily movements to create sounds and VR particle trails, which are broadcast to audience VR headsets in real-time.

This research looks at the exploration of presence, embodiment, corporeality and spatiality of performance in the writing of Erika Fisher-Lichte. During the ‘enlivening’ of a room into a performance space, live action widens potentials in perception and expands the relationship between performer and audience (Fisher-Lichte p.107). Through this research there is an intent to ‘activate’ dual spatial planes, both of the virtual and real-world encounter; to create a group experience and to explore affect and altered states of consciousness.

Reference is taken from the Virtual Reality and immersive performance assertions of Shi Ke’s Embodiment and Disembodiment in Live Art, which approaches VR as a transcendent format capable of maintaining autonomy, while quoting Donna Haraway with ‘the boundary between science fiction and social reality is an optical illusion’ (1991, p.149) (Ke 2020, p.193). Jonathan Weinel’s Altered States of Consciousness in Electronic Music and Audio-Visual Media is a touchstone for this work. This includes ASC simulations and the potentials for therapeutic purposes and as possible useful tools that promote awareness of these states within society (Weinel 2018, p.165). In addition, focus has been placed on the affect theory research of Gregory J. Seigworth and Melissa Gregg’s ‘mattering maps’, which include attention, moods or orientation (Grossberg 2010, p.310).

This paper focuses on qualitative data obtained during the official controlled pilot and public beta exhibition of Array Infinitive, which took place at the Centre for Contemporary Art in Glasgow (July 2021). For the pilot I used self-reporting feedback questionnaires as well as the 11D-ASC and MODTAS to measure ASC.

2. PILOT TESTS

Key pilot tests occurred in July 2021 at the Intermedia Lab of the Centre for Contemporary Art, Glasgow. An assistant and I saw a total of twenty-five participants over the four-day period. Participants were sat in chairs, of which there were four facing each other, in a diamond shape. The audio-visual VR experience was conducted, lasting around fifteen minutes. Afterwards participants filled out three forms, which included a text-based feedback form, the MODTAS questionnaire and the 11D-ASC questionnaire. The MODTAS (Modified Tellegen Absorption Scale) measures levels of sensorial absorption. The 11D-ASC scale measures Altered States of Consciousness and includes marking a scale between ‘no, not more than usual ‘and ‘yes, very much more than usual’. Dr David Luke (University of Greenwich) advised on the ASC measurement. The written feedback form aimed to investigate participants reactions to the VR work, participant relationship to the group, to the sound, and to the performer.

The ages of pilot test participants ranged from nineteen to eighty and included mixed gender male, female, non-binary and neurodivergent identifying persons. After sessions, participants verbally shared further information, thoughts and feelings. This is how I am aware of participants’ specialised
identification, as I had not asked about this on the participant information forms.

Key aims of the pilot tests were to measure participant response to the VR experience, and discover if the work is capable of generating an altered state experience. In addition, data was collected around perception and experience through the technology, evaluation of the group dynamic and ascertaining the level of awareness between human and technical involvement.

![Image](image.png)

**Figure 1:** Pilot Tests, July 2021, Intermedia Lab, CCA Glasgow.

### 3. EVALUATION

The key areas of enquiry focus on awareness of human involvement during the VR experience, level of awareness of group activity, and achievement of an ASC encounter.

This controlled pilot test showed that participants are generally not conscious of a human performer controlling the VR experience. 68% of people were not aware a human was playing the audio-visual content. There is some indication that audience profile has an impact on certain aspects of interpretation, such as participants who had a greater awareness of technology were more likely to imagine or assume a person was controlling or playing the content being relayed to them in real-time. 72% of participants said they were not aware of being part of a group during the experience. Visual markers placed in the virtual environment, which were meant to echo the audience positions in the physical space, were not obvious to most participants. Generally, feedback included being ‘lost in the experience’ so that there was ‘no feeling of others’. There was a high majority of 80% who enjoyed the mixed reality experience of having audio amplified into the room, whilst being visually in a VR environment. The audio element of this experience proved to be important. Broadly speaking, the feedback suggests the work does relax participants and creates a safe space to enter into such a state. Verbal feedback was received on comfortability and the work reminding participants of psychedelic experiences and exploring that realm in a ‘safe space’.

The level of immersion that occurs with this project, is such that there is a threshold of attention or bandwidth of noticeability. The sensory input is considerable, and has a maximum number of aspects that can be absorbed at one time. Hence the lack of notice of fellow participants or who / what was controlling the experience. Those details were not considered by the participants while being immersed in the work visually and sonically. Several of the questionnaires came back with ‘slightly anxious’ experiences in the first few scenes, which changed over time, where there appears to be a ‘settling into’ the experience and a more relaxed state with the continuing scenes including reactions such as: ‘Really happy, at peace’, ‘Euphoric’, ‘A feeling of awe’, and ‘Exhilarating like all things were possible’.

This sensory aspect also led to participants entering into a genuine altered state experience. Much higher levels of ‘simple imagery’ and ‘bliss state’ were achieved, as can be seen in contrasting non-drug ASC experiments graph. The indicating factors of immersion and audio-visual affect contributed to audience having an altered state experience, even if it was singular or subjective rather than immediately noticeable as part of a group.

### 4. REFERENCES


Action at a Distance: Altered states through virtual gestures and audio-visuals
Leslie Deere

Figure 2: Still from Mind the Film videography of Array Infinitive at Core Studios London, 2021.

Figure 3: ASC data results from Pilot at CCA Glasgow.