Cardiff Visual Vertigo Study – videos to assist clinicians

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Summary

The videos are split between two folders – 'Real Life Videos' and 'Virtual Reality Corridors'. They are designed to show environments that are likely to trigger visual vertigo symptoms and environments that are less likely to trigger visual vertigo symptoms. They could be shown to patients to help identify triggers for their symptoms. In the future, we hope that the videos can be used as inspiration for new rehabilitation therapies.

We are still working to optimise the quality of the videos and the quality may look different on different displays. We would very much appreciate your feedback on the video quality and whether high quality videos would be useful in the future.

The videos should be shown full screen if possible. It is best to download the videos onto your computer and run them through a media player.

Please email us to let us know if you are planning on using the videos (powellg7@cardiff.ac.uk).

Real life videos

These videos show a number of real life environments that may or may not trigger symptoms of visual vertigo. Each video contains several different clips of an environment viewed in different ways. These include: no movement (NM), head rotation (HR), smooth translation (ST) through the environment (camera on wheels), bumpy translation (BT, camera is attached to the head while walking), and riding a bike (RB). These different clips can be used to explore how viewing the environment in different ways influences symptoms of visual vertigo. The two letter codes in brackets above can be used to identify the order in which these conditions appear in each video.

In the 'real life videos' folder, there is also a sub folder called 'backwards'. This folder contains videos of the some of the same environments, but all the movements are backwards. We are interested in whether 'unnatural' backwards motion produces stronger/milder symptoms than 'natural' forward motion.

Virtual reality corridors

The videos in this folder show a smooth translation through various different virtual reality corridors. On the walls and floors of the corridors are patterns that may or may not trigger visual vertigo symptoms. One of the videos shows simulated natural environments, such as supermarkets and forests. Another video shows environments with features such as columns and motion. The last

video shows corridors which isolate basic features, such as orientation and spatial frequency. All videos contain a small red dot somewhere in the scene – this is where patients must fixate their eyes. In some of the videos this dot is moving and in some it is stationary. This can be used to see whether making eye movements (or not) influences symptoms of visual vertigo. A letter of the alphabet will appear at the bottom left hand corner during each of the corridors– this can be used as a key to identify what the corridor was showing (see list below).

Real Life corridors

A – Plain patterned wall corridor

B – Patterned carpet

C – Plain patterned floor corridor

D – Rocks

E – Forrest

F – Supermarket

Semi-real life corridors

A – Plain patterned wall corridor

B – Even columns on walls

C – Uneven columns on walls left

D – Uneven columns on walls right

E – Uneven motion on walls forwards

F – Uneven motion on walls backwards

Simple Corridors

A – Horizontal, low spatial frequency, central fixation

B – Vertical, high spatial frequency, moving fixation

C – Vertical, low spatial frequency, central fixation

D – Vertical, low spatial frequency, offset fixation

E – Horizontal, low spatial frequency, offset fixation

F – Horizontal, high spatial frequency, offset fixation

G – Horizontal, high spatial frequency, moving fixation

H – Horizontal, low spatial frequency, moving fixation

I – Horizontal, high spatial frequency, central fixation

J – Vertical, low spatial frequency, moving fixation

K – Vertical, high spatial frequency, offset fixation

L – Vertical, high spatial frequency, central fixation