Experimental protocol – calendar calculation study

**Purpose**

To investigate whether people with sequence-space synaesthesia show superior performance when learning the skill of calendar calculation. People with sequence-space synaesthesia experience units of time (e.g., days, months, years) as a pattern in space, either within the mind's eye or as a 3d projection outside of the body. Calendar calculation is the ability to calculate the day of the week for a given date - e.g. September 18th 1990 was a Tuesday. Our study looked at whether the experience of sequence-space synaesthesia gives advantages when learning how to calendar calculate.

**Sample**

13 people with sequence-space synaesthesia (9 female; mean age = 32.62), and 22 controls (16 female; mean age = 33.14).

**Procedure**

Participants were recruited from existing participant databases as well as opportunity sampling. All data was collected via an online study. Participants received an email invitation containing a URL link to our study. Clicking this link displayed our information and consent forms. The study involved three weeks of training, teaching participants how to perform the skill known as calendar calculation (being able to calculate the day of the week for different dates, e.g. 18th September 1990 was a Tuesday). Before the training began, participants filled out some initial questionnaires and an arithmetic test. Following this, over the course of three sessions spread over three weeks participants were taught how to calendar calculate via a series of online tutorials. Participants were taught various calendar rules and were tested on their knowledge at the end of each session. At the end of the three weeks of training, a final calendar calculation test assessed participants overall knowledge. Finally, a strategy questionnaire asked participants about strategies used while answering our calendar calculation questions.