

Description

Synaesthesia is a rare perceptual condition in which the stimulation of one sensory or cognitive pathway leads to an automatic, involuntary experience in a second sensory or cognitive pathway. While rare, synaesthesia occurs more frequently in populations of artists, musicians, and people involved in the creative industries. This project aims to model the phenomenological aspects of sound-to-color forms of synaesthesia.

The existing tests focus mainly on the grapheme colour form of Synaesthesia, which establish the relationship between colours and shapes or letters, with very few or relatively basic tests that focus sound to color or shape.

The client is seeking the support of a master's student to build an online tool that performs two-dimensional color consistency tests currently used to diagnose synaesthesia, among others. Specifically, the client is interested in the translation of sound to color/shapes, as studying this form of synaesthesia can help gain insight into the unconscious reality of the brain. The tool will help provide more diagnoses of synaesthesia online, instead of costly fMRI machines, and it can be a way for people to express their synaesthesia.

The project will involve developing an infrastructure for the online tool that will enable users to take tests that measure their responses to different sounds using colors and shapes. The tool could potentially use AI generative image technology to translate users' descriptions of the shapes and colors they see in response to different sounds into images. The client is interested in creating a platform that is easy to use, simple to understand, and open access, so that anyone can access it.

To determine the domain of sounds and colors/shapes used in the tests, the project team will play similar notes at different times during the test and see if the user responds similarly for the note to a past answer. If the responses align and are consistent, this will help determine the domain of sounds and colors/shapes used in the tests. The project team will also need to determine the number of questions, time limit restrictions on sound played, and other parameters to ensure the tests are effective.

The online tool will be developed with the goal of making it accessible to a wide range of users. The client has agreed to use Slack as the primary communication channel, and the project team will work together with the client to ensure the project is achievable and realistic. The project will start with small, achievable tasks, and will gradually build in complexity and new features as the infrastructure is developed.

In conclusion, this project aims to create an online tool that models the phenomenological aspects of sound-to-color forms of synaesthesia. By developing this tool, the project team hopes to gain new insights into the unconscious reality of the brain, and to provide an accessible and cost-effective way for people to express their synaesthesia.