

# Research Methods II

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# Research Question

How can the circular shape be perceived through audio/visual sensory channels to enhance the viewer's sensorial communication towards it?

## Sub-Question(s)

How do we perceive through our sensory channels? How do we communicate with the circular shape through sensory channels?

What contributes to perception, which part is related to our senses?  
How significant is the role of emotion in creating this perception? (Subjectivity?)

**What is known**

- Perception is defined by information retained through sensory channels.
- The circle is a shape that we are naturally inclined towards.
- There are many evolutionary examples of why we are attracted to circles.

**What is not known**

- What is the connection that can be drawn to our sensory perception that can explain the natural inclination towards circles.
- How can we use this information to create a better interactive experience of viewing the circle?

# Purpose Statement

Normally human beings are accustomed to responding to image and alphabet as channels of communication, however sensory channels perceive information differently.\*

The purpose of this study is to investigate how our senses impact the way we communicate with the *circle* as a shape that we have an innate tendency to gravitate towards.

# Significance of the Study

The significance of the study is that sensory channels of communication are underexplored as a cognitive process that build up the perception of our surroundings.

For my practice, this is important because there is a lack of understanding for how this information can be used to create an interactive experience that impacts our sensory systems, especially through the circular shape which is a form that we are attracted to on an evolutionary level.\*

# Literature Review

## Sources:

G. Neil Martin, Neil R. Carlson and William Buskist. “Memory” in Psychology. 4th ed (Harlow: Pearson Education Limited, 2010). 292-293

Cretien van Campen. “The hippocampus of Proust-The making of sense memories in the brain” in The Proust Effect: The Senses as Doorways to Lost Memories. (Oxford: Oxford University Press, 2014). 47-57

Ian Heywood. Introduction to Sensory Arts and Design. edited by Ian Heywood. (London: Routledge, 2017). 1-4,10-14

Marshall McLuhan. The Medium is the Massage. (New York;London;Toronto: Bantam Books, 1967)

Casey O'Callaghan. “Non-Visual Perception” in The Oxford Handbook of the Philosophy of Consciousness edited by Uriah Kriegel. (Oxford: Oxford University Press, 2020). 66-81

# Theoretical Frameworks

- ⊗ **Sensory Communication**
- ⊗ **Perception/emotion**
- ⊗ **The circle in art/design**

# Main Ideas

- ⊗ It's difficult to distinguish the act of perception from sensory 'memory' which is part of the brain that stores information that is perceived through our senses at a single moment.
- ⊗ The Proust effect does not happen in an instant but gradually enters an individual's consciousness. They often begin with a mood or an undefined feeling only to later realise where it comes from and are able to give a specific context of sensory impressions to place it. Creating memories through sensory channels is similar to the creative process as we often have fill in the elements ourselves.
- ⊗ Senses are a direct source of stimulation. The importance of a specific experience varies for individuals and groups based on what the producer is trying to achieve, what aspects of sensorium are important to them and the level of attention employed.
- ⊗ Perception occurs consciously and unconsciously. Unconsciously it may psychologically impact thought, emotion or action but is often unnoticed by the subject. When consciously using our senses, the subject goes through perceptual, recognizable episodes.
- ⊗ Each sensory modality has specific features that it reveals because of perceptual experiences belonging to that modality. For example - Colors for vision, pitches and timbres for audition, pressure and warmth for touch, scents for olfaction, and tastes for gustation. Spatial awareness and structure shows how we use each of our senses differently too.

# Methodology

**Primary Sources of Data:**  
Interview + Observation

*Qualitative and Interpretive*

# Plan & Design

## Interview:

- ⊗ At least MA/MFA graduate
- ⊗ Somebody trained with either studying of form/geometry, or someone with an understanding of sensory channels of communication
- ⊗ Semi-structured/Semi-formal
- ⊗ Online voice/video call - Zoom/Google Meet

## Observation:

- ⊗ Observation of people who will interact with the work I create based on a sensorial experience and the circular shape with the incorporation of audio+visual along with other sensory modes.
- ⊗ Record the response of at least 5-10 participants for initial information
- ⊗ Observer as participant
- ⊗ Perhaps a contrast of two works can be created where one is just based on visual perception and the other incorporates more than one of the senses.
- ⊗ What to look for:
  - Whether their senses apart from visual and aural were stimulated.
  - What kind of experience do both works invoke
  - How do different groups of people experience them differently

# Observation

**Setting** - The viewers of the work will be observed in the physical space once they interact with my work displayed on campus, inside the studio space. It will likely be in a dark room, empty space so as to dull most of your other senses.

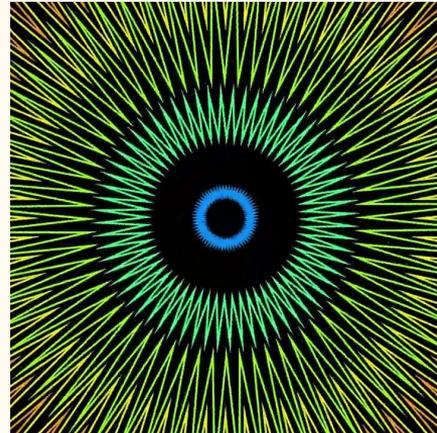
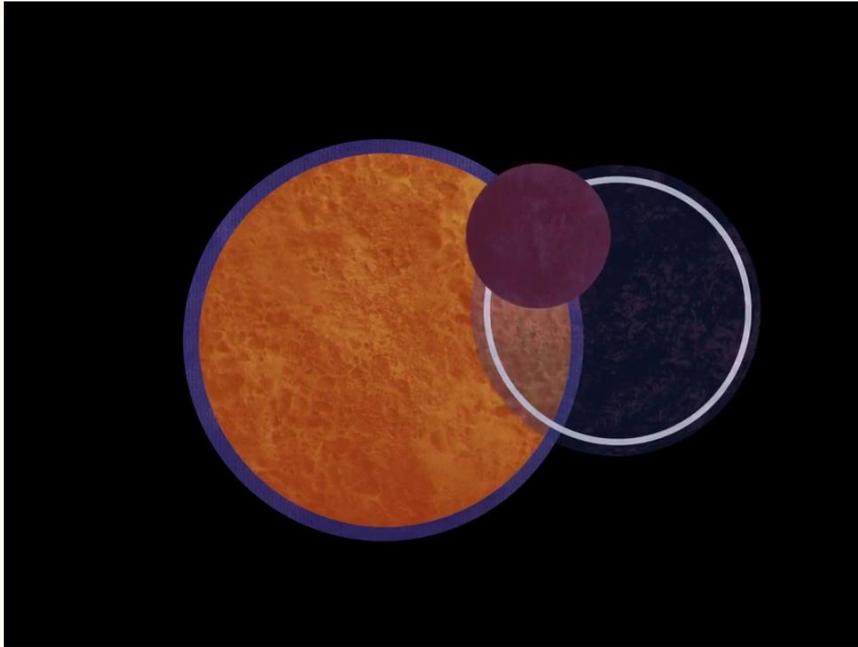
**Participants** - The participants will include a select few individuals that are familiar with the premise of the study. These participants will be fellow students as well as instructors, or jurors present. As a preliminary observation, only 5 people will be observed.

**Interactions** - The viewers will be interacting with the work that will be projected with sound coming from speakers and encompass a complete audio/video experience design.

**Conversation** - They will be free to roam around and ask questions, where I will be answering all the questions. Important information will be recorded through a process of note-taking.

# The work itself

The work displayed will be similar to the videos below which are smaller versions of what the final outcome will be.



# Findings

## Possible Outcomes

*As the study is still being developed, therefore, below are a few possible expected outcomes of the study based on a few basic observations of how fellow classmates have interacted with my work*

- The circular shape mesmerises everyone, specifically in animated format.
- The illusion-based animations are intriguing because of the repetition of the shape.
- Any work that has sound associated with it, is automatically appreciated more because of the added layer. This supports the theory of all experiences being multi-sensory and therefore the more senses that are stimulated, the better the experience is.
- An interesting observation by the viewers is that there is a certain unpredictability within the shapes, even though you can see the revolving pattern. This unpredictability arrives as a result of intended contrast amongst 2-dimensional and 3-dimensional shapes created in the animation. The unpredictability is welcomed.

# Future of the Research

The next phase of this research would entail focusing on each of the senses individually to discover the way each of these impact us differently and whether one of them has a bigger impact than the other.

Simultaneously the connection to the circle needs to be developed further to gauge a better understanding of the shape in this context. This is because the circular shape has many connotations for different people as compared to my own relation to it.

So perhaps an understanding of my personal relation would be needed.

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