

The effect of parallel lines' orientation on the magnitude in the Poggendorff illusion

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Introduction

Poggendorff Illusion



Several Illusions

The Poggendorff Illusion



The possibility that the illusion is affected by the square line's orientation.
(Spehar & Gillam 2002)

The Tilt Illusion



The surround orientation affect to the center orientation.
(Lee, & Blake, 2004)

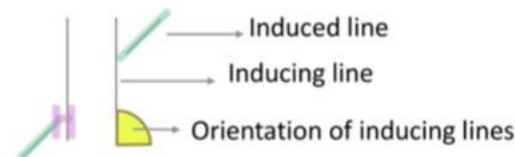
Research Question

- Is the Poggendorff illusion affected by the orientation of inducing lines?
- Do the Poggendorff illusion has similar mechanism with orientation illusion?

Methods

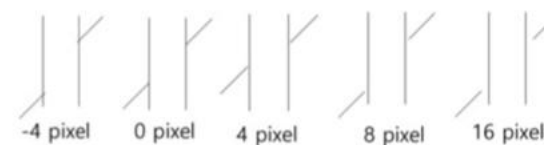
Experiment

Stimuli

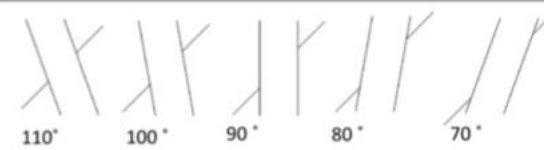


Variables

1. Gap between lines



2. Orientation of inducing lines

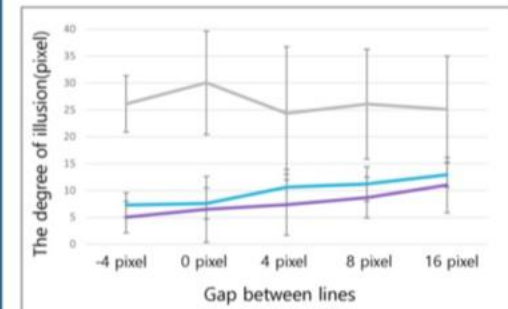


Response



Results & Discussion

Results



- The gap between lines has little effect to the Poggendorff illusion.
- When orientation of inducing lines are bigger than 90°, illusion's degree increase.

Discussion

- The possibility that the Poggendorff illusion has similar mechanism with other orientation illusion like tilt illusion or rod-and-frame effect.

Results & Discussion

Spehar, B., & Gillam, B. (2002). Modal completion in the Poggendorff illusion: support for the depth-processing theory. *Psychological Science*, 13(4), 306-312.

Lee, S.-H., & Blake, R. (2004). A fresh look at interocular grouping during binocular rivalry. *Vision Research*, 44(10), 983-991.