Week 9 Presentation: Gestalt Principles and Illusion Demonstrations

Gestalt Principles and Illusion Demonstrations

Introduction:

This topic revisits the enduring legacy of Gestalt psychology in modern vision science and explores the fascinating world of optical illusions that reveal the brain's constructive nature.

Brainstorming Questions: 1. **The Phantom Triangle:** Show the Kanizsa triangle illusion (where Pac-men shapes create a white triangle). Explain, as if you were talking to, your grandma why she sees a bright white triangle that isn't actually drawn there. Tell her her brain is a "detective" that assumes the triangle *must* be there to block the circles.

2. **The "Impossible" Fork:** Show an optical illusion like the Devil's Tuning Fork. Explain, as if you were talking to, a 5-year-old why it makes their brain feel funny. It's because the drawing breaks the 3D rules our brain normally uses to understand the world, confusing the "construction crew" in our head.

3. **Figure-Ground Flip:** Show the Face-Vase illusion. Explain, as if you were talking to, your uncle why he can switch between seeing two faces or one vase, but never both at the exact same time. It's because the brain always needs to decide what is the "main character" (figure) and what is the "background."

Recommended Readings:

- Wagemans, J., Elder, J. H., Kubovy, M., Palmer, S. E., Peterson, M. A., Singh, M., & von der Heydt, R. (2012). A century of Gestalt psychology in visual perception: I. Perceptual grouping and figure-ground organization. *Psychological Bulletin*, 138(6), 1172–1217.
- Seckel, A. (2000). *The art of optical illusions*. Octopus Books.