

Week 11 Presentation: The Construct of Color (Chapter 9)

The Construct of Color (Chapter 9)

Introduction:

Color is a psychophysical construct, not a physical property of objects. This presentation explores the Trichromatic Theory and Opponent-Process Theory to explain how we see millions of colors. It also addresses color constancy—the brain’s amazing ability to discount the illuminant—and the philosophical implications of individual differences in color perception.

Brainstorming Questions:

1. **The Flavor of Color:** specific personal experience required. Pick your favorite color. Now, try to describe “Red” to someone who has been blind since birth without using objects (like “hot” or “apple”). Use this struggle to explain to a child that color isn’t a “thing” in the world, but a “flavor” our brain acts out. It’s an ingredient we add to the recipe of vision!
2. **The Argument Over “The Dress”:** specific personal experience required. Recall a debate about whether a wall is “blue” or “grey,” or the famous “Dress” photo. Explain to your grandma that her brain acts like an “Instagram filter,” automatically changing colors based on the lighting it *thinks* is there. Tell her we all live in slightly different visual worlds!
3. **The Super-Vision Hero:** specific personal experience required. Imagine you could see colors that bees see (UV). Write a short superhero profile for a child about “Captain Chroma” who finds secret messages on flowers. Use this to explain that what we see is limited by the “crayons” (cones) in our eyes, and some animals have way bigger boxes of crayons than we do.