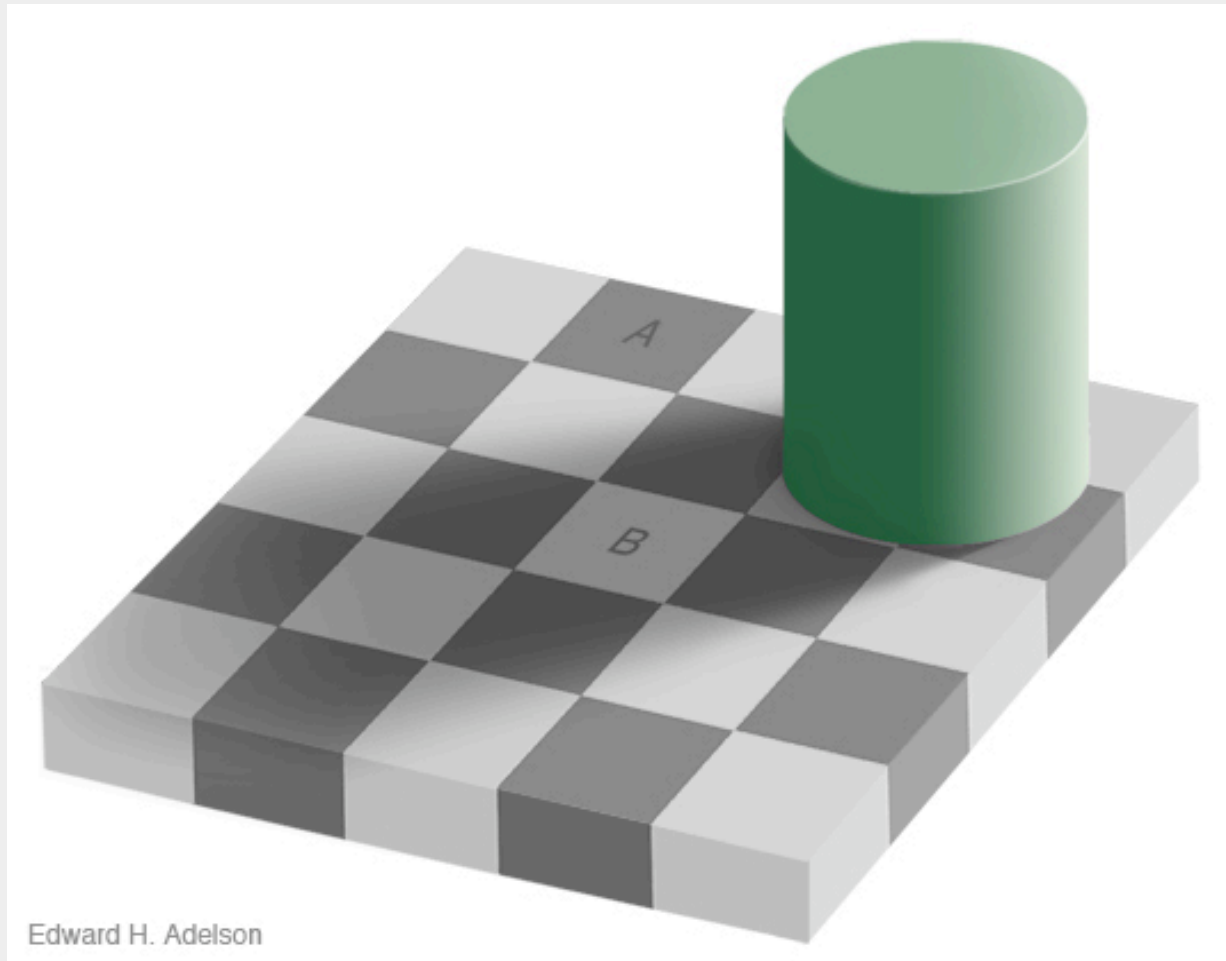


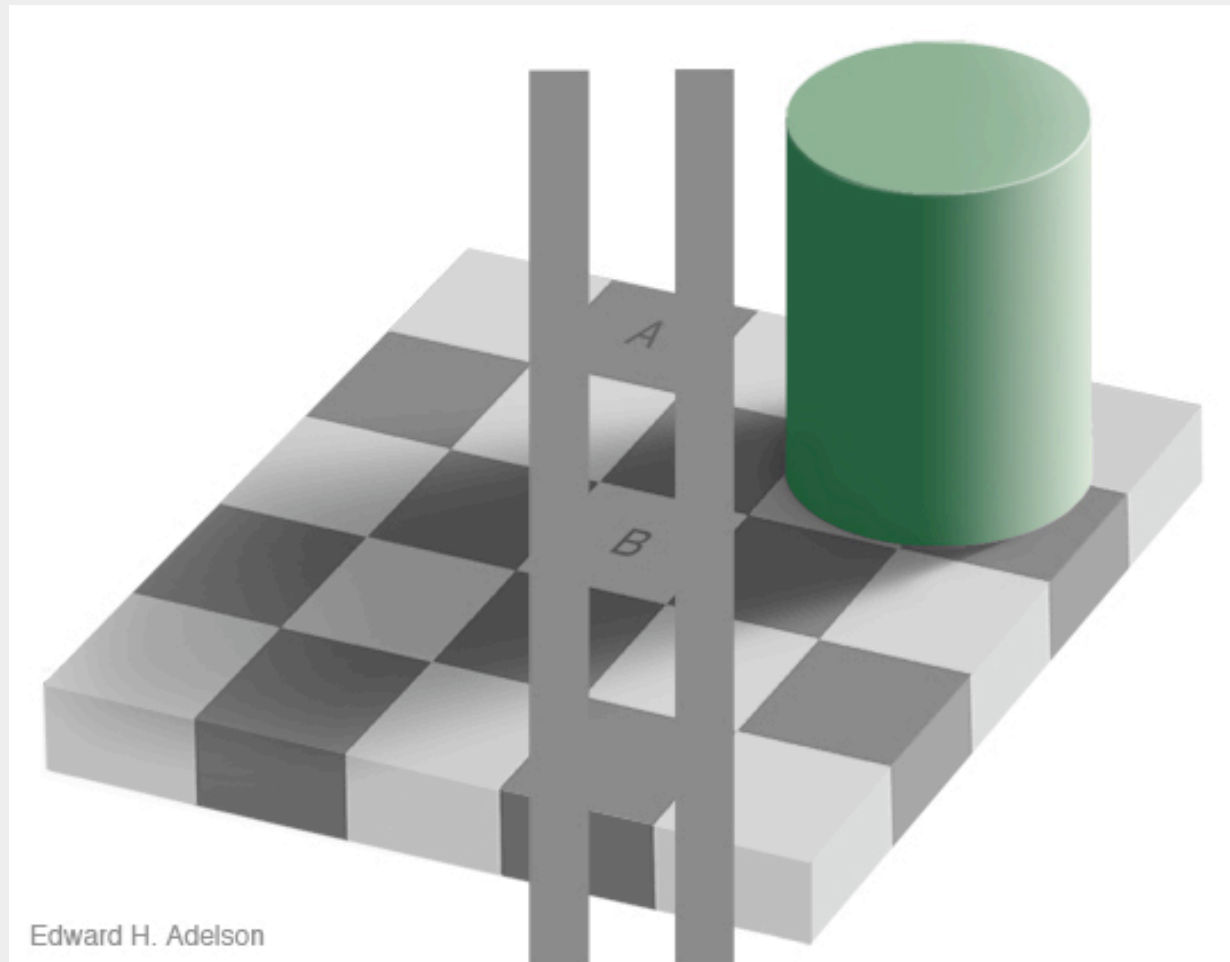
Color illusion

- The squares marked A and B are the same shade of gray



Edward H. Adelson

Color Illusion -- proof



Edward H. Adelson

What is light? What is color?

- Light is electromagnetic energy
 - a continuous range of wavelengths
 - varying intensity at each wavelength
- Color is a property of the visual system
 - Not an inherent property of light
 - Human eyes have Red, Green, Blue receptors (*cones*)
 - Each receptor responds to a range of wavelengths
 - Gives rise to “primary colors”:
 - all colors expressed as combination of red, green, blue cone stimulation
 - Lots of perceptual, psychophysical effects:
 - adaptation, inhibition, illusion
- Physically correct computation
 - requires computing interactions at all wavelengths
- Perceptually correct computation
 - Requires taking into account psychophysics
- Pretty good approximation:
 - Separate light into red, green, blue components
 - Process each component independently