

## **EXAMPLES OF THE SCIENTIFIC EXPLANATIONS OF SOME ILLUSIONS**

### **THE SPEED OF LIGHT IS NOT INSTANTANEOUS:**

Ole Roemer (Danish astronomer, 1676) applied the delays observed in the orbiting time for the moons around Jupiter, and how this changed as Jupiter's distance changed.

**SUN DOES NOT REVOLVE AROUND US:** Proposed by Copernicus (~1540), supported by Galileo and refined by Kepler (early 1600s), then confirmed with stellar parallax by Bessel (1838).

### **RAINBOWS ARE NOT MATERIAL OBJECTS:**

Theodoric Freiburg (early 1300s), first to use the scientific method. Refined by Isaac Newton (1660s).  
<http://www.atmosphere.mpg.de/enid/tj.html>

**SPECIES DO CHANGE:** Charles Darwin's work with natural selection (published 1859).

**CONTINENTS ARE NOT FIXED:** Proposed by Wegener (1915); Hess & Dietz (1960s) discovered sea floor spreading