

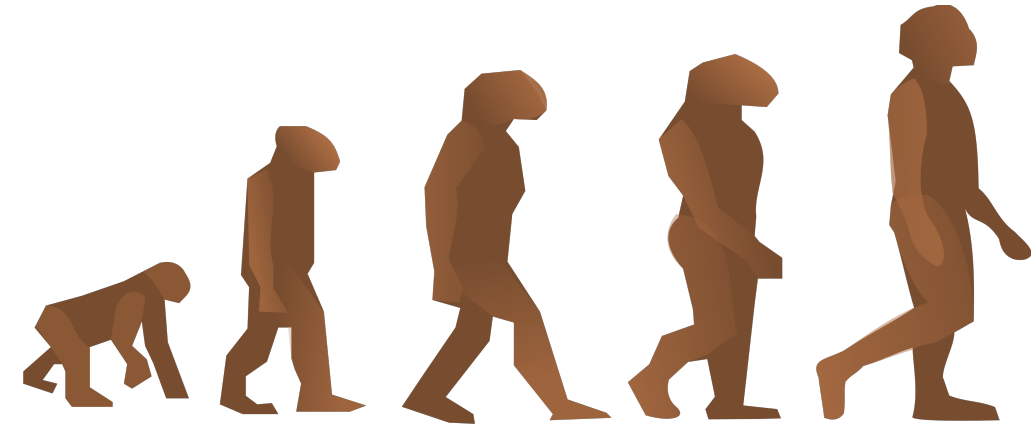


What is evolution?

Mohamed Noor



Evolution



- Change through time
 - Over generations
 - If within an individual, it's not evolution- it's “development”
- **One** cause of evolution is natural selection.
 - NOT the only one!

Classic example: Peppered moth

- 1848
 - Nearly all moths were “peppered”
- Industrial revolution pollution
 - Trees blackened, lichens died
- 1895
 - 98% of moths “black”
 - “Industrial melanism”



Classic example: Peppered moth

- Air pollution continued- Great Smog of 1952
- Clean Air acts passed in 1956 and 1968



Is evolution by natural selection “just a theory”?

- Let's imagine that you're working with a population of squirrels.

Type A: run randomly

Type B: fear asphalt

Average: 1 offspring

2 offspring

Start: A: 100

B: 100

50% B

Gen 1:

Gen 2:

Gen 3:



Why is this contentious to the general public?

- Think about these questions for a minute
 - Are there “holes” in the evidence for evolution?
 - Does it apply to humans?

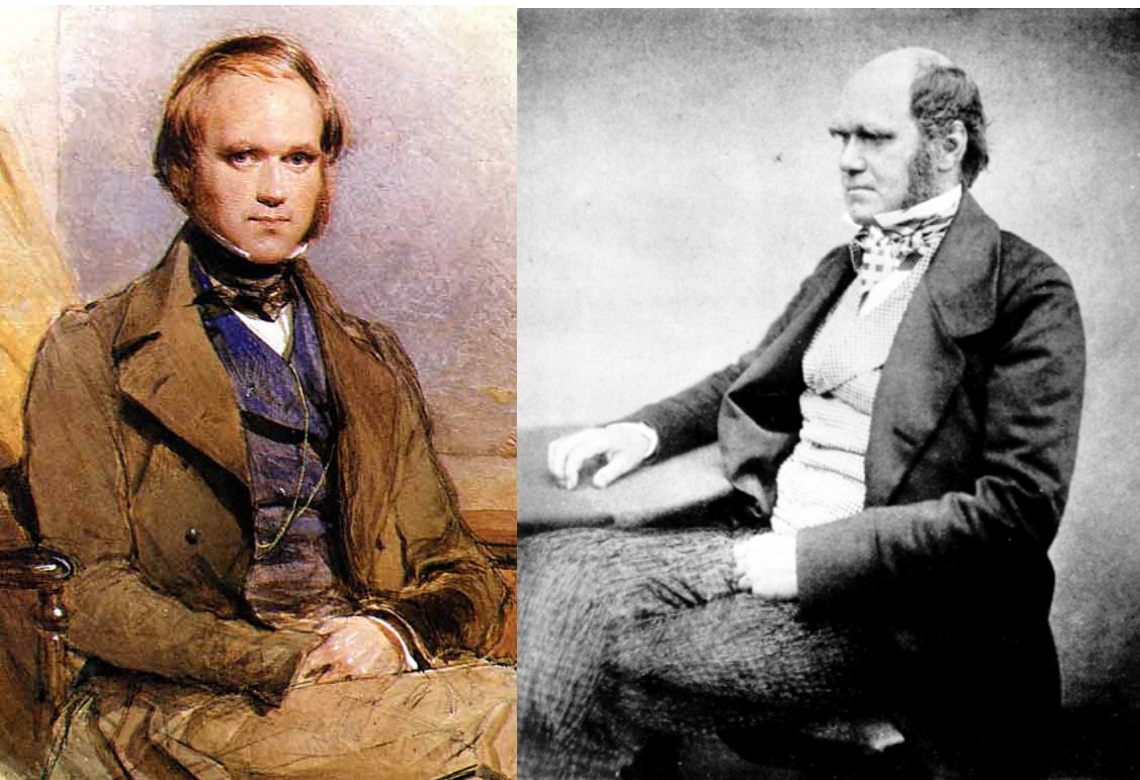


Image Credits, Unit 1-1

- Skull (from Sedlec Ossuary, Kostnice), © 2009 Gonzo Carles, CC by-SA 2.0, www.flickr.com
- Evolution of Expression!, © 2008 kabils, CC by 2.0, www.flickr.com
- Peppered moth, © 2007 Martinowsky, CC by-SA 3.0, en.wikipedia.org
- Great Smog of 1952, © 1952 N.T. Stobbs, CC by-SA 2.0, en.wikipedia.org
- Squirrel on road, © Tomo Jesenicnik, www.photoxpress.com