

Current Controversies

At the end of this lecture you should be able to:

- Identify and discuss some of the current controversial issues in human evolution

Human/Chimp/Gorilla

- What is the relationship between humans and the other great apes?
- Asian Apes diverged first
- What about African Apes and Humans?
 - Humans in separate clade?
 - Humans in same clade as chimps?

Early Hominid Bipedality

- Fully upright, fully human walking
- Intermediate, bent hip bent knee walking
- How much time arboreal and how much time terrestrial?
- Why?

How many species?

- Lumpers
 - A few australopithecines, all in same genus.
 - *H. habilis*, *H. erectus*, *H. sapiens*
- Splitters
 - Lots of australopithecines in several genera
 - *H. habilis*, *H. rudolfensis*, *H. ergaster*, *H. erectus*, *H. antecessor*, *H. heidelbergensis*, *H. neanderthalensis*, *H. sapiens*

Why do we have big brains?

- Tool use hypotheses
- Social hypotheses
- Diet/hunting hypotheses
- Deception hypotheses

When did we become human?

- Early (1,000,000 years ago)
 - Big brains, fire and tool use, language in *H. erectus*
- Middle (200,000 years ago)
 - Big brains, fire, tool use, language, culture in Neanderthals and early AMHs
- Late (45,000 years ago)
 - Cro-magnon, Upper Palaeolithic cultural explosion, cave art, bone flutes, vast range of stone tools, counting, jewelry

Origin of modern humans?

- Out of Africa
 - Speciation in Africa c. 300,000 years ago
 - Migration and displacement
- Multiregional
 - Speciation in Africa > 1,000,000 years ago
 - Migration and gradual change to modern humans

How did early homninds behave?

- Peaceful coexistence
- Ultraviolence
- Diets
- Mating systems
- Group sizes
- Migration

Others

- Divine Creation
 - Untestable by science
- Alien Intervention
 - No evidence
- Aquatic Ape
 - No direct evidence + no time
 - But: Bai observations of gorillas

Summary

- Plenty of conflict
- How do you decide?
 - Keep exploring the possibilities and ramifications of theories looking for inconsistencies and investigate the interactions between the theories and the evidence
 - Find more evidence!