



Cultural evolution

CULTURE

What is culture? The set of learned behaviors and beliefs that are passed from one generation to the next.

It includes:

- Material culture (tools, artifacts)
- Non-material culture (values, norms, customs)

CULTURAL EVOLUTION

The process by which cultural ideas, practices, and artifacts change over time through social learning and innovation.

THE EVOLUTION OF CULTURE

The transition from non-cultural to cultural behaviors is linked to the evolution of language and social learning.

TOOL CULTURES

Groups of people who share a common set of tools and techniques for making them.

LOWER PALAEOETHIC

Characterized by the use of simple stone tools (choppers, hand axes).

LOWER PALAEOETHIC

Characterized by the use of more complex stone tools (flint flakes, spearheads).

FIRE

The controlled use of fire for cooking, warmth, and protection.

MIDDLE PALAEOETHIC

Characterized by the use of sophisticated stone tools (hand axes, flint flakes).

ART AND SPIRITUALITY

The emergence of symbolic behavior, including cave art and burial practices.

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UPPER PALAEOETHIC

Characterized by the use of highly sophisticated stone tools (blade tools, microliths).

Tool Culture	Approx. Date	Key Tools
Lower Palaeolithic	~300,000 - 40,000 years ago	Choppers, hand axes
Middle Palaeolithic	~300,000 - 40,000 years ago	Hand axes, flint flakes
Upper Palaeolithic	~40,000 - 10,000 years ago	Blade tools, microliths

NEOLITHIC

The transition from hunting-gathering to agriculture and settled societies.

AGRICULTURE PRED AND CONS

Advantages: food security, population growth, specialization.

Disadvantages: disease, environmental impact, social inequality.

HUMAN EVOLUTION

Demonstrate understanding of trends in human evolution

- Biological evolution:** Body changes, genetic change
- Cultural evolution:** Learning, language, tools, clothing, fire, agriculture
- Dispersal of humans:** Where did we come from? Where do we live now? What are our genetic relationships?

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Biological evolution

PRIMATE FEATURES

- Large brain
- Forward-facing eyes
- Grasping hands
- Complex social structures

PRIMATE FAMILY TREE

WHERE HUMANS FIT IN

Humans are part of the primate family tree, sharing common ancestry with other primates.

HOMININS

The group of primates that includes modern humans and their extinct ancestors.

HUMAN VS APES

Key differences in anatomy and behavior between humans and apes.

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BIPEDALISM

The evolution of walking on two legs as a key adaptation for hominins.

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HUMAN ORIGIN

Theories about the geographic location where modern humans first emerged.

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SCIENTIFIC EVIDENCE

Archaeological and genetic evidence supporting the theory of human evolution.

Dispersal

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HUMAN EVOLUTION

"Demonstrate understanding of trends in human evolution"

3 aspects:

Biological evolution

Body changes, genetic change

Cultural evolution

Learning, language, tools, clothing,
fire, agriculture

Dispersal of hominins

Where did we come from?

When?

Where do neanderthals and "cavemen" fit?



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PRIMATE FEATURES

Adaptated for **arboreal life**:

Dexterous hands (mobile thumb) – for clutching branches

Sensitive fingertips with skin ridges with nails, not claws

Eyes front – need to be good at judging distances

Colour vision – recognise ripe fruit

Poorer sense of smell, but emphasis on fine vision

Single offspring and extended parental periods - importance of learned behaviour

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Mobile hip and shoulder joints

Unspecialised dentition – omnivorous diet

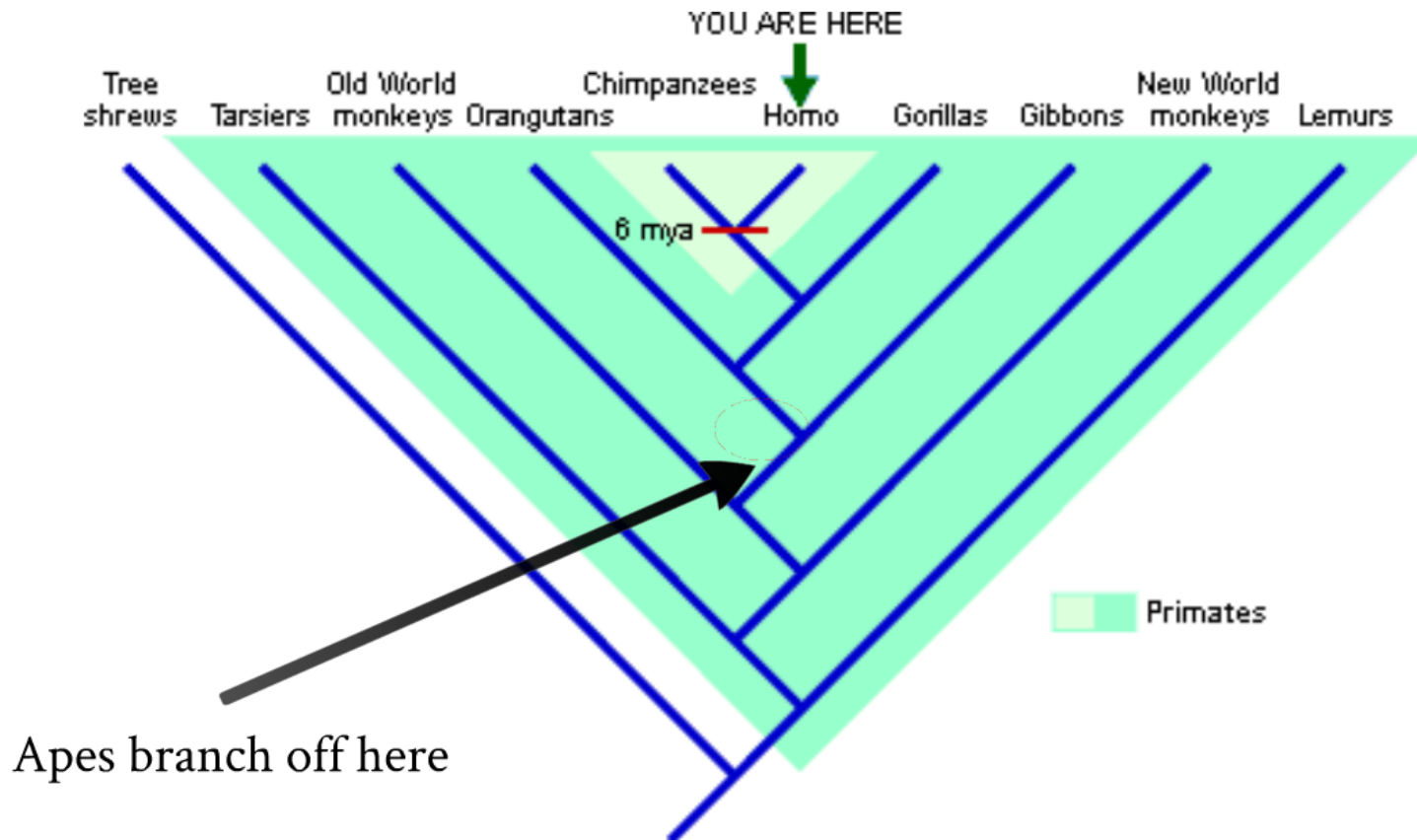
Big brain

Strong social organisation



PRIMATE FAMILY TREE

Evolutionary speaking...



WHERE HUMANS FIT IN

To find our place it's worth studying our taxonomic position...

Kingdom: Animalia

Phylum: Chordata

Class: Mammalia Fur wearin', warm blooded, young bearin', milk sucklers.

Order: Primates Adapted to arboreal life (living in the trees).

Family: Hominidae Man-like. Let's include our ancestors and great apes.

Genus: Homo Man

Species: sapiens The thinking man!

HOMININS

Hominid = humans, recent ancestors and great apes.

Hominin = only man's ancestors

Recent DNA analysis has changed views of family/subfamily classifications:



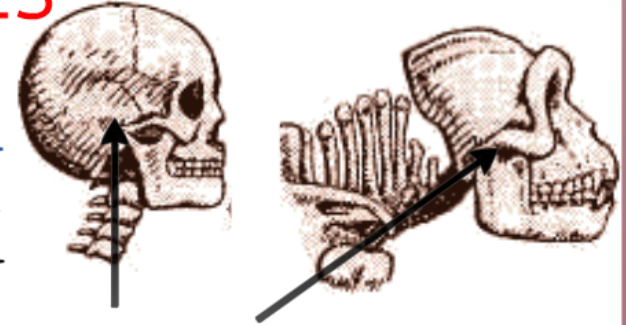
As our DNA is 98.6% the same as chimps, it has also been suggested that chimps be placed in our Genus, Homo

Fun fact: we are more like chimps than rats are to mice.

HUMAN VS APES

SKULL DIFFERENCES

Foramen Magnum vertical and
more centered – balanced



Sagittal crest absent (jaw muscle)

Muzzle

Forehead slope

Canine size

Nose width

Brow ridge



Nuchal crest absent

(neck muscle)

Cranial capacity
larger

Dentition smaller

(refined diet)

Zygomatic arch smaller

(jaw muscle passes through)

HUMAN VS APES

SKELETAL DIFFERENCES

To assist **bipedalism**:

- S-shaped spine
- Wide pelvis
- Foot arched
- Buttressed knee
- Big toe not opposable
- Valgus angle; feet under COG

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