

Figure 3

From Darwin, C. R. (1859) *On the Origin of Species ...*, facing p.117.
 Hypothetical evolutionary lineages derived from 11 ancestral species (A-L), are shown over successive time intervals (I-XIV)

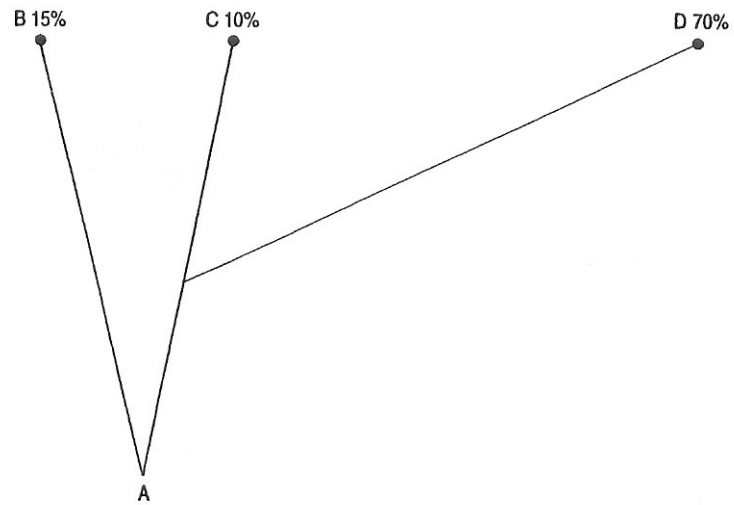


Figure 5

Relationships according to 'inferred percentual difference from ultimate ancestor (A)', following Mayr, E. (1974) Cladistic analysis or cladistic classification?, Z. Zool. Syst. Evolut.-forsch., 12, 94-128, Figure 1 (redrawn). Mayr states, 'Taxon C is more closely related to B than to D, even though it shares a more recent common ancestor with D'

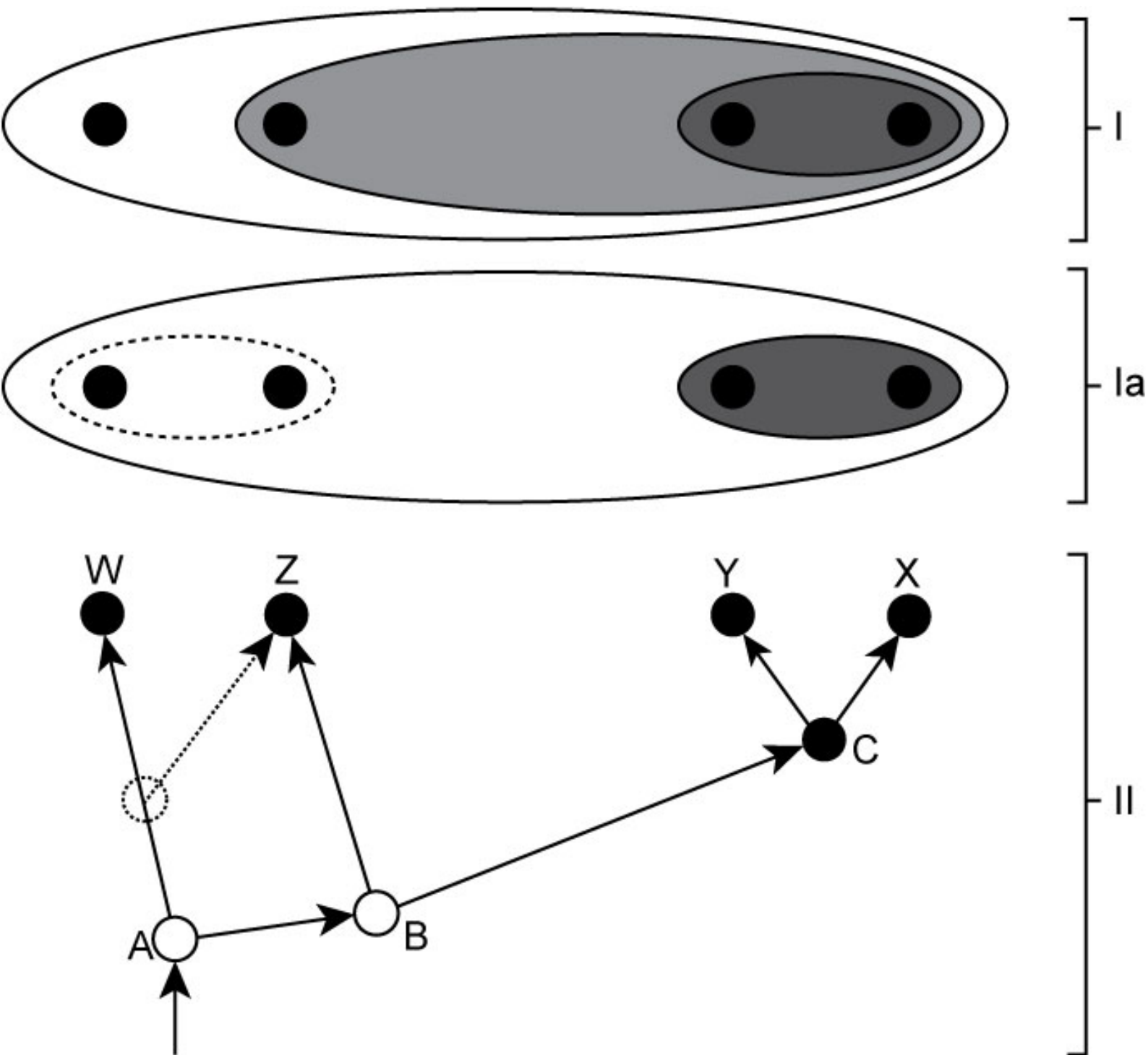


Figure 6:

Diagram to show Hinnig's conception of the relationship between phylogeny (II) and classification (I), redrawn from Hinnig, W. (1966) *Phylogenetics Systematics*, Figure 19, p. 75. I shows a cladistic classification and Ia shows the classification a pheneticist would adopt

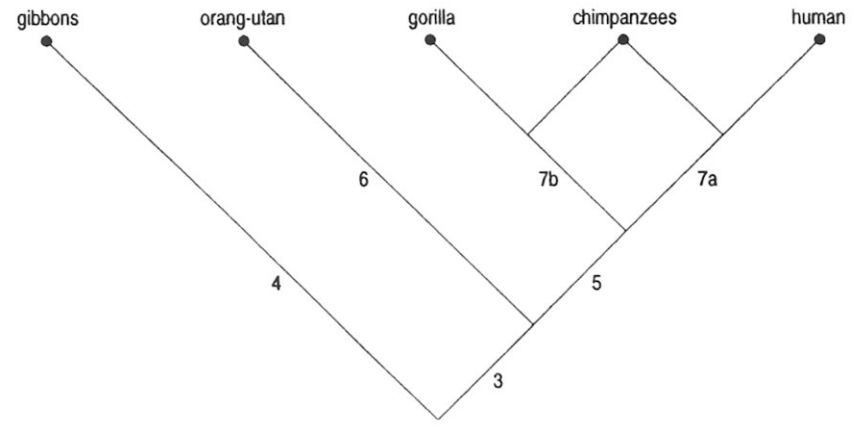


Figure 7:

Cladogram for the Hominoidea, from Andrews, P. and Martin, L. (1987) Cladistic analysis of extant and fossil hominoids, *J. Human Evol.*, 16, 101-118, Figure 3 (redrawn)

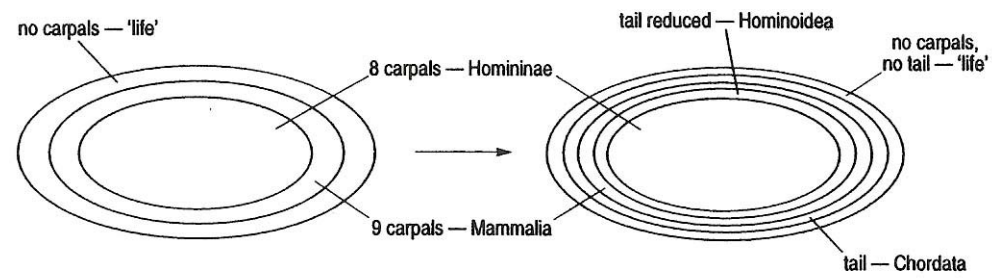


Figure 8:

	Human	Chimp	Gorilla	Orang- utan	Rhesus monkey	Spider monkey	
34	A	G	A	G	G	G	1
560	C	C	A	A	A	A	2
1287	*	*	T	T	*	—	3
1338	G	G	A	A	—	—	4
3057–60	****	****	TAAT	TAAT	TAAT	TAAT	5
3272	T	T	*	*	*	*	6
4473	C	C	T	T	T	T	7
5153	A	C	C	A	G	A	8
5156	A	G	G	A	A	A	9
5480	G	G	T	T	T	T	10
6368	C	T	C	T	T	T	11
6808	C	T	T	C	C	C	12
6971	G	G	T	T	T	—	13
7227–32	*****	*****	AATATA	AATATA	AATATA	ACTATA	14
8572	G	G	A	A	A	A	15
9231	A	A	G	G	A	A	16
9324	A	G	A	G	A	A	17
9441	G	C	G	C	C	C	18
9735	G	G	A	A	A	A	19

Figure 9:

Nucleotides at selected positions (left column) in sequences of non-coding DNA in the region of the beta haemoglobin family of genes in various higher primates. Asterisks denote gaps in the sequences of the species concerned.

Based on Williams, S. A. and Goodman, M. (1989) A statistical test that supports a human/chimpanzee clade based on non-coding sequence data, *Mol. Biol. Evol.*, 6, 325-330

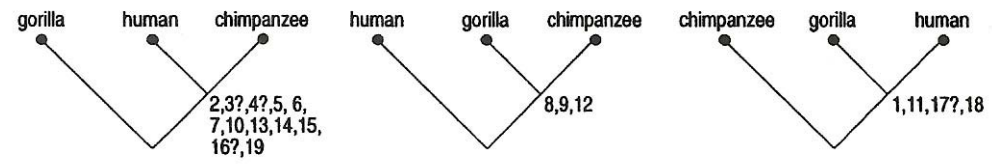


Figure 10:

Alternative cladograms for humans, chimpanzees and gorillas

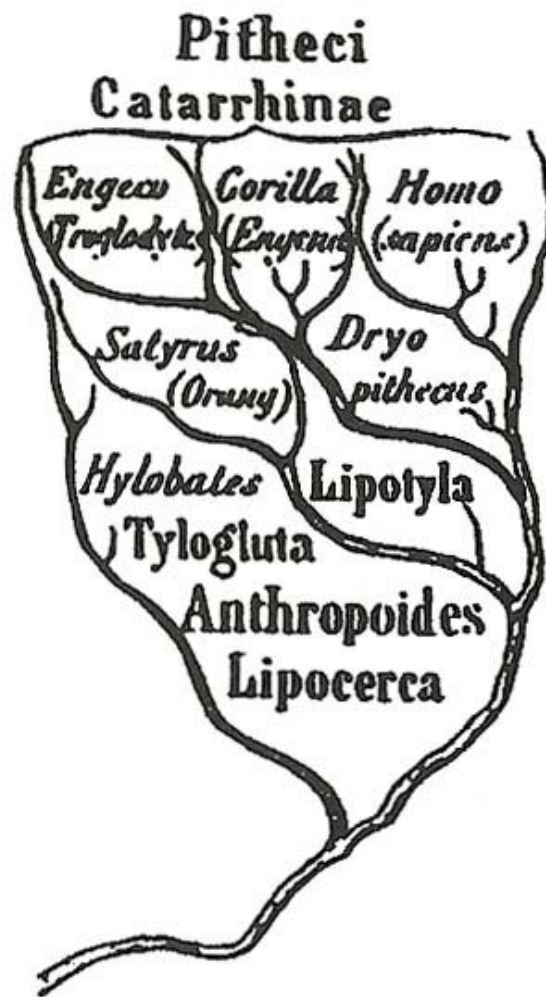


Figure 11:

Haeckel's evolutionary tree, published in 1866. Engeco is the chimpanzee, and Hylobates, the gibbons

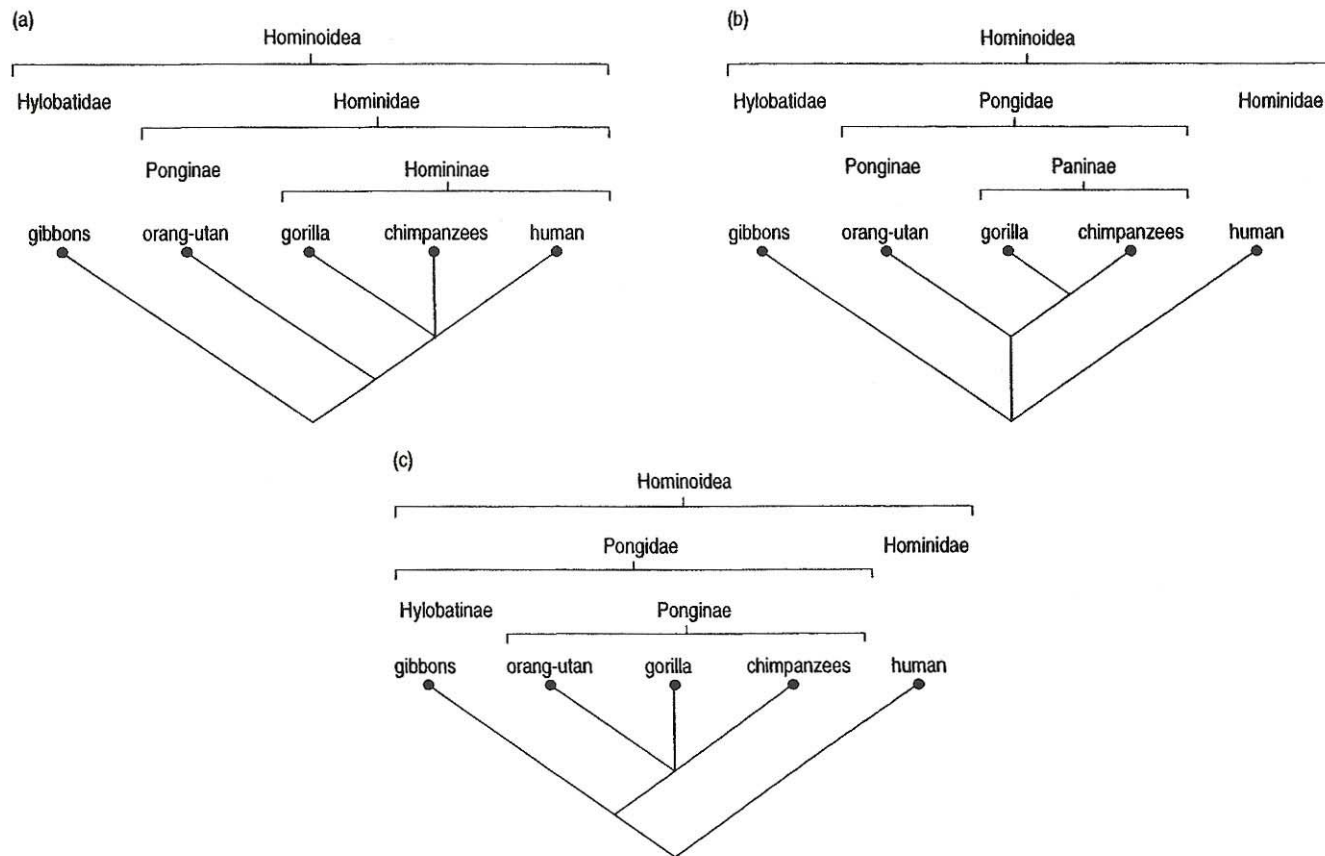


Figure 12:

Classifications and implied cladograms of hominoids.
 The ancestry of humans and apes, as currently understood, is shown in (a), with the classification that fits this analysis.
 Two other classifications in use are shown in (b) and (c), with the cladistic relationships they imply.
 Redrawn from Patterson, C. (1982) Cladistics and classification, New Scientist, 94, 303-206, Figure 6

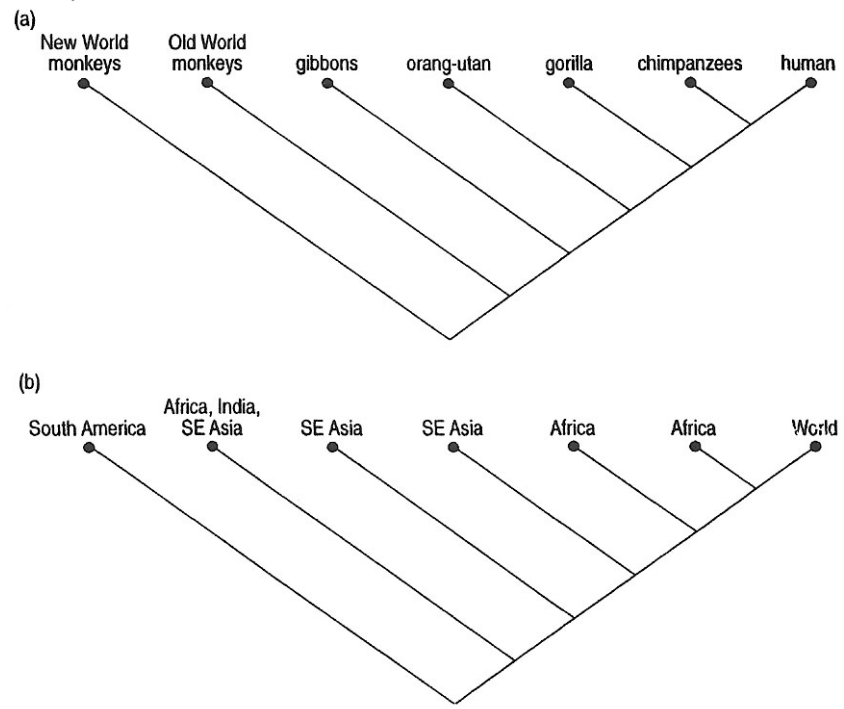


Figure 13:

(a) Cladogram of the higher primates. (b) Area cladogram, with the names of the groups in (a) replaced by the names of the areas where they are found