

Supplementary information

THE EVOLUTIONARY RADIATION OF HOMINIDS: A PHYLOGENETIC COMPARATIVE STUDY

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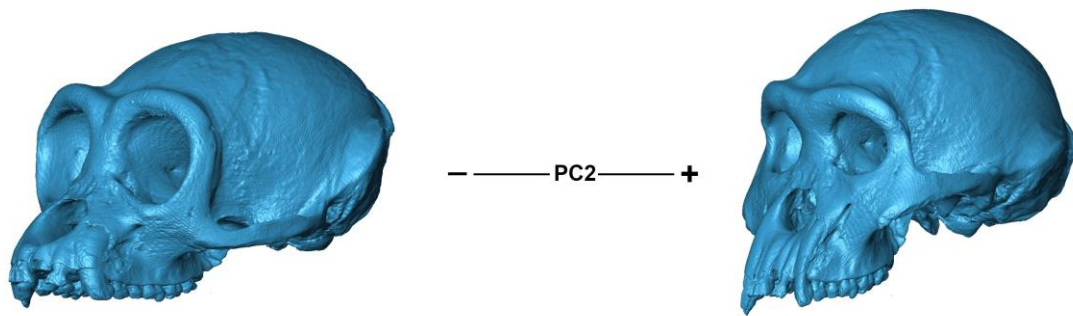


Fig. S1 - Craniofacial shape changes correspondent to PC2 obtained by warping the minimum and maximum scores with Morpho and geomorph packages for R software.

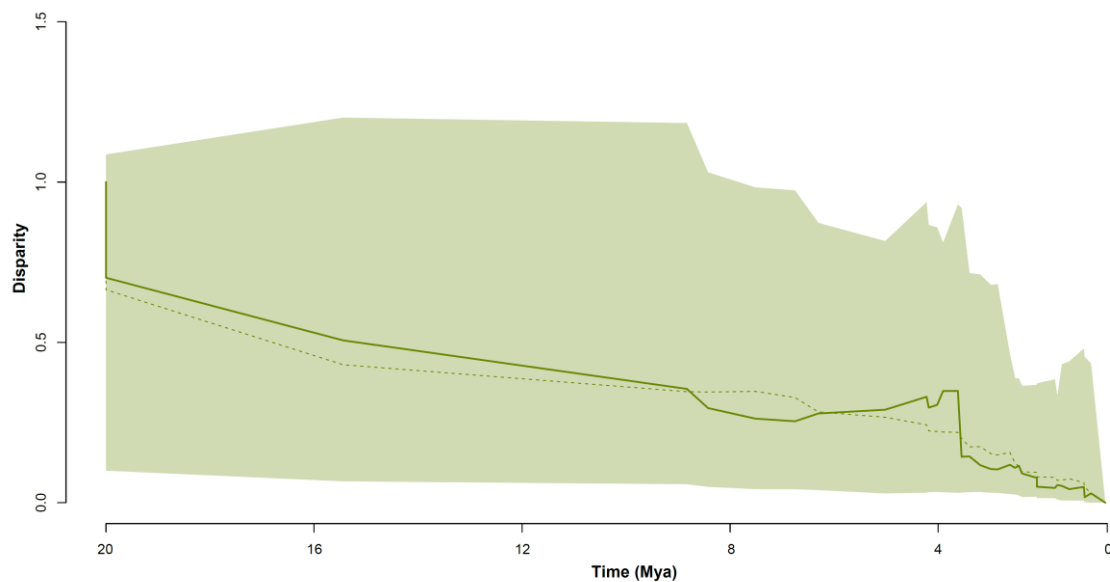


Fig. S2 - Disparity-through-time (DTT) plot using PC1 scores estimated from the hominoid species morphometric data. Dashed line depicts the mean of simulated disparity under a Brownian motion model. The shaded area represents the 95% confidence interval of the simulated data.

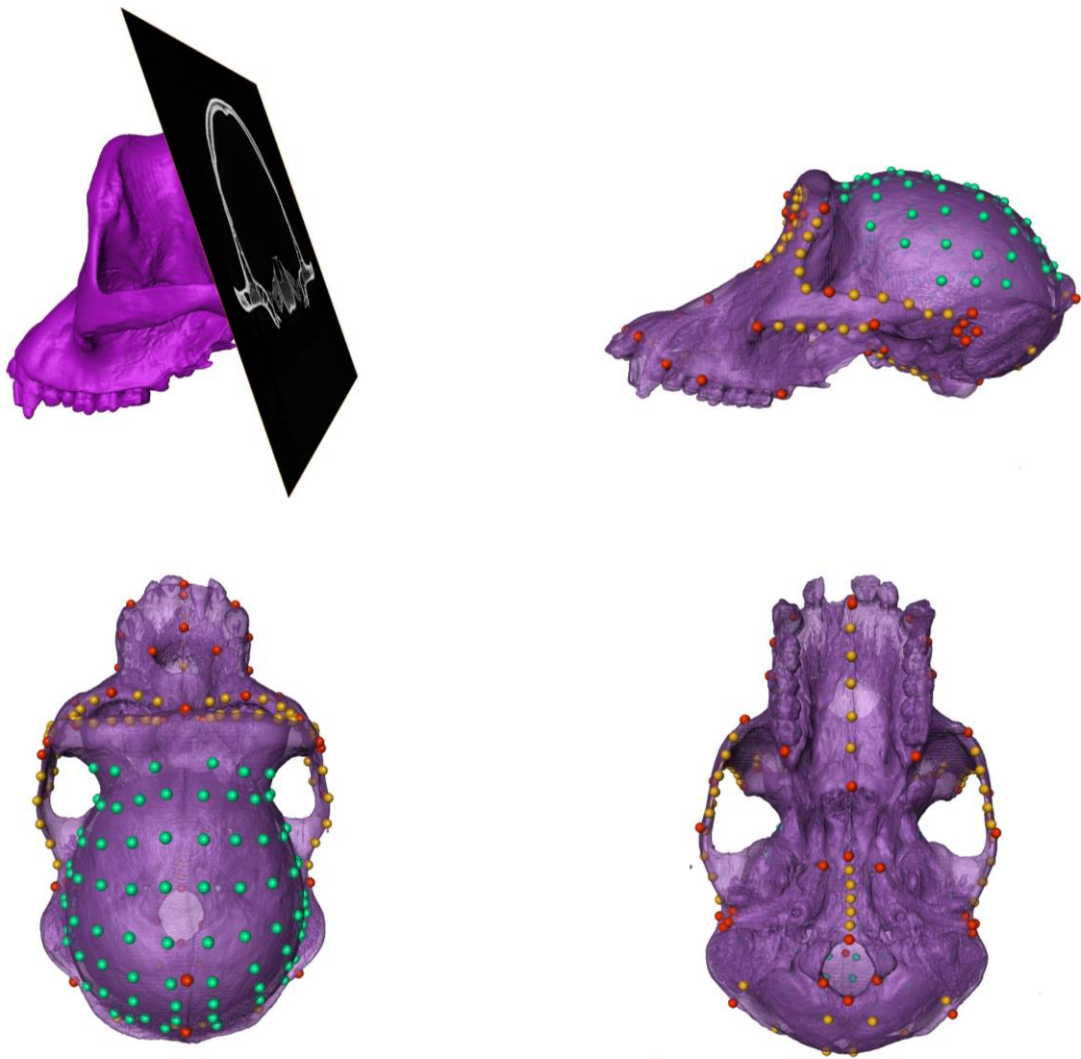


Fig. S3 - (a) Example of CT scan of a chimpanzee (*Pan troglodytes*) skull and one of the slices included in it. (b-d) Lateral, superior and inferior view of .PLY format skull surfaces indicating the location of the studied landmarks (red), curve (yellow) and surface (cyan) semilandmarks.

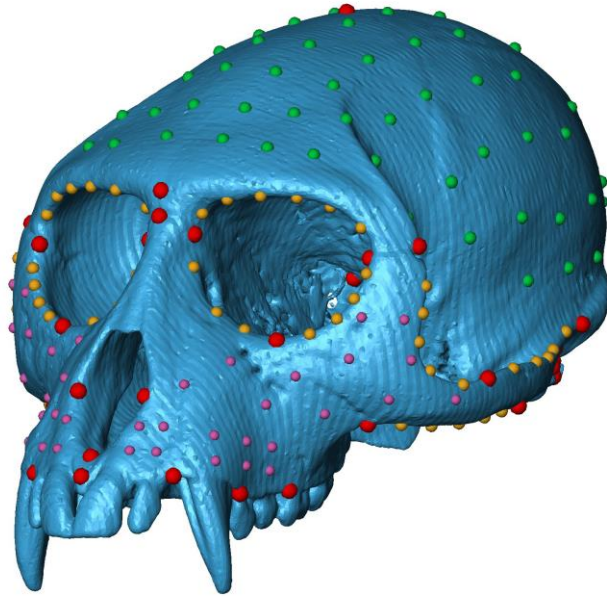


Fig. S4 - CT scan of an African green monkey (*Chlorocebus aethiops*) with landmarks (red), curve semilandmarks (yellow), neurocranial surface semilandmarks (light green) and maxilla surface semilandmarks (pink). Reference point configuration used for comparing alternative landmark surface coverages.

Table S1 - Details of the Hominoid sample used in this study.

Species	<i>n</i>	Clade	Source or Institution ^a	Accession numbers
<i>Gorilla beringei</i>	10	Hominidae	USNM	239883; 241232; 395636; 397351; 397353; 545026; 545027; 545028; 545029; 545032
<i>Gorilla gorilla</i>	10	Hominidae	KUPRI; MXP	24 (KUPRI); 109 (MXP); 111 (MXP); 112 (MXP); 128 (MXP); 129 (MXP); 133 (MXP); 146 (MXP); 151 (MXP); 153 (MXP)
<i>Homo sapiens</i>	9	Hominidae	USNM; MLP	698 (USNM); 724 (USNM); 738 (USNM); 840 (USNM); 17735 (MLP); 17737 (MLP); 225129 (MLP)

				(USNM); 226086 (USNM); 228477 (USNM)
<i>Hoolock hoolock</i>	2	Hylobatidae	USNM	257988; 545009
<i>Hoolock leuconedys</i>	1	Hylobatidae	USNM	279146
<i>Hylobates agilis</i>	7	Hylobatidae	USNM	113176; 113177; 113179; 114499; 114501; 123151; 113180;
<i>Hylobates albibarbis</i>	4	Hylobatidae	USNM	145328; 153797; 153798; 153801
<i>Hylobates klossii</i>	4	Hylobatidae	USNM	121674; 121679; 121680; 121681
<i>Hylobates lar</i>	10	Hylobatidae	USNM	83262; 83263; 83264; 83515; 111970; 111988; 111989; 111990; 171982; 253539
<i>Hylobates moloch</i>	2	Hylobatidae	USNM	154721; 154722
<i>Hylobates muelleri</i>	9	Hylobatidae	USNM	83947; 83948; 196779; 196782; 196783; 197643; 198268; 198269; 198270;
<i>Hylobates pileatus</i>	1	Hylobatidae	USNM	201554
<i>Nomascus concolor</i>	2	Hylobatidae	USNM	320786; 320789
<i>Nomascus gabriellae</i>	1	Hylobatidae	USNM	257995
<i>Nomascus leucogenys</i>	2	Hylobatidae	USNM	240490; 240491
<i>Pan paniscus</i>	8	Hominidae	RMCA	13202; 15296; 20881; 20882; 21697; 28712; 29035; 84036
<i>Pan troglodytes schweinfurthii</i>	10	Hominidae	RMCA	83006M13; 83006M14; 83006M15; 83006M16; 83006M17; 83006M31; 83006M32; 83006M33; 83006M34; 83006M35
<i>Pan troglodytes troglodytes</i>	7	Hominidae	USNM	84655; 174699; 174703; 174704; 174706; 174707; 176228
<i>Pongo abelii</i>	10	Hominidae	MXP; KUPRI	210 (MXP); 211 (MXP); 214 (MXP); 227 (MXP); 239 (MXP); 262

				(MXP); 271 (MXP); 272 (MXP); 283 (MXP); 796 (KUPRI)
<i>Pongo pygmaeus</i>	10	Hominidae	MXP	207; 215; 216; 217; 218; 221; 225; 233; 248; 253
<i>Symphalangus syndactylus</i>	7	Hylobatidae	USNM	114497; 141160; 141161; 143577; 143580; 171981; 271048
<i>Homo habilis</i>	1	Hominidae	AfricanFossils.org	KNMER-1813
<i>Homo erectus</i>	1	Hominidae	MorphoSource/Duke University	Sangiran 17 (EA-CCC-06)
<i>Homo neanderthalensis</i>	1	Hominidae	MorphoSource/Duke University	Amud 1 (EA-CCC-08)
<i>Homo heidelbergensis</i>	1	Hominidae	MorphoSource/Duke University	Kabwe skull (EA-DCC-03)
<i>Homo naledi</i>	1	Hominidae	MorphoSource/Duke University	Composite skull based on DH1 and DH3.
<i>Homo rudolfensis</i>	1	Hominidae	AfricanFossils.org	KNMER-1470
<i>Homo floresiensis</i>	1	Hominidae	Human Evolution Gallery – Natural History Museum (London)	LB-1
<i>Australopithecus afarensis</i>	1	Hominidae	MorphoSource/Duke University	Composite cranium based on AL 333
<i>Australopithecus africanus</i>	1	Hominidae	European Virtual Anthropology Network (EVAN)	STS-5
<i>Paranthropus boisei</i>	1	Hominidae	MorphoSource/Duke University	OH5 (EA-CCC-02)
<i>Paranthropus aethiopicus</i>	1	Hominidae	AfricanFossils.org	KNM-WT 17000
<i>Paranthropus robustus</i>	1	Hominidae	European Virtual Anthropology Network (EVAN)	SK-48
TOTAL	138			

^a Abbreviations defined in text.