Before publishing, the manuscript would benefit from an extensive revision of the text (see suggestions below), and by the inclusion of an important consideration in the discussion. Namely, the authors state that they expand the sample on the previous study by Buhllar et al., (2012)(lines 197-198), and that they perform a more comprehensive and detailed analysis of the basal theropod and basal sauropodomorph tree (lines 658-659). However, it is also very important to acknowledge that their taxonomic sampling is indeed different from that of Buhllar et al. (op. cit.). In Buhllar et al., (op. cit.), modern croc and avian trajectories were sampled, implying that a different source of large-scale archosaurian craniofacial innovations were included which in this study are lacking. At this large macroevolutionary scales, comparing morphologies of one region of the tree is different than comparing shapes across a wider area of the tree (i.e., results are inevitably sample-dependent). Given this situation, it is important to acknowledge in the text that the analytical outcomes will likely change if—as stated (lines 150-151, introduction)—this study is expanded with further sampling across the tree.

Lines 353-357- "on the basis of Procrustes coordinates" which were "transformed into a regression score"?, and "log-transformed centroid sizes which were generated by GPA"… Sentence methodologically unclear.

Line 359 Reword suggestion "this" for "our approach"

Line 360 Reword suggestion heterochronic "processes", for "patterns between"…

Line 361 Reword suggestion angles "size" for "range of shape variation spanned by the predicted regression score"

Line 370 Reword suggestion "can source", not clear what is meant

Line 370 Reword suggestion "in themselves" delete

Line 370 Reword suggestion (RS) "allow only conclusions" entire sentence from 369-373 is unclear

Line 374 RS "was higher" means "falls along higher regression scores" or something alike

Line 375 RS " on a lower score" for "along lower scores"

Line 376 "of such regression analyses", delete "by". Note that Euclidean distance here is equivalent (not the same) to Procrustes distance because the latter was projected onto tangent space.

Line 379 "from the original Procrustes coordiantes"

Line 380 "and adjusted for regression analyses based on the juvenile specimen…., the SPECIMEN in the sample with the smallest CS. Would be quite helpful to explain this better.

Line 559 Line is confusing; "The ontogenetic trajectory of Massopondylys is longer for both shape proxies than that of….. [obviously cannot compare a trajectory to an HTU]

Line 561 "and the Euclidean distance of de adult individual to …. Are significantly lower"

Line 563 and 564; slopes are e.g., more or less pronounced

Line 569 "higher shape values"…higher regression scores than for those of the…

Line 573 while the Eucliden distance is lower but NOT significantly different?

Line 576 "shape proxies"??

Line 581 "decrease in slope angle" or "slope decrease"

Line 584 [and extensible for all the "shape proxy" allusions"] something like "predicted" shape trajectories

Line 588 non statistically significant value

Line 590 Based on "which" analysis? Regression?

Line 596 Lower score values account for? correspond to?

Line 615 RS long phylogenetic distance… For "large"

Line 622 which is "morphologically very distinct" from "other" basal…

Line 623 This is especially obvious in the large distance within morphospace between Massospondylus and Coelophysis….

Line 629 Separation cannot "already affect", might e.g., "take place among"; or "the separation among juveniles within juveniles might indicate that…."

Line 630 e.g. "Although the distances among such specimens in morphospace is large, the trajectories…"

Line 631 "occupying"

Line 638 "share in common the relative elongation of the snout", perhaps a morphological trend within Megalosaurids.

Line 640 "deeper, rather than longer? skulls"

Line 646 "the more derived ontogenetic stage"? unclear what this means