Response to second-round reviews and editorial comments on: *What do we mean by the directions “cranial” and “caudal” on a vertebra?*

Mike Taylor

Our gratitude goes to the handling editor and reviewers for turning this resubmission around promptly. We are pleased to see that we are converging on a satisfactory conclusion. We have addressed the new comments as follows:

# Comments on review 1 (Ryan D. Marek)

Taking Marek’s suggestion to further combine illustrations together with Tschopp’s strong feeling that this should not be done, we unsurprisingly side with Tschopp. We feel that the push towards reducing figure count arises from a habituation to how things are done at prestige journals such as *Science* and *Nature*: but one of the great joys of proper online journals is that there is no need to squeeze space, making it possible instead to focus on clarity. We have therefore kept the set of illustrations as it was in the previous version.

We are grateful for the suggestions of changes in wording, and have adopted some of them.

We have added some references where requested.

The point that orientation is important for morphometric landmarks is useful, and we have incorporated it. We have followed other suggested tweaks that improve the generality of statements that at times are too focused on angles.

The suggested changes to Figures 1, 2 and 3 are all helpful, and we have implemented them.

# Comments on review 2 (Emanuel Tschopp)

Tschopp’s further comments on the matter of neural canal cross-sectional area are well taken. We have revised the relevant section of the manuscript to make our point in a different way, recognising that the area shown in Figure 2, parts A and B is simply incorrect, and that this is itself an argument for using a neural-canal-based definition.

We are grateful to the reviewer for catching some embarrassing typos and grammatical errors.

Tschopp noted that the vertebrae in Figure 3, unlike all the others in the manuscript, were shown in left lateral view. We have reversed Figure 3 to bring its lateral-view images in line with those elsewhere in the paper.

# Comments on handling editor’s summary (Peter Falkingham)

We are happy to move the Open Peer Review section down into the acknowledgements, as you suggest. This seems like a happy arrangement that both preserves important material and prevents it from interrupting the main flow of the argument.

We resist the suggestion of shopping the backgrounds out of Figure 11. The purpose of that particular illustration is precisely to show the “rough and ready” approach in action in real physical environments, and presenting it in a neatly cleaned-up form would undermine that.

# Miscellaneous changes

In addition to the requested changes to Figures 1–3, we have also updated Figure 10 to include arrows showing the translation and rotation performed in Method 4.

We have updated the acknowledgements.

Overall, we are really pleased with the form this paper has arrived in.