

Solid Earth Discuss., referee comment RC2
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Comment on se-2020-209

Anonymous Referee #2

Referee comment on "Crustal structure of the East African Limpopo margin, a strike-slip rifted corridor along the continental Mozambique Coastal Plain and North Natal Valley" by Mikael Evain et al., Solid Earth Discuss., <https://doi.org/10.5194/se-2020-209-RC2>, 2021

This manuscript presents results from a recent active source seismic survey offshore the coastal plain of Mozambique. These results are interpreted in terms of the past breakup of Gondwana, and kinematic plate reconstructions are explored to explain the results. Unfortunately, in its current state, I had difficulty in following what the main new findings were from the geophysical analysis and how they supported the conclusions.

As a reader who was unfamiliar with the detailed tectonic history of the region, I found it difficult to follow the main points presented in this manuscript. There are references to many local geographic and geologic features throughout, as well as seismic profiles, which is fine. But it would be helpful if all of the major features that are discussed in the manuscript are introduced on one of the earlier figures.

This may also in part be due to my unfamiliarity with the particular region, but I found it very difficult to follow how the new results presented in this manuscript supported the conclusions related to the tectonics and geodynamics of the region. Perhaps a summary of the main, new structural findings from the seismic and gravity analyses that are then referred to throughout the discussion would help. Additionally, summary figures with the major interpreted features in the geophysical results labeled may also help.

The size of the figure text significantly affected my ability to understand the manuscript easily. Some of the figures, or parts of the figures showing the seismic results may be able to be moved to the supplement.

There are minor grammar mistakes throughout, as well as occasional other errors suggesting a level of incompleteness such as incomplete citation information, underscores in figure axes labels, etc. These should be cleaned up before publication.