

Solid Earth Discuss., author comment AC2
<https://doi.org/10.5194/se-2021-105-AC2>, 2021
© Author(s) 2021. This work is distributed under
the Creative Commons Attribution 4.0 License.



Reply on RC2

Piotr Krzywiec et al.

Author comment on "Together but separate: decoupled Variscan (late Carboniferous) and Alpine (Late Cretaceous–Paleogene) inversion tectonics in NW Poland" by Piotr Krzywiec et al., Solid Earth Discuss., <https://doi.org/10.5194/se-2021-105-AC2>, 2021

Response to the comments made by Mark Cooper (reviewer 2).

Dear Mark,

A session held at the EGU General Assembly in 2019 and resultant Solid Earth Special Issue have been titled "Inversion tectonics – 30 years later" in order to emphasize 30 year anniversary of publication of the seminal GSL Special Publication No 44 "Inversion tectonics", coedited by you and G.D. William. In this context, we are especially thankful for your very positive review of our paper on inversion tectonics in NW Poland.

All the linguistic corrections you suggested have been taken into account. Regarding specific comments you made in the annotated pdf file with our paper:

Line 65 and line 73: we are glad that you agree with us on our opinion regarding the term "negative inversion" etc. We expended a bit section with discussion of positive versus negative inversion in order to (a) better acknowledge discussion on the same topic contained in Cooper & Warren (2020), and (b) to better clarify our point of view and to accommodate concerns raised by Gabor Tari who was responsible for another review of our paper.

Line 112: Laurussia i.e. the supercontinent that was formed in late Silurian as a result of a closure of Iapetus Ocean and collision of Baltica, Avalonia and Laurentia and ceased to exist due to the Variscan orogeny in late Carboniferous is correct term here (c.f. <https://www.intechopen.com/chapters/37859>). Laurasia was formed in Carboniferous–Permian out of Siberia, Kazakhstan and Baltica.

Line 254: unfortunately, no deep wells have been drilled into the axial parts of the sub-Permian half grabens so no maturity data is available to provide additional constrains regarding amount of erosion and burial / uplift history.

Fig. 2 and Fig. 4: 355° was changed to -5°

Fig. 3: indeed, this is a subcrop map of the units beneath the Variscan unconformity