Enigma of the Jurassic monster shift of the North China block

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Accumulation of the global paleomagnetic data, from both continental and oceanic plates, may suggest a true polar wander (TPW) event in Jurassic, with a rotation axis located in the present northwestern Africa, but no consensus has been reached regarding to the initiation, duration and velocity of the TPW. As one of the eastern Asian blocks, the north China block (NCB) is then located far from the rotation axis of the TPW and the plate convergence between Siberia and the Amur-NCB, known as the subduction in the Mesozoic Okhotsk-Baikal ocean, did exist. Paleogeographic changes observed of the eastern Asian blocks in Jurassic thus should contain the TPW component and plate moving component. To better estimate the influence of the TPW in the Eastern Asia blocks, we carried out a new paleomagnetic and precision U-Pb geochronological study on the middle Jurassic lavas in the NCB. Being profoundly different to the recent paleogeographic model (Yi et al., 2019, https://doi.org/10.1130/G46641.1) that suggest that the NCB experienced a large latitudinal displacement (monster-shift) responding to the TPW event between ~174 and ~157 Ma, we suggest that the NCB, as well as other blocks already connected with it, do not record any monster-shift between ~170 and ~160 Ma. The strata, ranging from 160 to 145 Ma, however, yield considerable paleomagnetic variations and need further investigation.