



Editorial

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The paper entitled “Are there connections between the Earth’s magnetic field and climate?” published in *Earth and Planetary Science Letters* (Courillot et al., 2007) triggered a “comment” (Bard and Delaygue, 2008) and a “reply” (Courillot et al., 2008). These publications, and EPSL’s handling of the “comment” and “reply” (hereinafter C08), have received significant attention in electronic and printed news media.

In a “comment–reply” exchange, standard editorial policy gives the responder the last word and requires that the “comment” is not changed once accepted by the Editor and replied to by the authors whose work is being criticized. In this case, Bard and Delaygue noticed inconsistencies in the citation of data sources in C08 and Courillot et al. (2007) after the (accepted) “comment” and “reply” had appeared online (but before they received galley proofs). They pointed this out in a “Note added in Proof” to their “comment”. Being against EPSL’s policy this modification was disapproved (and removed). However, properly reporting data is an essential aspect of scientific communication in that it enables independent evaluations of the analysis presented by authors. Therefore, Courillot et al. were asked to clarify (in C08) the source of the data used. For full disclosure, the note by Bard and Delaygue is reproduced here:

“In their Response to our Comment, Courillot et al. state that for the total irradiance curve $S(t)$ they had used the SOLAR2000 model product by Tobiska (2001) instead of the century-long record by Solanki (2002) cited in their original paper (Courillot et al. 2007). However, the SOLAR2000 model is restricted to the UV component and their total solar irradiance is severely flawed as pointed out by Lean (2002). For the global temperature T_{globe} curve cited from Jones et al. (1999) in Courillot et al. (2007), these authors now state in their response that they had used the following data file: `monthly_land_and_ocean_90S_90N_df_1901-2001mean_dat.txt`. We were unable to find this file even by contacting its putative author who specifically stated to us that it is not one of his files (Dr. Philip D. Jones, written communication dated Oct. 23, 2007).”

In response, Courillot et al. (2007) provided two modifications (in italics) in C08:

“The solar irradiance daily time series we used is that from the SOLAR2000 research grade model upgraded to v1.23A (file `Five_cycle_v1_23a.txt` dated 23 April 2003) which covers the time period from 14 February 1947 to 31 May 2002 (Tobiska, 2001; *note that in Le Mouél et al., 2005, this data set was erroneously attributed to Solanki, 2002, although resulting changes are negligible.*)” and

“The temperature series we actually used is obtained from Briffa et al. (2001) — specifically, column 7 of ftp://ftp.ncdc.noaa.gov/pub/data/paleo/treering/reconstructions/n_hem_temp/briffa2001jgr3.txt, that is, years 1871 to 1997 — which is, originally, from Jones et al (1999) as quoted. All we did was to average it over an 11 yr sliding window.”

The ftp link shows that the temperatures used are indeed from Jones and co-workers, but instead of global, annual means they are seasonal estimates from land regions north of 20°N. With access to the correct data files readers can form their own opinion on the analysis of and conclusions by Courillot et al. (2007).

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References

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- Courillot, V., Gallet, Y., Le Mouél, J.-L., Fluteau, F., Genevey, A., 2008. ‘Response to comment on “Are there connections between Earth’s magnetic field and climate” by Bard, E., and Delaygue, G.,’. *Earth Planet. Sci. Lett.* 265, 309–311.