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***Interactive comment on* “The role of subpolar deep water formation and Nordic Seas overflows in simulated multidecadal variability of the Atlantic overturning” by K. Lohmann et al.**

K. Lohmann et al.

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Reply to OSD-C586-2013:

The authors would like to thank A. Levermann for pointing out further literature. We find it interesting to note that also the respective role of subpolar deep convection and Nordic Seas overflows regarding the subpolar gyre strength has been discussed within the literature. We therefore added the following sentences to the introduction:

"We note that the respective role of subpolar deep convection and Nordic Seas overflows has also been discussed regarding the intensity of the subpolar gyre, based on coarse-resolution climate and conceptual models (Levermann and Born, 2007; Born

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and Stocker, 2014). This question remains nevertheless also widely open."

Born, A. and T.F. Stocker (2014): Two stable equilibria of the Atlantic subpolar gyre. *Journal of Physical Oceanography*, 44, 246-264

Levermann, A. and A. Born (2007): Bistability of the Atlantic subpolar gyre in a coarse-resolution climate model. *Geophysical Research Letters*, 34, L24605

Interactive comment on *Ocean Sci. Discuss.*, 10, 1895, 2013.

OSD

10, C871–C872, 2014

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