

## ***Interactive comment on “Non-linear intensification of Sahel rainfall as a dynamic response to future warming” by Jacob Schewe and Anders Levermann***

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Page 1 - There is a typo, line 22 "(Biasutti, 2013) - line 24, the reference should be placed after "Sahel rainfall". You can also cite Fontaine et al. (2011), among others Fontaine B, Roucou P, Monerie P-A (2011) Changes in the African monsoon region at medium-term time horizon using 12 AR4 coupled models under the A1b emissions scenario. Atmos Sci Lett 12:83–88. doi:10.1002/asl.321 Page 2 - Line 18 "The positive trend.." is in fact obtained in at least 80 % of the CMIP5 simulations in Biasutti (2013), it is not only due to the wet7 - Line 19-21: The Wet7 is able to reproduce the 1970-1989 drought magnitude, but what is your conclusion? Do you think these models projections to be more reliable? Do there is a link between the projection and a models

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ability to reproduce the current climate? - Line 22: "The seasonal distribution.." It is also the case for the other models (not only with the Wet7). You do not comment the large spread obtained with Figure3. Page3 - Line 1-3: Is it in contradictory with Park et al. (2016)? - Line 4: Are you analysing the global SSTs? This sentence is not clear Did you found the same results focusing on the North Atlantic Ocean, or the Mediterranean Sea? Figure - Figure7: if we only consider the period with a continuous increase in the GHGs concentration, (the RCP8.5 emission scenario starts in 2005-2006), is the precipitation increase so abrupt?

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