

We thank Reviewer #3 for his/her comment. We performed additional sensitivity tests which suggest we can attribute the smaller LWP change in ACACT than ACT primarily to the change in the subgrid CDNC distribution. In the additional test we computed autoconversion using subgrid values for LWC, but grid-mean values for CDNC. As can be expected, the cloud and radiative properties in these simulations were between those in ACT and ACACT. This includes LWP, which shows that accounting for subgrid variability of LWC alone does contribute to the enhanced autoconversion as such. Yet, the relative LWP change between PI and PD was 12.5 %, which is much closer to ACT (12.8 %) than ACACT (10.9 %), so that at least in our model, the subgrid distribution of CDNC is the main aspect influencing the smaller LWP response. We have considered this explicitly in the manuscript in the last paragraph of Section 4.1 in the new version.