

## Replicating the Hadley Cell edge and subtropical jet latitude disconnect in idealized atmospheric models

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### General comments:

Menzel et al. use reanalysis and several models of varying complexity to explore the disconnect between the Hadley Cell edge and the location of the subtropical jet in DJF. They find that the disconnection can be simulated without moist or radiative processes or a zonally asymmetric state. Based on correlations, they argue that the disconnection is due to different sensitivities to midlatitude eddies, with the Hadley Cell edge being very sensitive to mid-latitude eddies, and the subtropical jet location less so. This is a really interesting study and helps address a gap in our dynamical understanding of the global circulation.

My concerns from the previous draft have been addressed, thank you. I have made a few, final, minor comments below. Otherwise, I think this manuscript is ready for publication and will make a useful contribution to the literature.

### Minor Comments:

Line 28: this sentence is a bit confusing to follow. Maybe a comma after 'is limited' would make it easier to read.

Line 47 and elsewhere: its not it's

Line 219/Figure 4: It would be good to remind the reader which is the default experiment in MB16 ( $\Delta = 10$ ) to make it easier to compare results between figure 3 and 4. Noting that the correlation is marked in red is helpful, but insufficient as all MB16 experiments are similar red or orange shades, so it is not immediately clear which one(s) you are referring to.

Fig 5. The caption should include that these values are zonal averages.