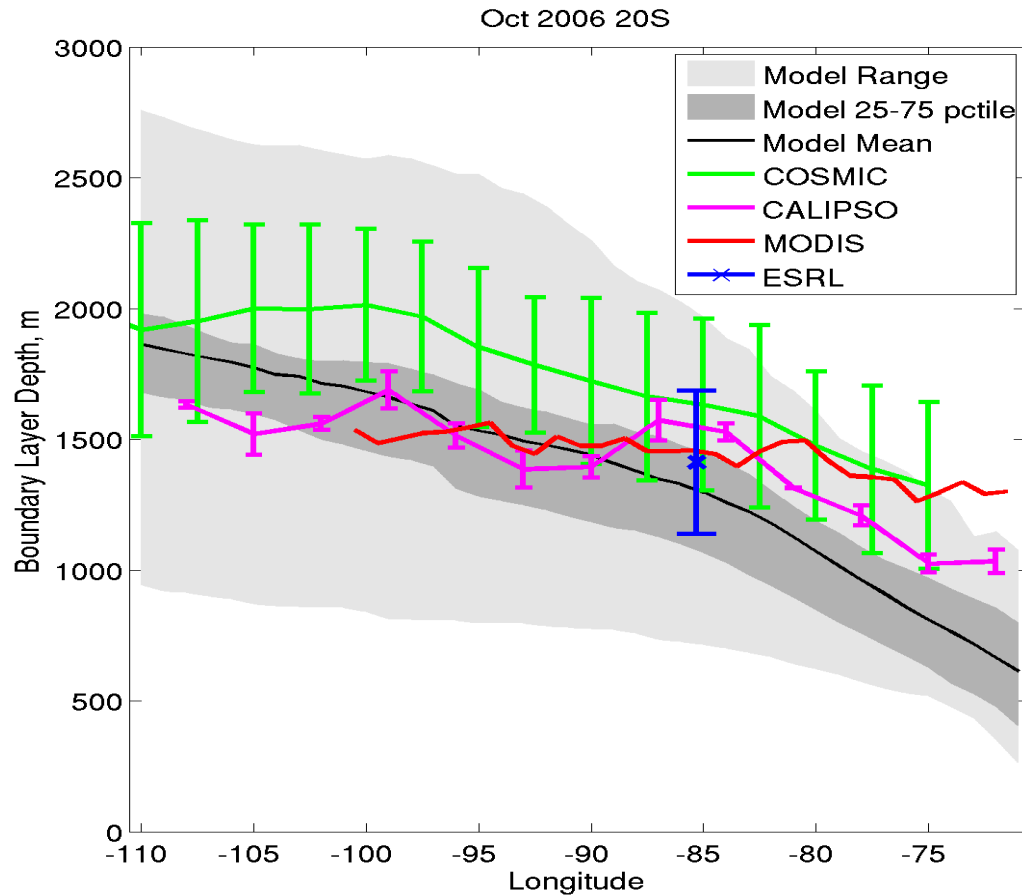


# Synthesis of session 1A

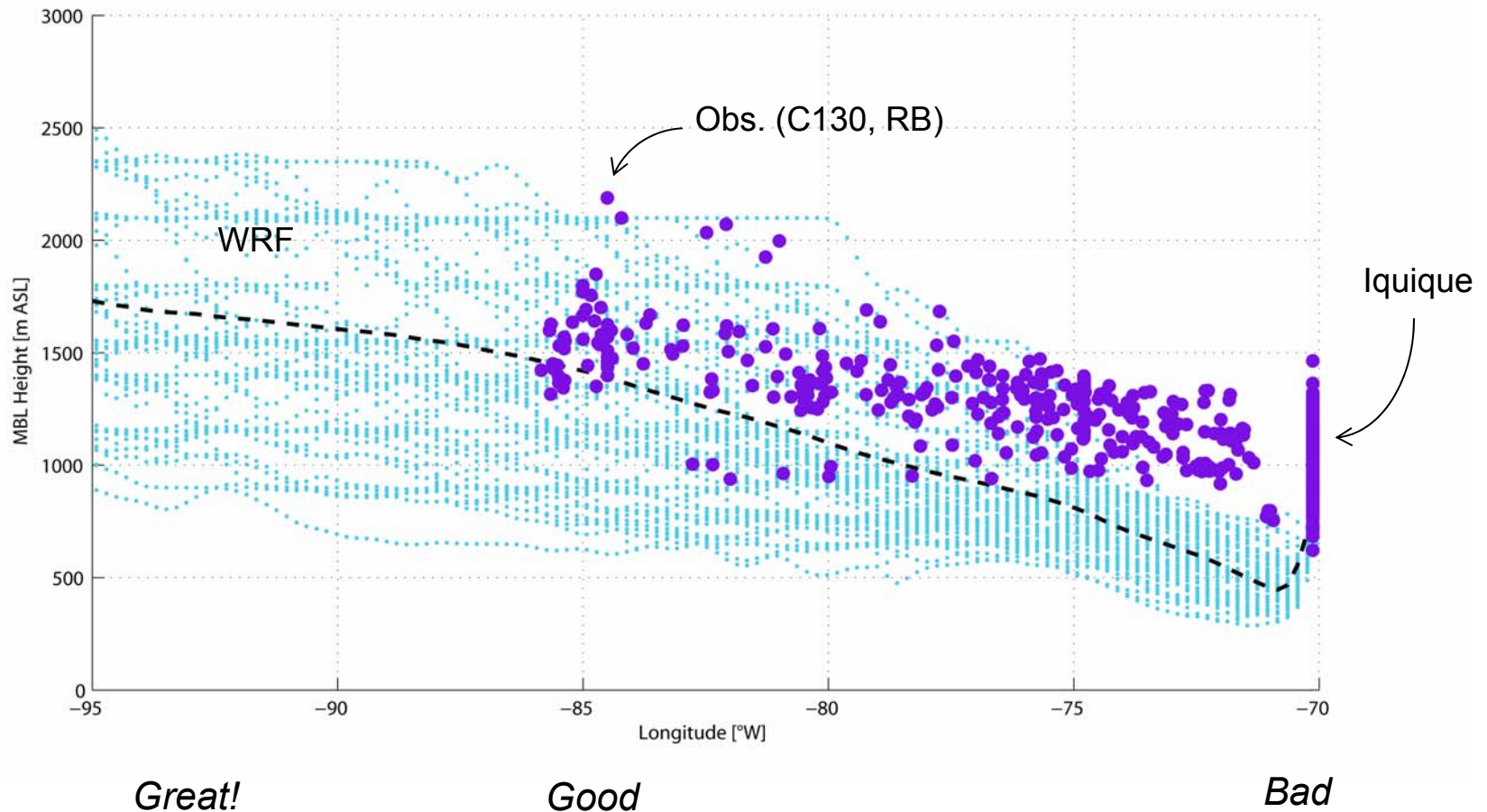
## Regional scale perspective

- R. Garreaud: MBL Variability
- T. Toniazzo: Synoptic scale forcing
- R. George: Subseasonal variability over the SEP
- M. Wyant: PreVOCA & VOCA
- H. Pan: NCEP GFS Modeling
- S. Wang: COAMPS real time evaluation
- L. O'Neill: Climo. of cloud LW diurnal cycle

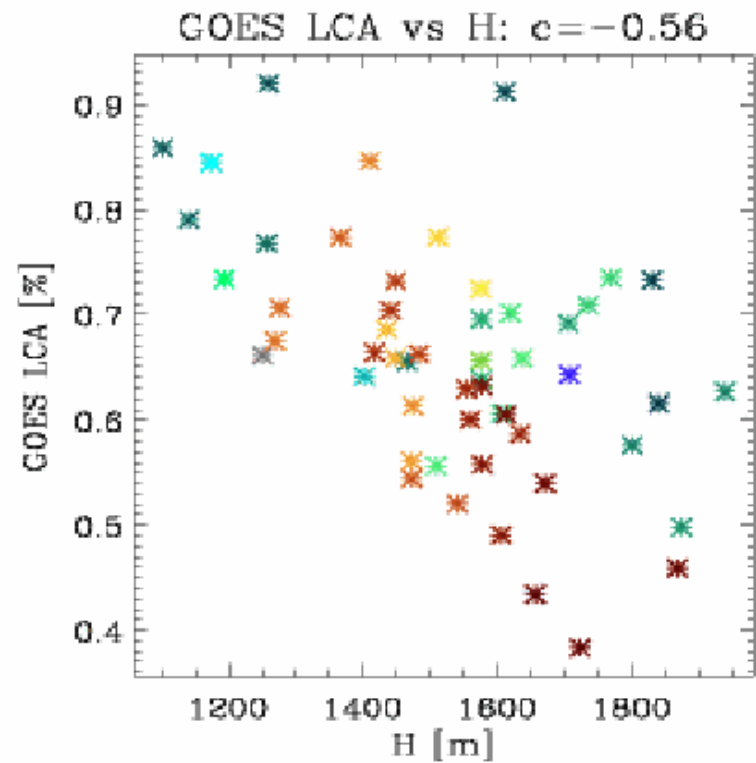
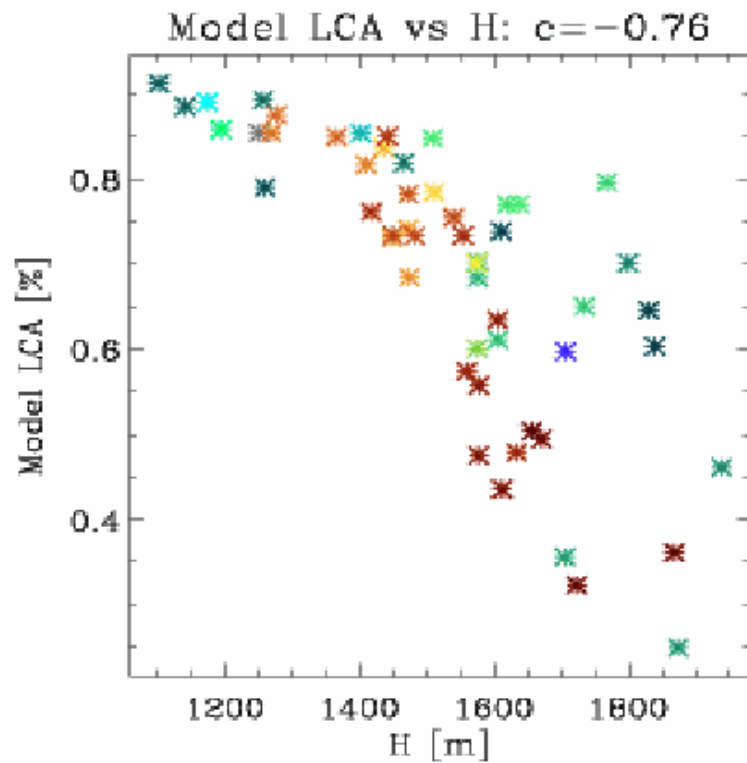
# PreVOCA: Mean Boundary Layer Depth Along 20°S



# Observed and Simulated (WRF) MBL height at 20°S during

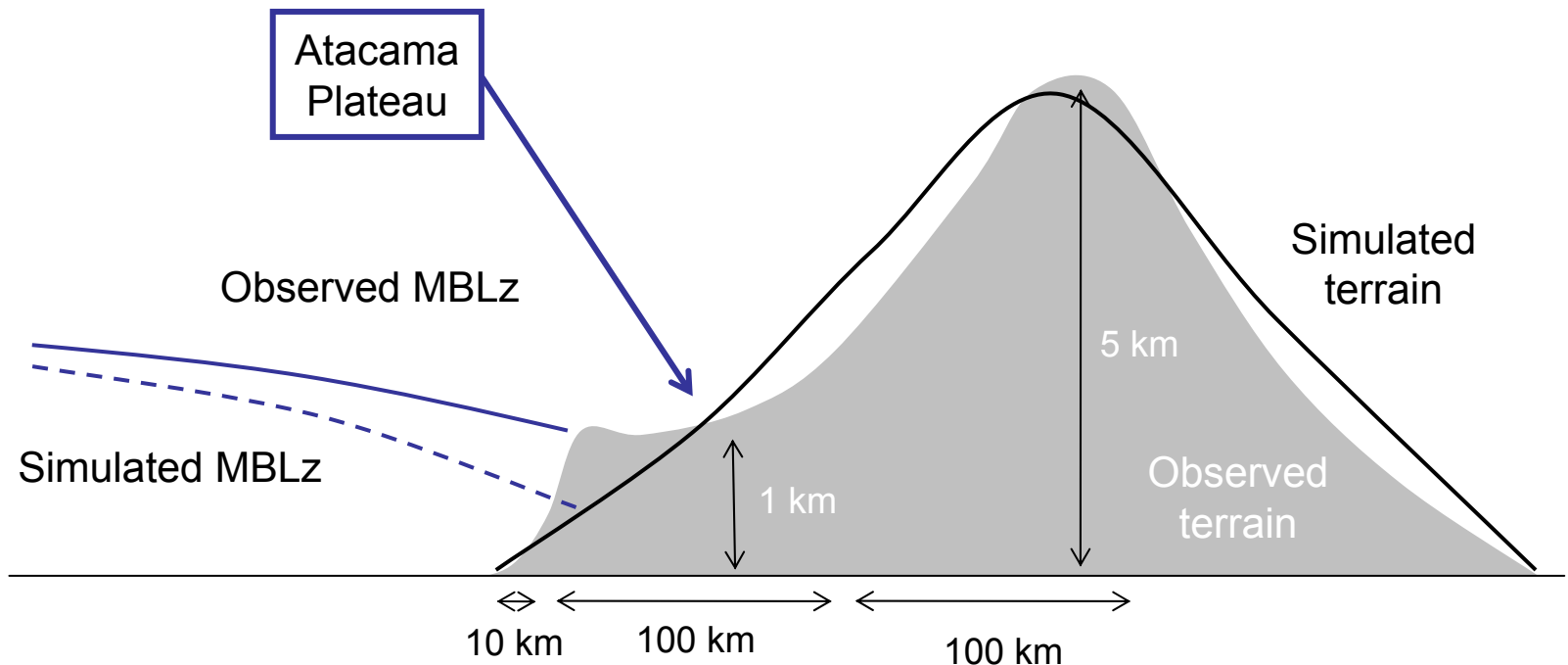


# Low Cloud Amount & MBL Height



# Coastal MBL

- Simulated height about half of observed value ( $\sim 1$  km)
- Very constant in time and uniform along a wide range of latitudes
- Significant diurnal cycle of winds above it
- What is wrong in our models? Perhaps lack of Atacama Plateau

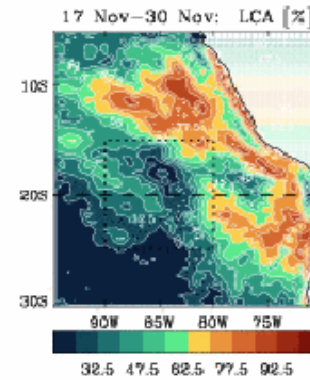
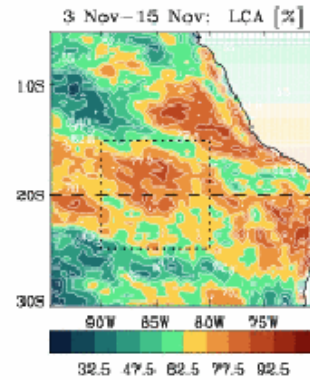
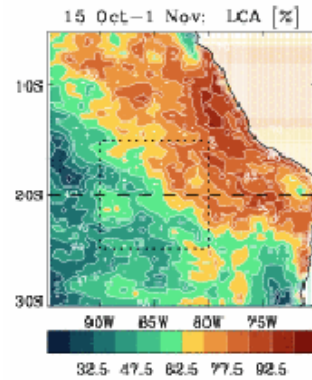


Oct 15 – Nov 1

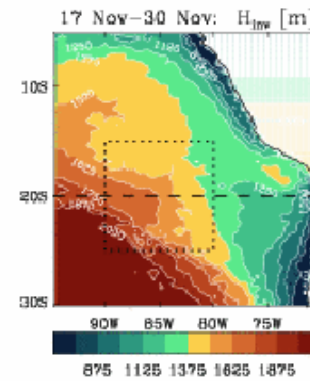
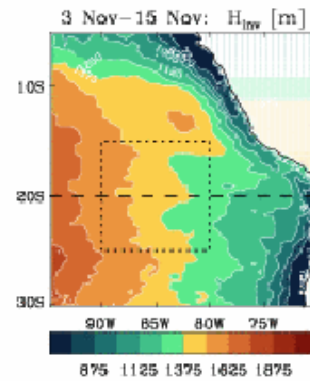
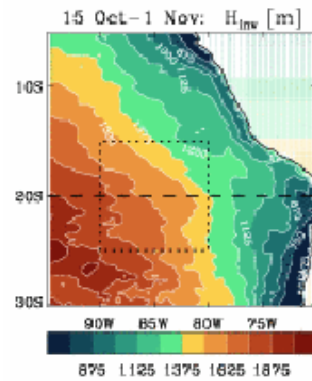
Nov 3 - 15

Nov 17 - 30

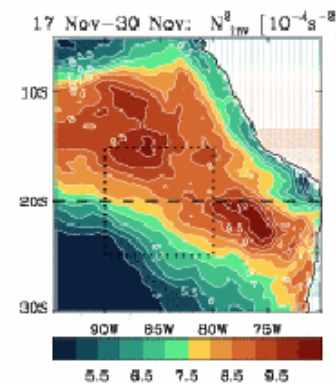
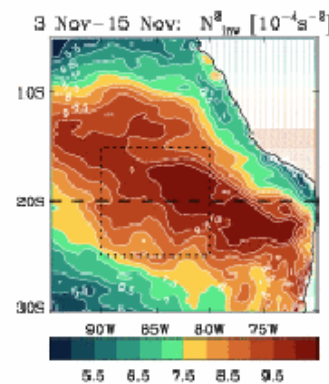
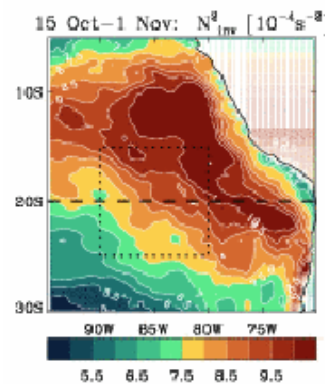
LCA



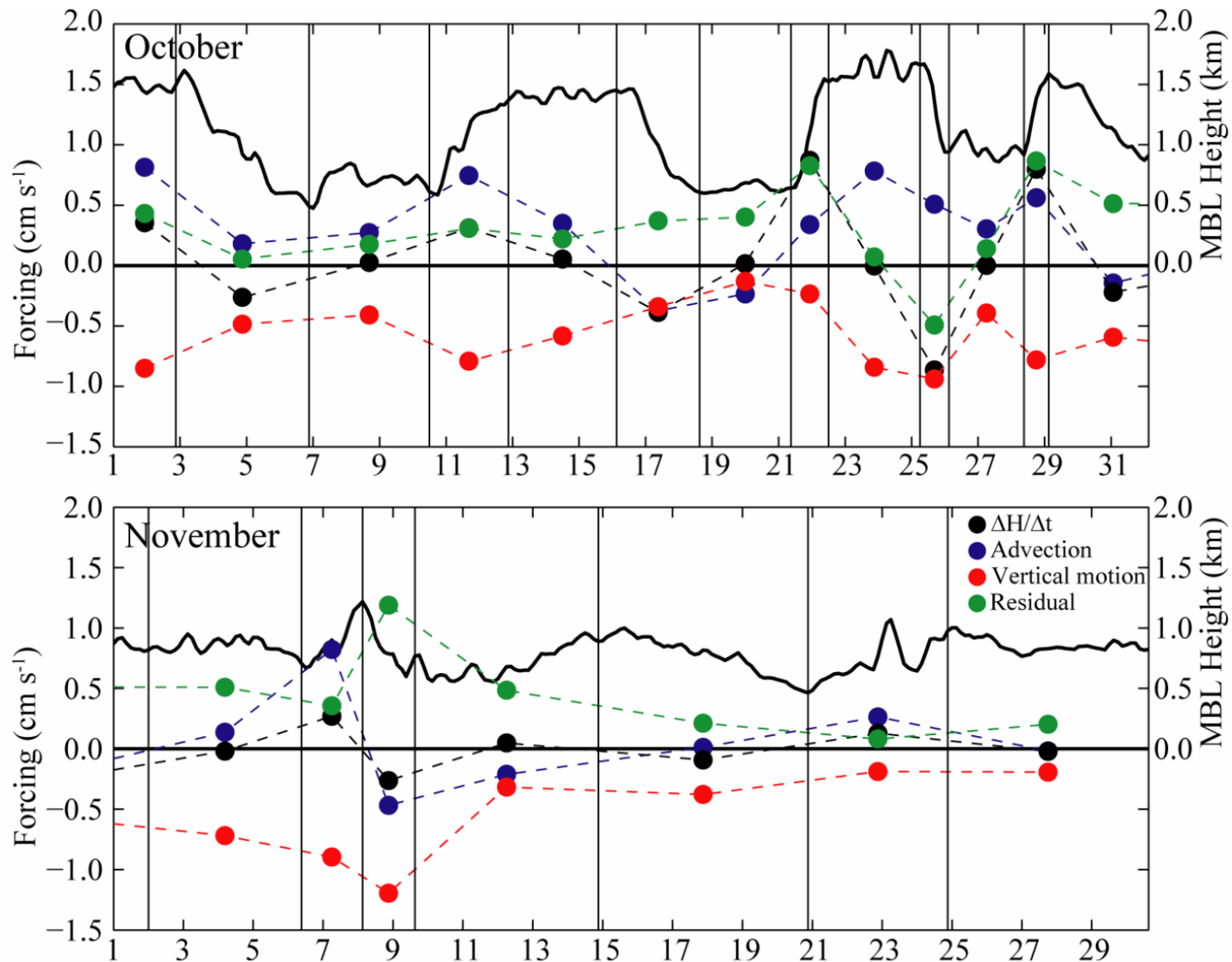
PBLz



$N^2$



# Time series at 20°S, 80°W



- As seen previously, October is much more variable than November.
- Subsidence and Residual are on average the largest, opposing terms
- Advection and  $dH/dt$  are more variable and appear to be related.