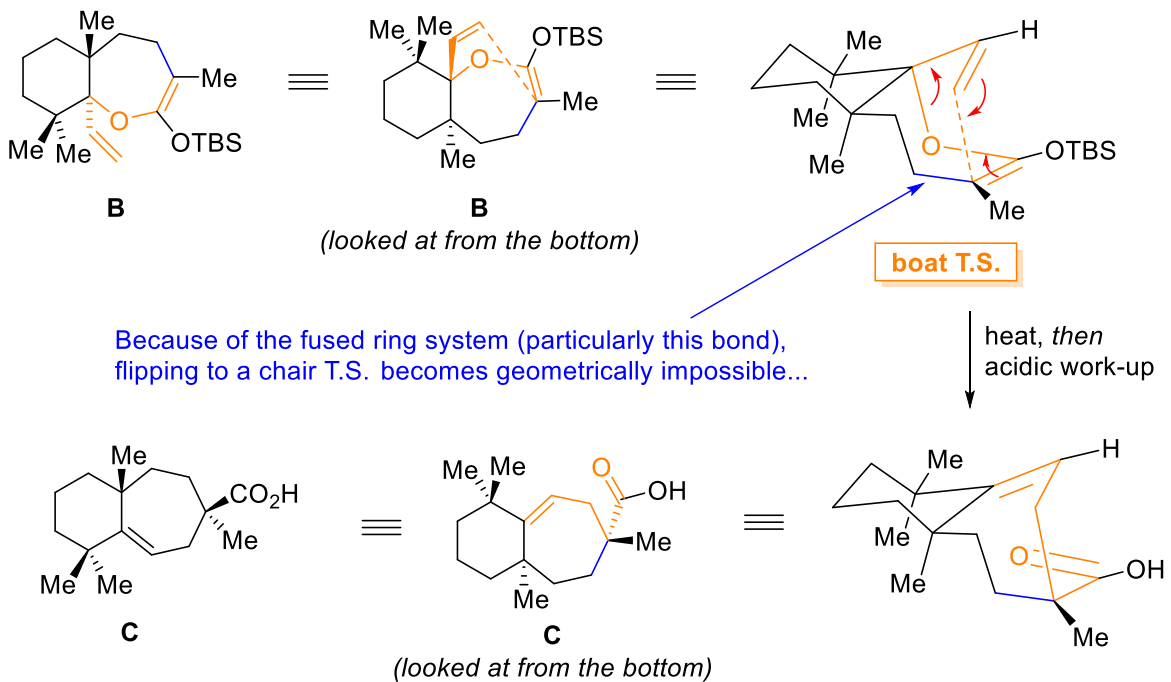
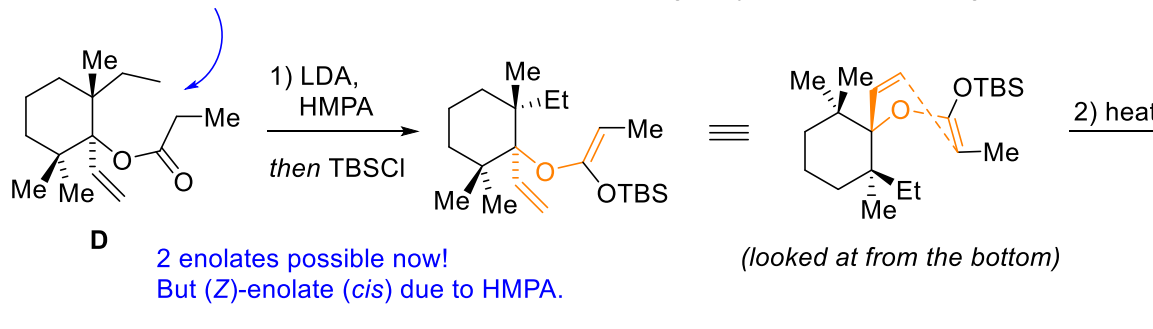
**Why only 1 diastereomer possible?**

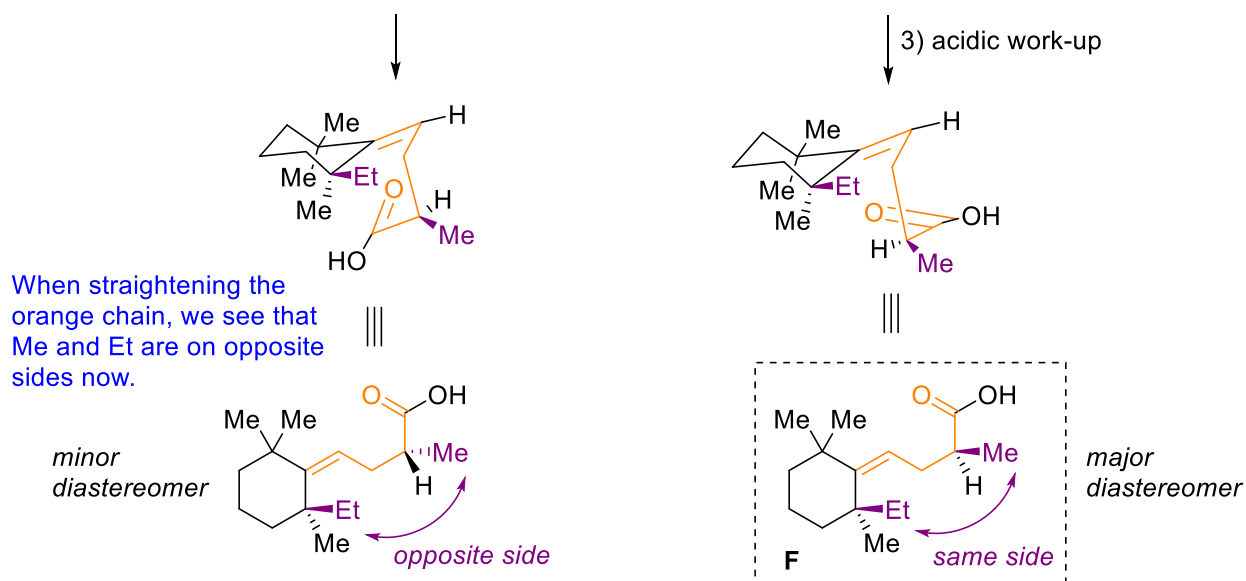
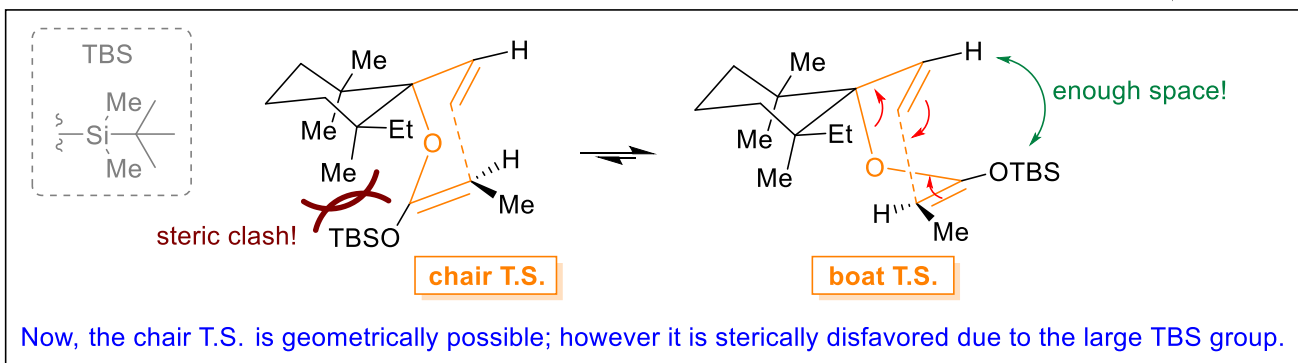
Due to geometric constraints: (i) only one enolate formation possible  $\Rightarrow$  product as single diastereomer  
(ii) only one 6-memb. T.S. possible



**What if the blue bond was absent?** --> no fused rings anymore, but still 1 ring present



2 enolates possible now!  
But (Z)-enolate (cis) due to HMPA.



**What if no HMPA added?**

Tight chair T.S. during deprotonation (cfr. course notes) would give the (E)-enolate (Me & OTBS are trans)  
--> after Ireland-Claisen with boat T.S., we end up with the opposite relative stereochemistry.

