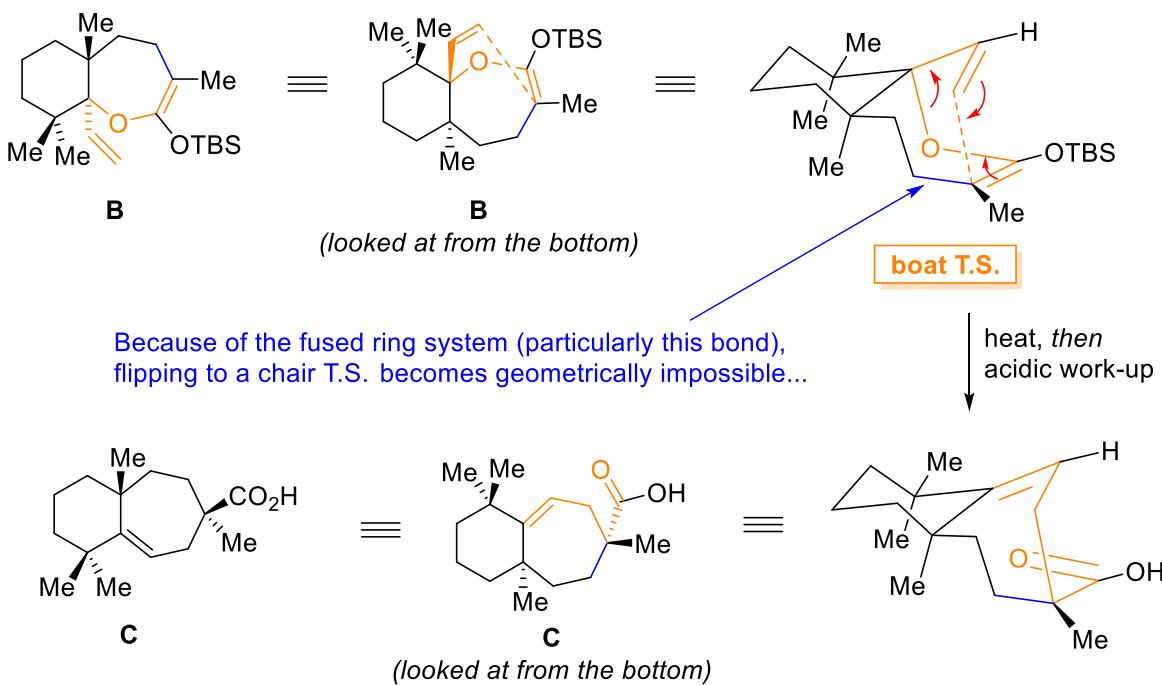
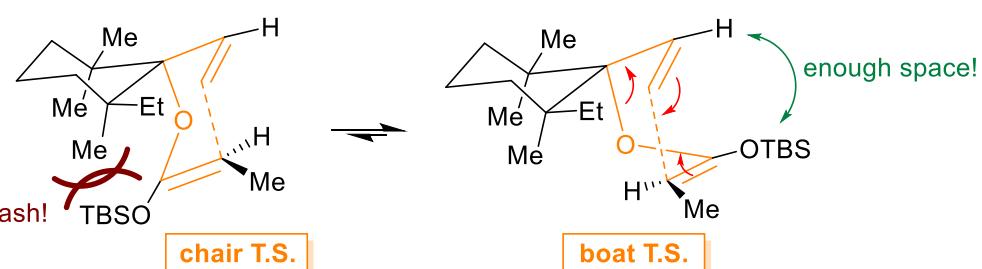
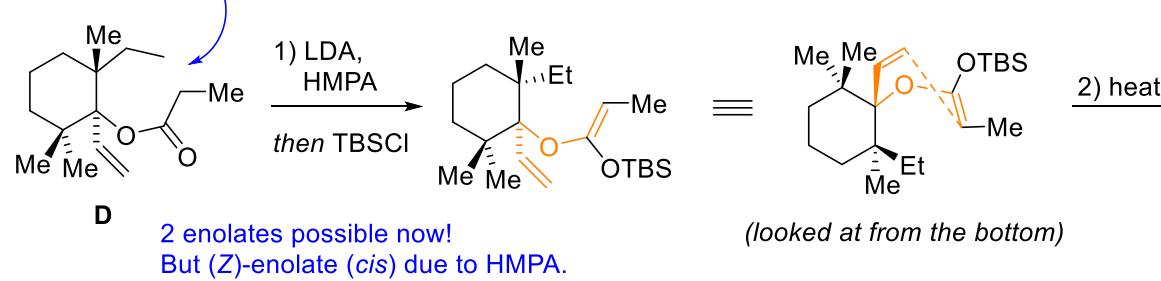


### Why only 1 diastereomer possible?

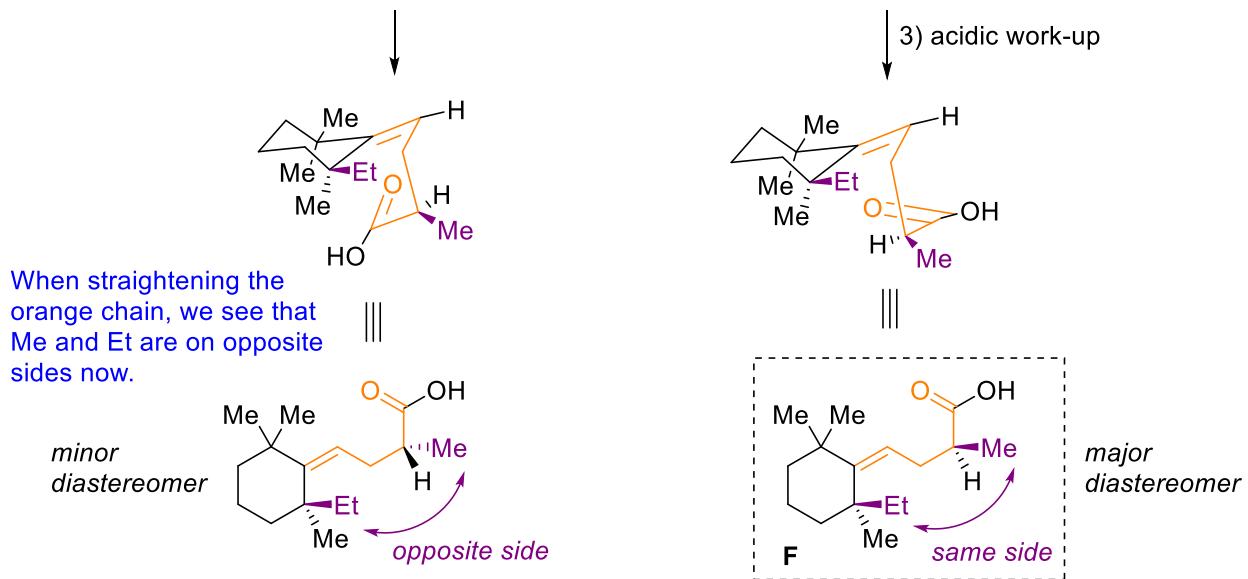
Due to geometric constraints: (i) only one enolate formation possible  
(ii) only one 6-memb. T.S. possible  $\rightarrow$  product as single diastereomer



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



Now, the chair T.S. is geometrically possible; however it is sterically disfavored due to the large TBS group.



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.

