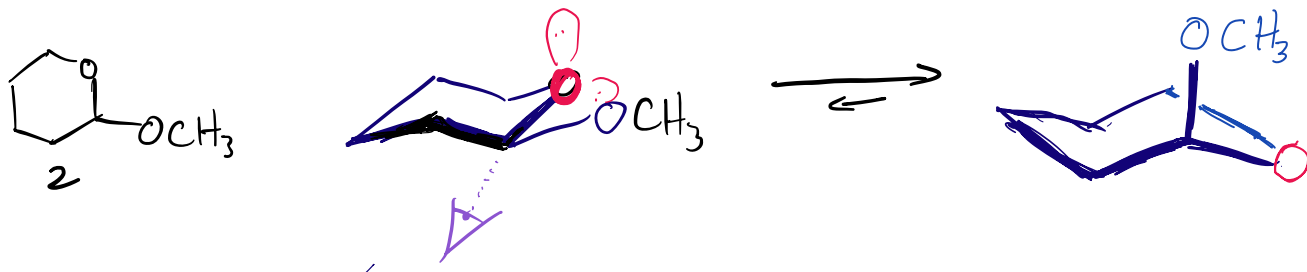


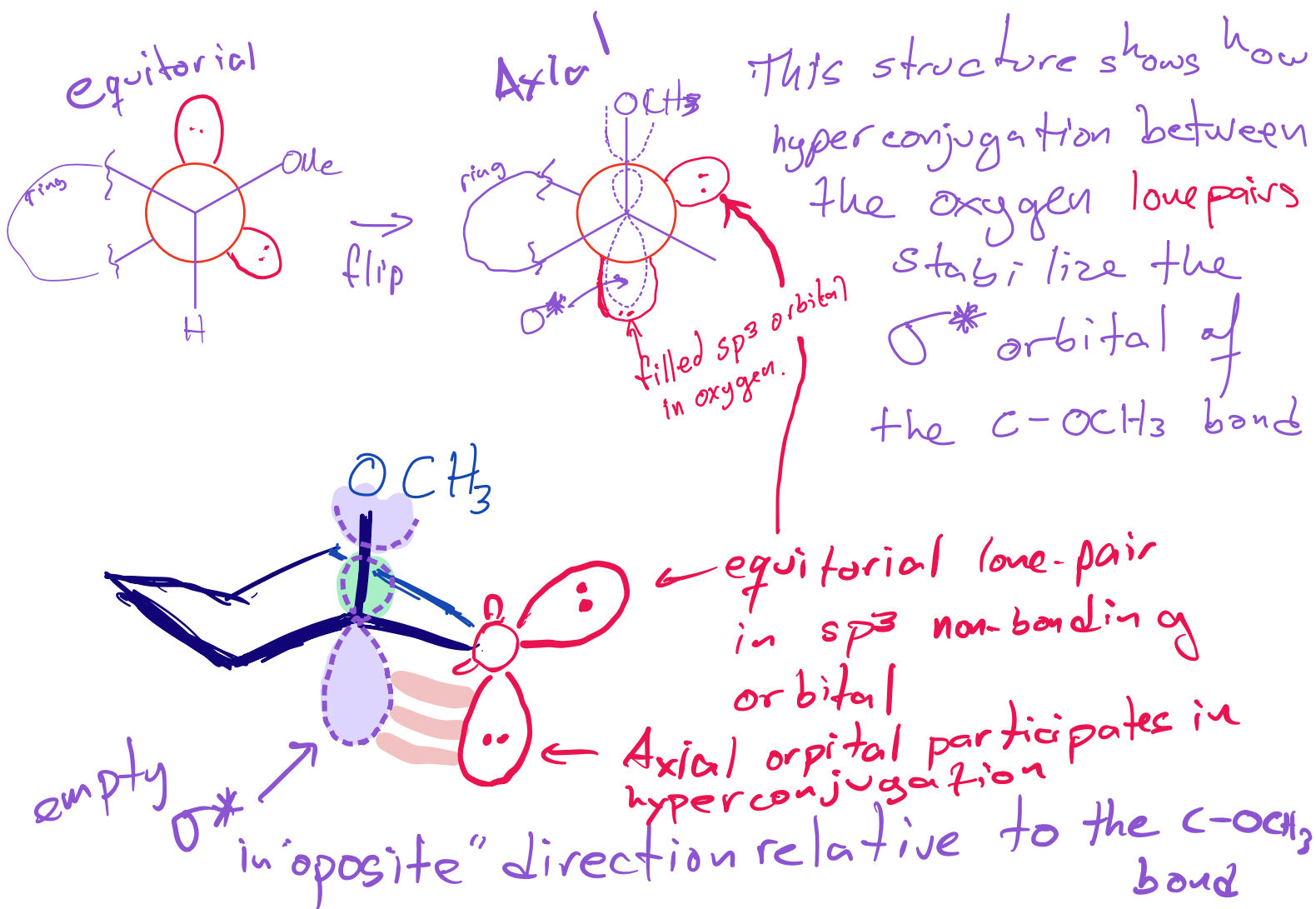
The equatorial conformer is preferred in methoxycyclohexane (**1**)



However, the axial conformer is preferred in compound **2**.



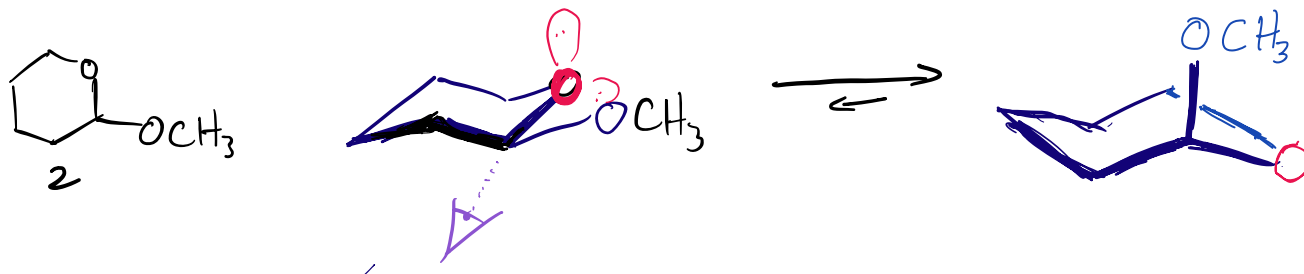
Provide an explanation for why compound **2** prefers the axial position:
when drawing the Newman projection viewed through the C-O bond, the following structures are obtained:



The equatorial conformer is preferred in methoxycyclohexane (**1**)



However, the axial conformer is preferred in compound **2**.



Provide an explanation for why compound **2** prefers the axial position:
(Hint: draw a Newman projection as viewed through the C-O bond for both structures)