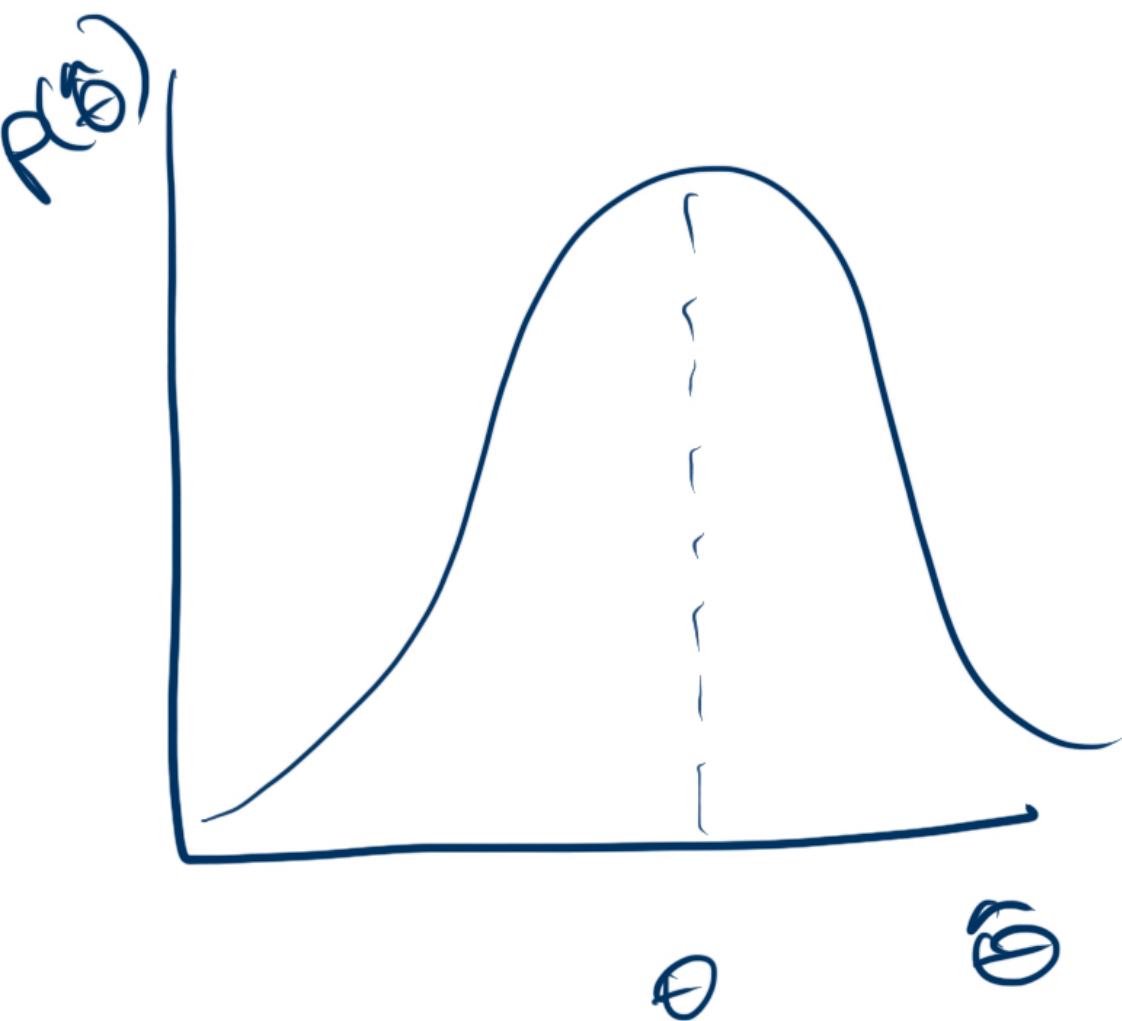


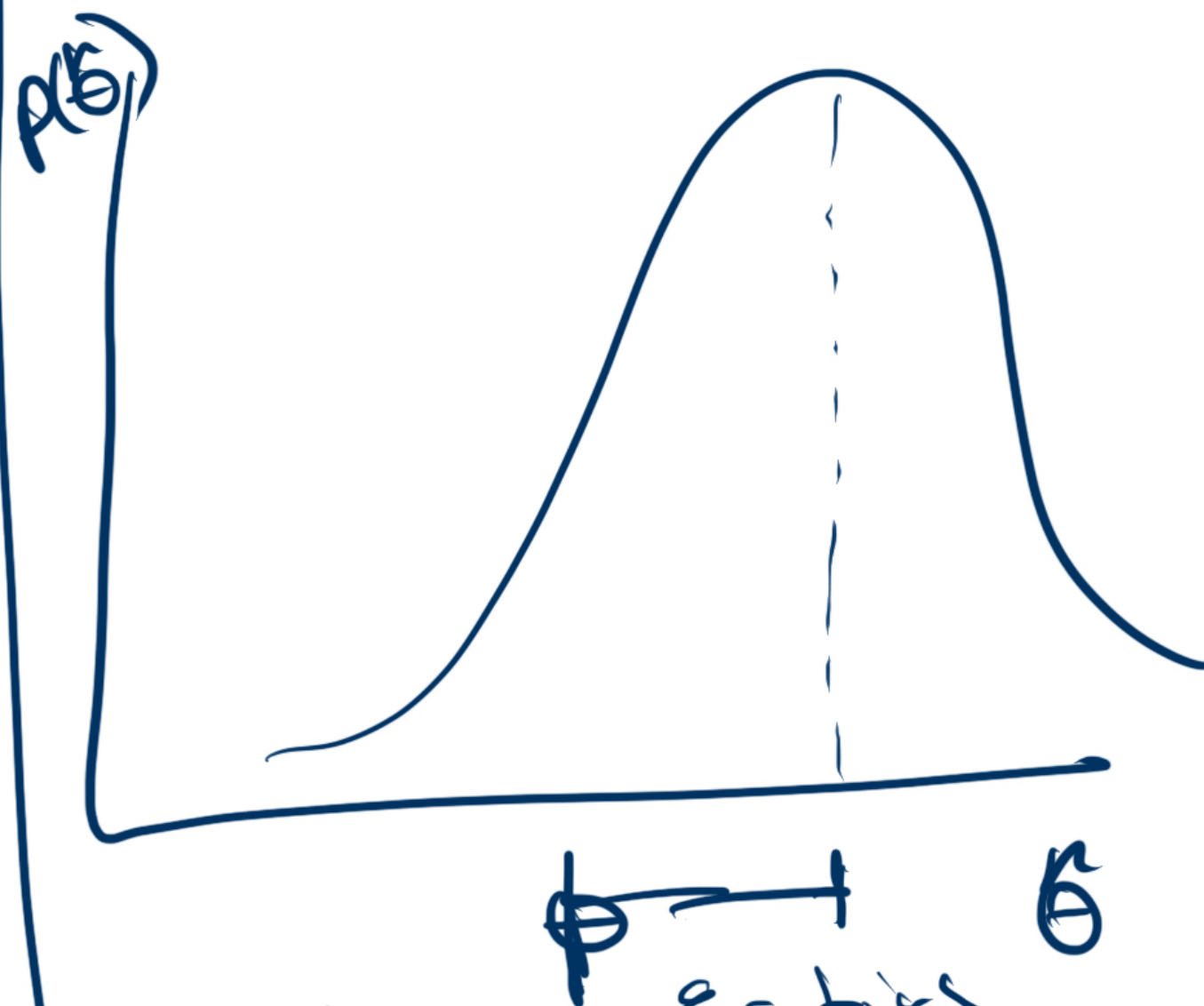
Unbiased
 $E[\hat{\theta}] = \theta$



- for all kinds of estim, we will see a normal curve

Biased

$$E[\hat{\theta}] \neq \theta$$



- The ϵ between $E[\hat{\theta}]$ and θ is bias.