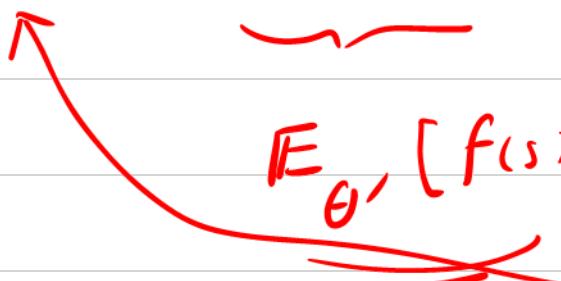


$$E_{\theta}[f(s)] = \sum_s f(s) P_{\theta}(s) = \sum_s f(s) [P_{\theta} + P_{\theta} - P_{\theta}]$$

$$= \sum f(s) P_{\theta'} + \sum f(s) [P_{\theta} - P_{\theta'}]$$

$$\leq \sum f(s) P_{\theta'} + \sum |f(s)| |P_{\theta} - P_{\theta'}|$$

$$\leq \sum f(s) P_{\theta'} + \max_s |f(s)| \sum |P_{\theta} - P_{\theta'}|$$


 $E_{\theta'}[f(s)] + \max_s |f(s)| \cdot |P_{\theta} - P_{\theta'}|$