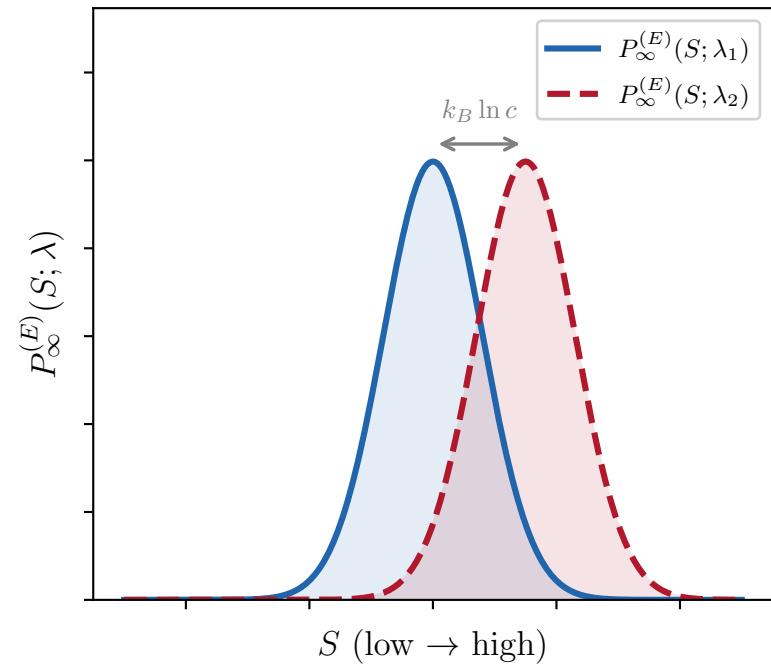**(a)** Translation only (common scaling)

(b) Structural change (constraint-reshaped)

(a) Legend:
$P_\infty^{(E)}(S; \lambda_1)$
$P_\infty^{(E)}(S; \lambda_2)$

$k_B \ln c$

$P_\infty^{(E)}(S; \lambda)$

S (low $\rightarrow$ high)

(b) Legend:
$P_\infty^{(E)}(S; \lambda_1)$
$P_\infty^{(E)}(S; \lambda_2)$

$S_{\max}$ (unconstrained)

(high S peak lower)

$P_\infty^{(E)}(S; \lambda)$

S (low $\rightarrow$ high)