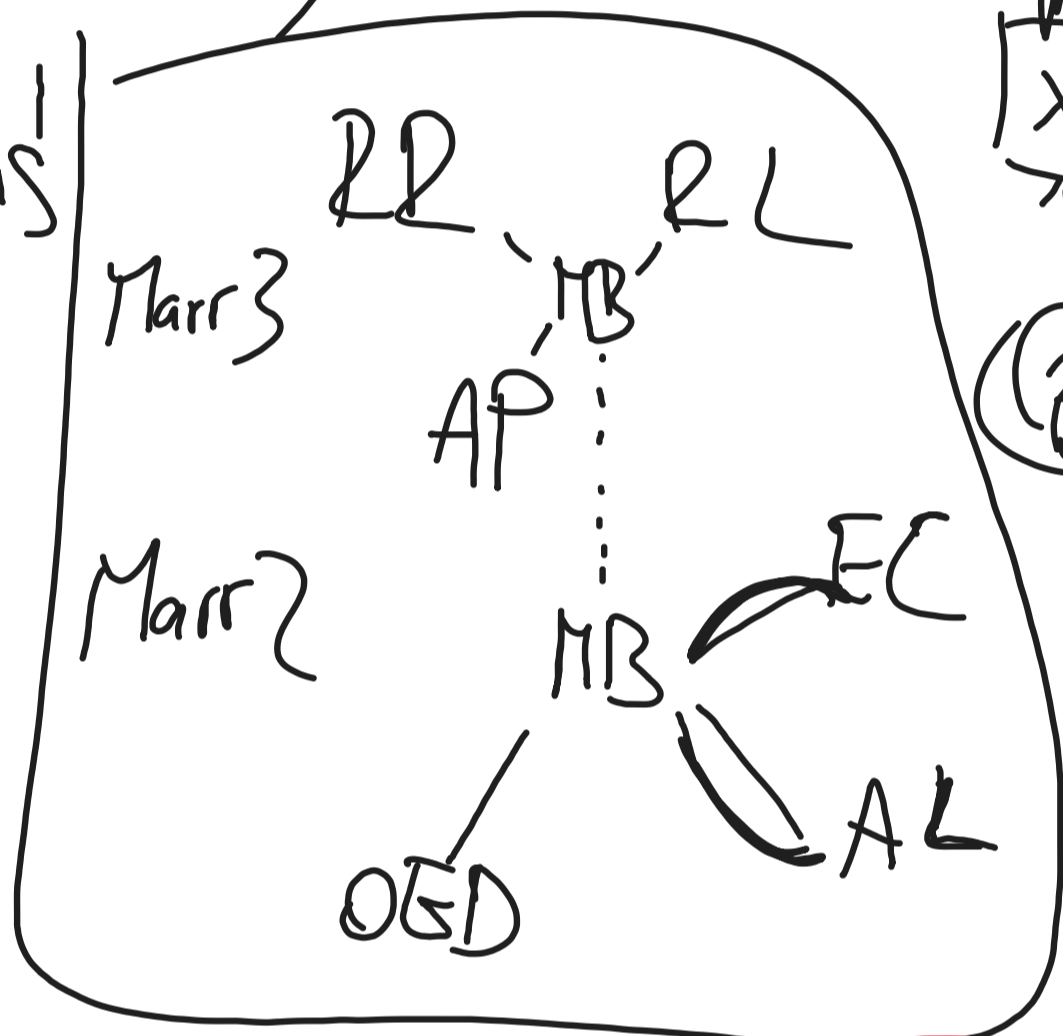


FRAME PROBLEM  
RELEVANCE

$$p^*(\theta) = \underset{p(\theta)}{\operatorname{argmax}} \mathbb{E} [I(\theta, X_1 \dots N)]$$

Resource Rat. (RR)  
RL  
Autopoiesis



$$\underset{p(x|\theta)}{\operatorname{argmax}}$$

Efficient

$$\underset{X_{1:N}}{\operatorname{argmax}}$$

coding  
Active &  
learning

$$\underset{N, p(x|\theta)}{\operatorname{argmax}}$$

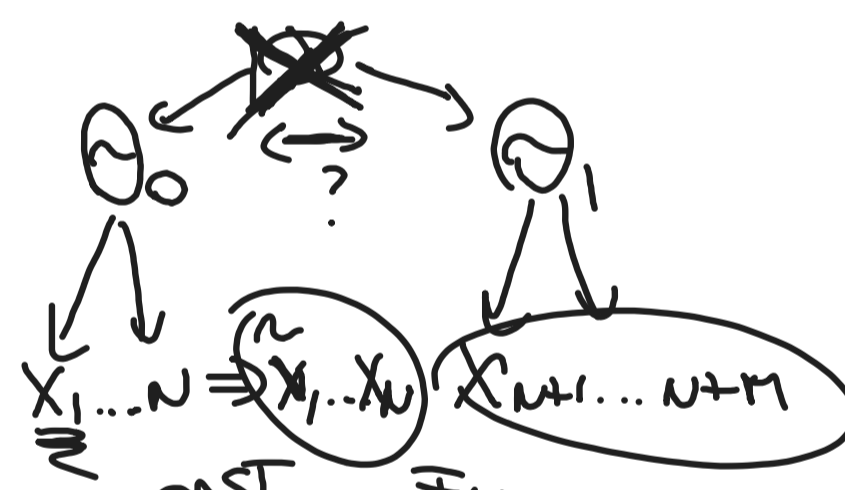
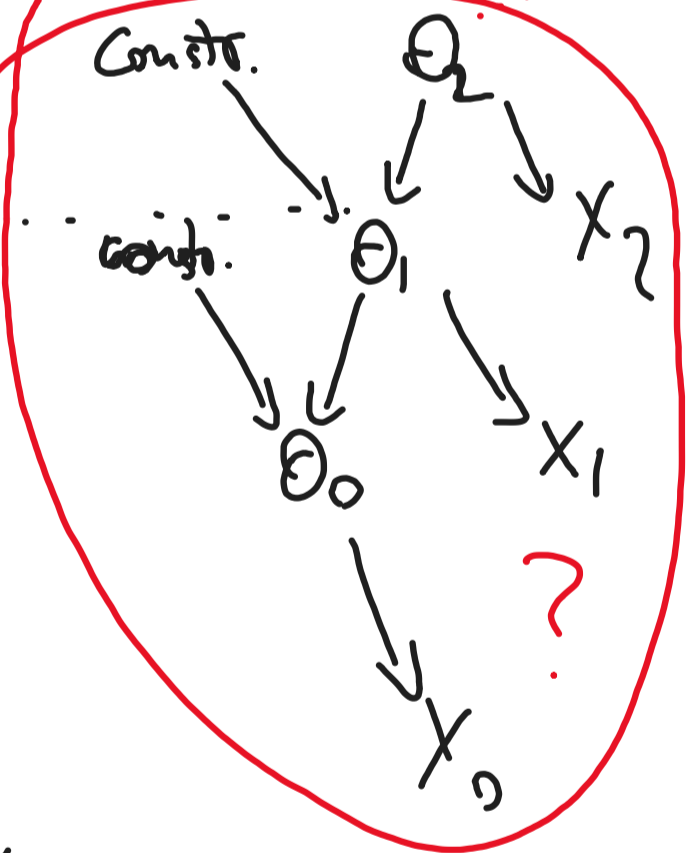
Optimal  
Exp.

$$\underset{p(x|\theta) p(\theta)}{\operatorname{argmax}}$$

Design

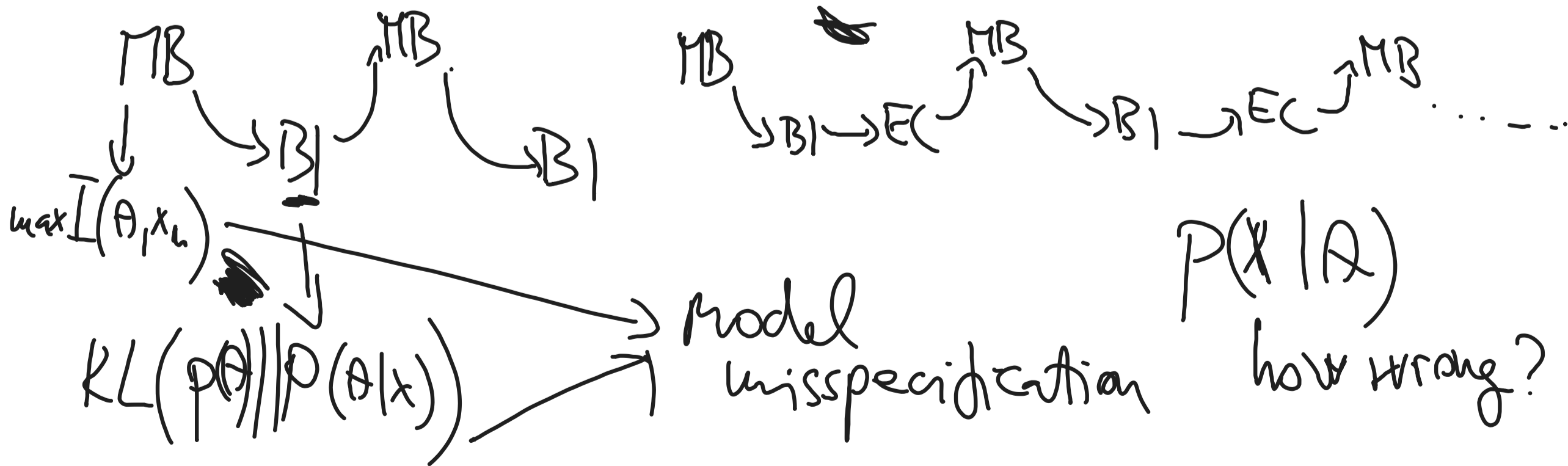
$$\begin{aligned} &\rightarrow p^*(\theta) \rightarrow p(x_{1:N}) \rightarrow p_i^*(\theta) \\ &X_1 \dots N \quad X_{n+1} \dots N \quad 2 \quad 200 \end{aligned}$$

decision



$$p(\theta | x_{1:N}) \xrightarrow{\text{Sample } n} X_1 \dots N$$

$$\mathbb{E} [I(p(\theta | x_{1:N}) | p_i^*(\theta))] \quad p(\theta | x_n)$$



Model misspecification

$$p(x | \lambda)$$

how wrong?  $\rightarrow EC$