

Dog







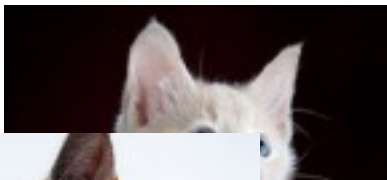






Bird

Cat











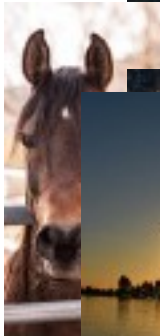


Dog

Fish



Horse





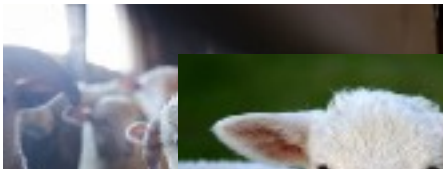






Rabbit

Sheep



1

2

3

4

5

6

7

8

9

0

+



Bird

Dog

Rabbit



L ~ T



$$Q \sim L$$


Rabbit



Bird









Relation Module



















Embedding Module

  : 0.9

  : 0.2

  : 0.1

  : 0.1

  : 0.3

  : 0.8

S

~

L

$$f_{\varphi}(image)$$

$$g_{\varphi}(e_1, e_2)$$

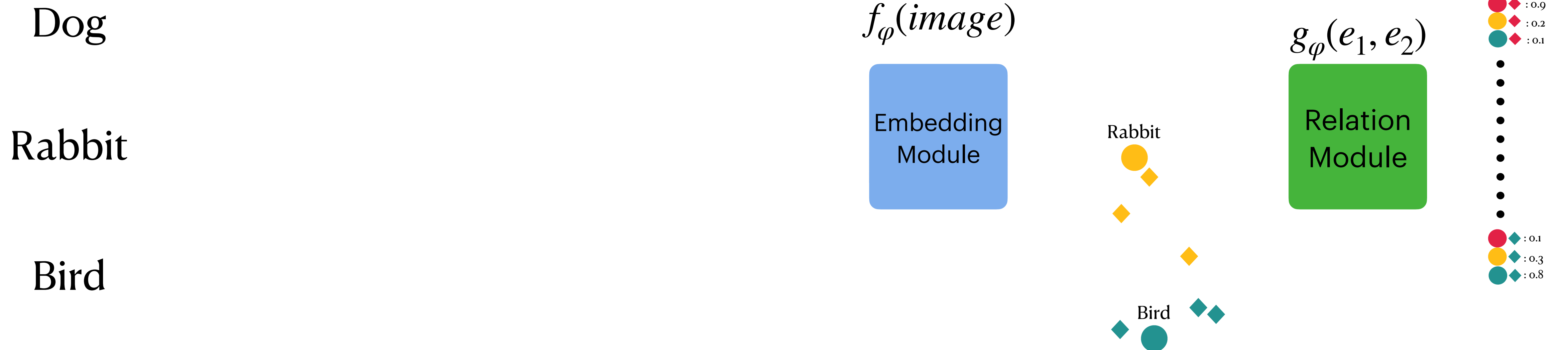
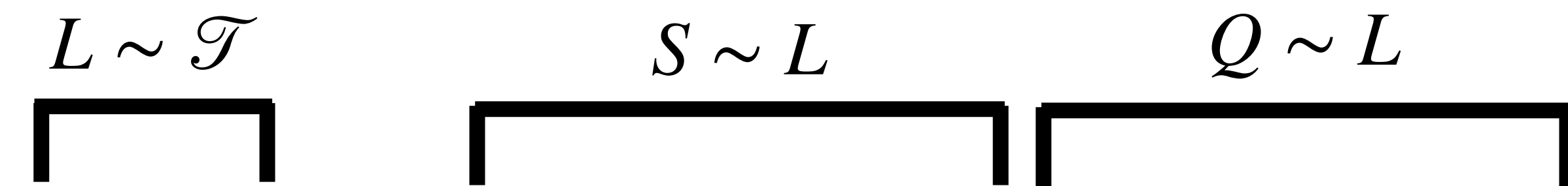
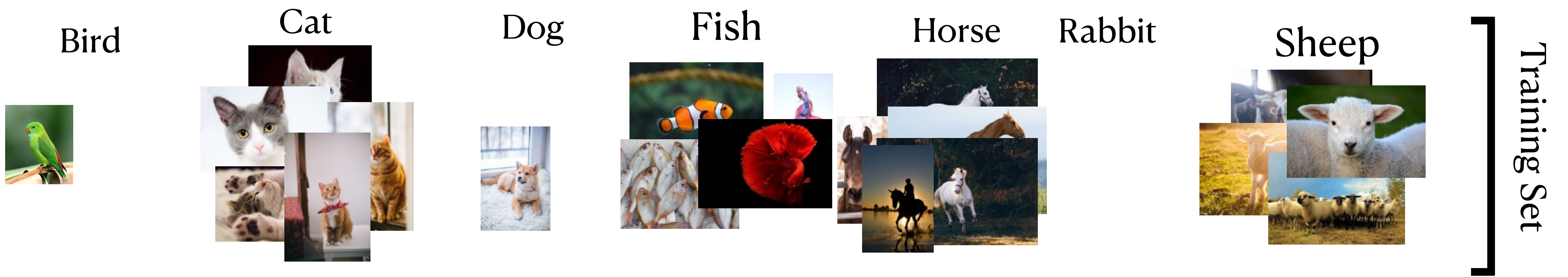
$$\varphi, \phi \leftarrow \arg \min_{\varphi, \phi} \mathbb{E}_{L \sim \mathcal{T}} \left[\mathbb{E}_{S \sim L, Q \sim L} \left[\mathcal{L}_{\text{episode}}(S, Q) \right] \right]$$

$$\mathcal{L}_{\text{episode}}(S, Q) = \sum_{i=1}^m \sum_{j=1}^n \left(r_{i,j} - 1(y_i == y_j) \right)^2$$



rij





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Relation Nets One-Shot Testing

