



Dog









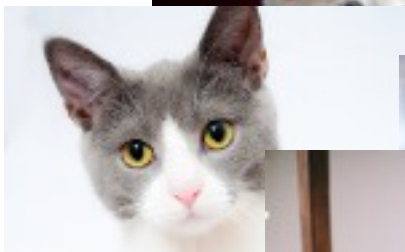
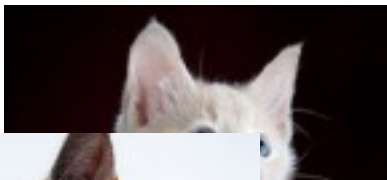




**Bird**



# Cat













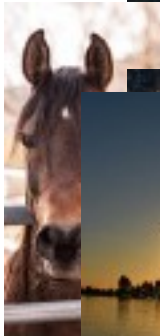
**Dog**

# Fish





# Horse





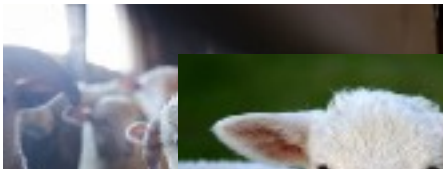






Rabbit

# 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

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

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

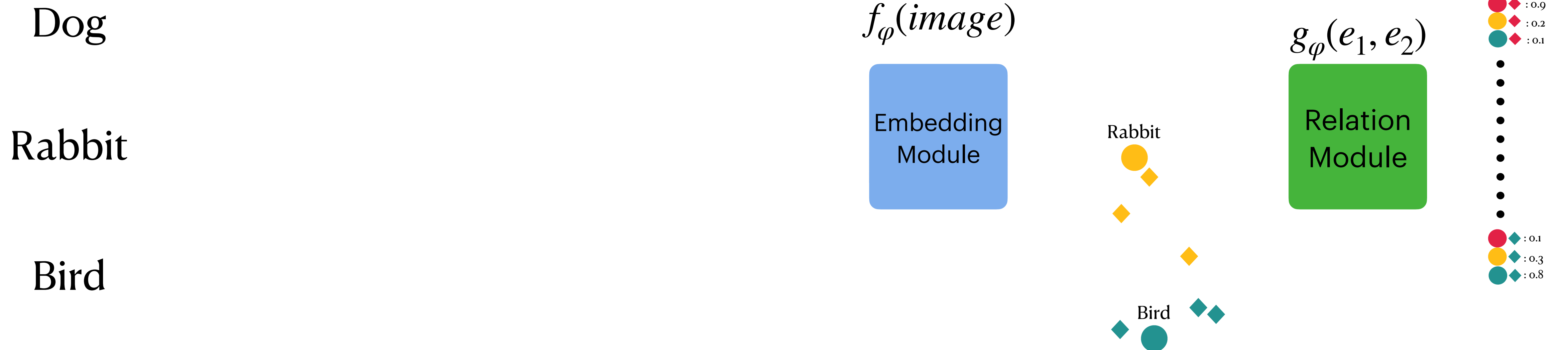
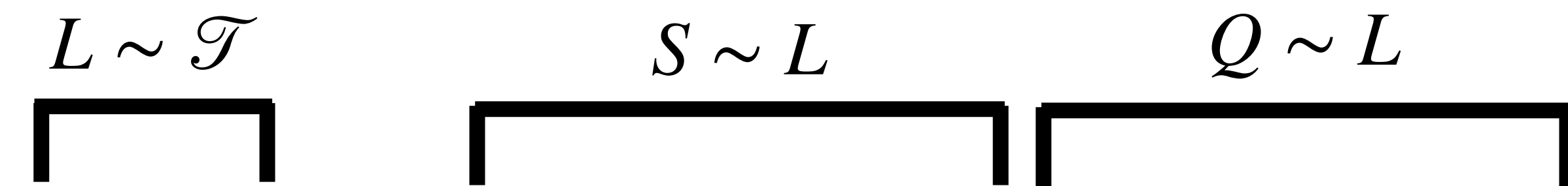
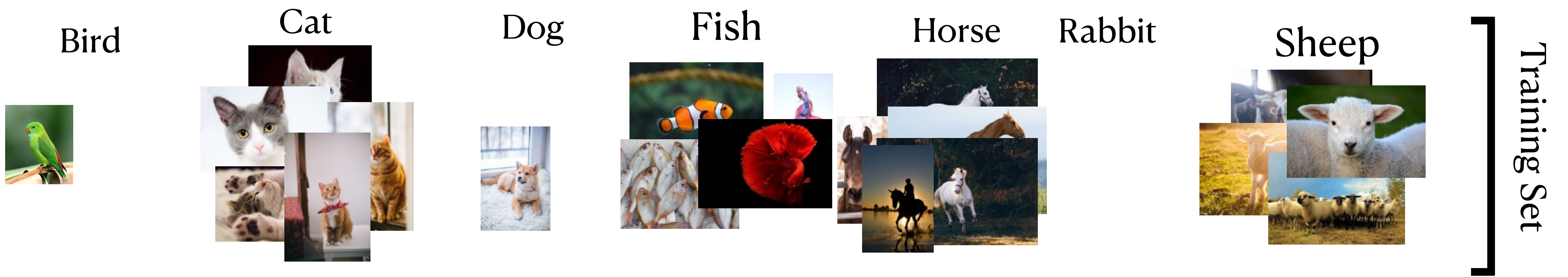
$$\varphi, \phi \leftarrow \arg \min_{\varphi, \phi} \mathbb{E}_{L \sim \mathcal{T}} \left[ \mathbb{E}_{S \sim L, Q \sim L} \left[ \mathcal{L}_{\text{episode}}(S, Q) \right] \right]$$

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



*rij*





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# Relation Nets One-Shot Testing

