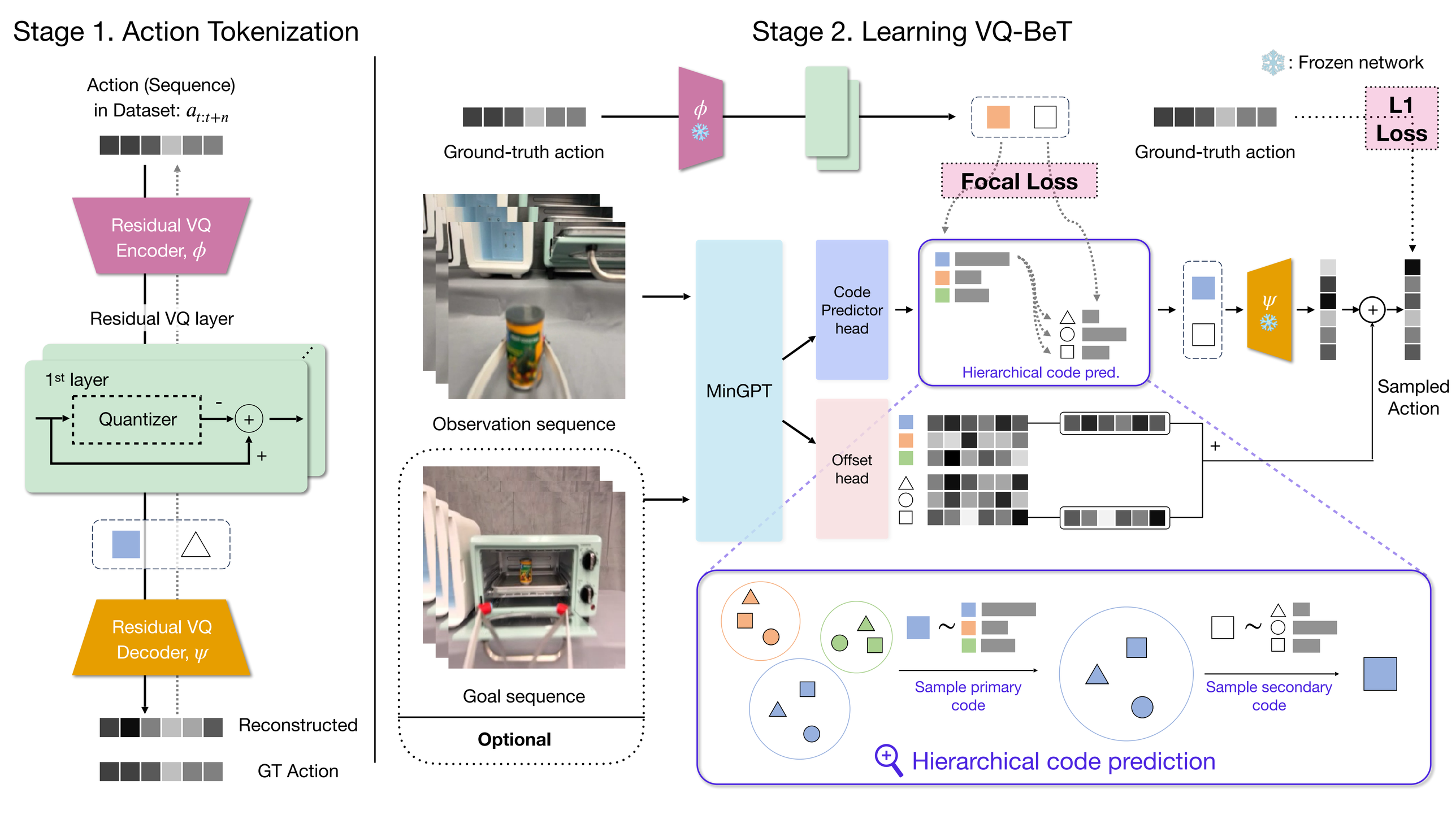
Stage 1. Action Tokenization
Action (Sequence)
in Dataset: $a_{t:t+n}$
Residual VQ
Encoder, ϕ
Residual VQ layer
1st layer
Quantizer
-
+
+
Residual VQ
Decoder, ψ
Reconstructed
GT Action
Stage 2. Learning VQ-BeT
: Frozen network
Ground-truth action
ϕ
Ground-truth action
L1
Loss
Focal Loss
Observation sequence
MinGPT
Code
Predictor
head
Hierarchical code pred.
ψ
Sampled
Action
Offset
head
+
Goal sequence
Optional
Sample primary
code
Sample secondary
code
Hierarchical code prediction