Memory vs Learning Separation
Operational Distinctions

1. Definitions

Definition 1.1 (Memory). *Persistence of information influencing future behavior.*

Definition 1.2 (Learning). *Modification of behavioral dispositions based on experience.*

2. Dissociation

Memory without Learning: Tape recorder (storage, no modification)
Learning without Memory: Procedural skills (change, no declarative access)

3. Mapping to CM

Metric	Memory	Learning
F1_IG	Persistence	Integration
F4_meta_lead	Predictive	Anticipation
F4_recovery	Trace	Adaptation

4. γ Effects

- High γ: Both integrated

- Low γ: Memory persists, learning impaired

- $\gamma = 0$: Neither effective