

External Recognition Conditions

For Memory and Learning Attribution

1. The Problem

Attributing memory/learning requires observable criteria without circularity.

2. Conditions

E1 (Persistence): State at t_2 depends on input at t_1 ($t_2 > t_1$)

E2 (Modulation): Past exposure modulates current response

E3 (Specificity): Modulation is content-specific

E4 (Capacity): Finite storage/learning capacity

3. Mapping to CM

Condition	Metric	Stage
E1	F1_IG	A (Onset)
E2	F4_meta_lead	B (Robust)
E3	Selective collapse	C (Mechanism)
E4	γ -sensitivity	All

4. Non-Circular Verification

All conditions use:

- Input-output relationships
- Temporal dependencies
- Behavioral measurements

No introspective access required.