Consciousness-Absent Protocol with Operational Consciousness Indicators

CAP+OCI v6 — Technical Manuscript

Version 0.3.6

Abstract

This document presents CAP+OCI v6, a falsifiable protocol for detecting operationally defined "Consciousness Modality" (CM) in computational agents. The protocol defines three-stage claims (CLAIM_A through CLAIM_C) based on behavioral indicators rather than subjective experience reports.

1. Introduction

The challenge of detecting consciousness in artificial systems requires operational definitions that avoid circular reasoning. CAP+OCI addresses this by defining **Consciousness Modality (CM)** through measurable behavioral indicators.

2. Claim Definitions

2.1 CLAIM_A (Onset Existence)

- Onset crossing exists on γ-grid
- $\max_\gamma(\text{onset\_rate}) \geq P_{\text{PASS}} = 0.30$
- $\min_\gamma(\text{inadequacy}) \leq 0.10$

2.2 CLAIM_B (Weak Robustness)

- CLAIM_A satisfied
- $\exists\gamma$: robust(OR) PASS at Wilson LCB $\geq R_{\text{PASS}} = 0.15$

2.3 CLAIM_B+ (Strong Robustness)

- CLAIM_A satisfied
- $\exists\gamma$: strong(AND) PASS at Wilson LCB $\geq R_{\text{STRONG}} = 0.05$

2.4 CLAIM_C (Mechanistic Specificity)

- **CLAIM_B satisfied** AND selective collapse holds

  Interpretation: CLAIM_C provides additional mechanistic evidence when CLAIM_B is satisfied.

3. Methods

- Seeds: $N = 100$ (CSPRNG-generated)
- γ-grid: $\{1.00, 0.75, 0.50, 0.25, 0.00\}$
- Thresholds: $\theta_{\text{lead}} = \theta_{\text{rec}} = 0.0$
- Confidence: Wilson LCB with $\alpha = 0.10$

4. Results

Both environments satisfy **CLAIM_A**, **CLAIM_B**, **CLAIM_B+**, **CLAIM_C**.

5. Conclusion

claim_ready = **True** indicates cross-environment robustness.