INDEPENDENT RESEARCH PROTOTYPE

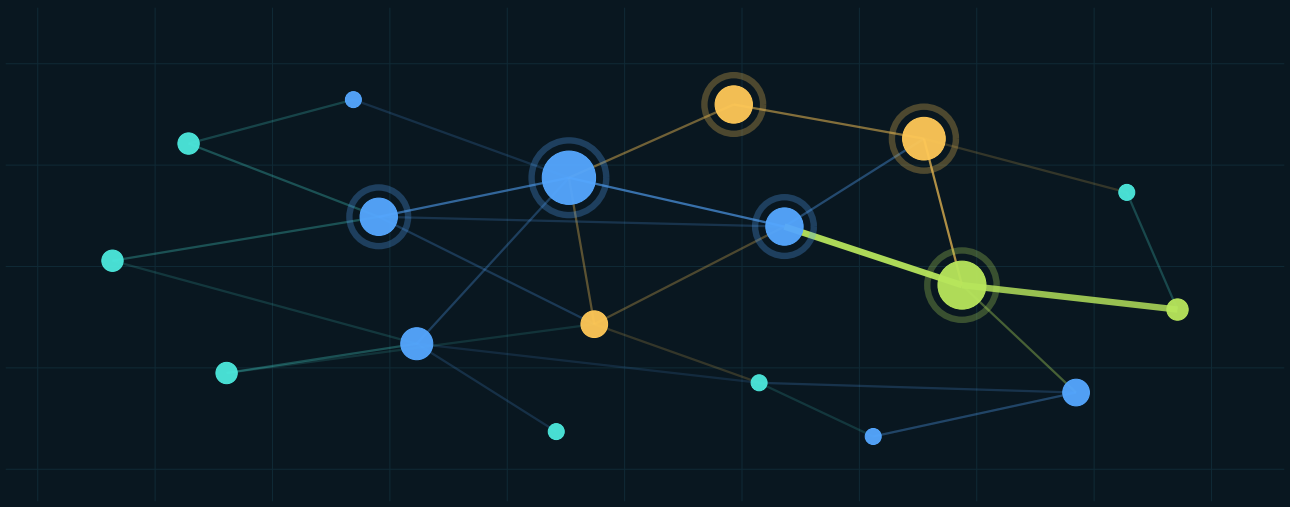
# A System That Learns From Experience

An independent research program exploring whether a compact system can improve from experience, retain useful discoveries, and apply them in unfamiliar situations. Different pilots use different levels of input preparation; every result is reported with its boundary.

NO ANSWER TABLES | HELD-OUT TESTS | CAUSAL LESIONS

AN ADAPTIVE SYSTEM SHAPED BY EXPERIENCE

illustration - not an architecture diagram



**A public visual metaphor. The implementation remains confidential.**

## 3 / 3

### INDEPENDENT WORLDS

The strongest held-out composition result reproduced across three separately randomized environments.

## 100%

### NOVEL INFERENCE

The full system answered unseen multi-step queries in every registered run of v0.11.26.

## 0

### UNSUPPORTED ANSWERS

No unsupported direct answer survived in the validated three-world composition test.

### PUBLIC SCOPE

This brief contains only observable behavior, controlled comparisons, limitations, and the long-term research direction. All implementation details and source code are intentionally omitted.

PUBLIC BLACK-BOX SUMMARY

# What has been observed from the outside

The same research direction has been tested with several kinds of input. This page describes only externally visible capabilities, not the internal learning process.

EVIDENCE SPANS DIFFERENT KINDS OF EXPERIENCE

SYMBOLS | CONTINUOUS WORLDS | TEXT | FORMAL TASKS

## 01 Learn during one lifetime

Later behavior reflects information acquired after the run began, rather than only preloaded responses.

## 02 Use past experience

Earlier events can improve a later decision when the current observation alone is insufficient.

## 03 Respond to context

The same external signal can lead to different learned behavior in different situations.

## 04 Change after new evidence

Previously learned behavior can change when later experience contradicts it.

## 05 Produce novel inference

The system can answer selected held-out questions that were never stored as direct answers.

## 06 Transfer within a task family

Several frozen tests succeeded on combinations or identities excluded from training.

**CONFIDENTIAL BOUNDARY**

This brief contains only high-level inputs, measured outputs, controls, and limitations. Every implementation detail is confidential.

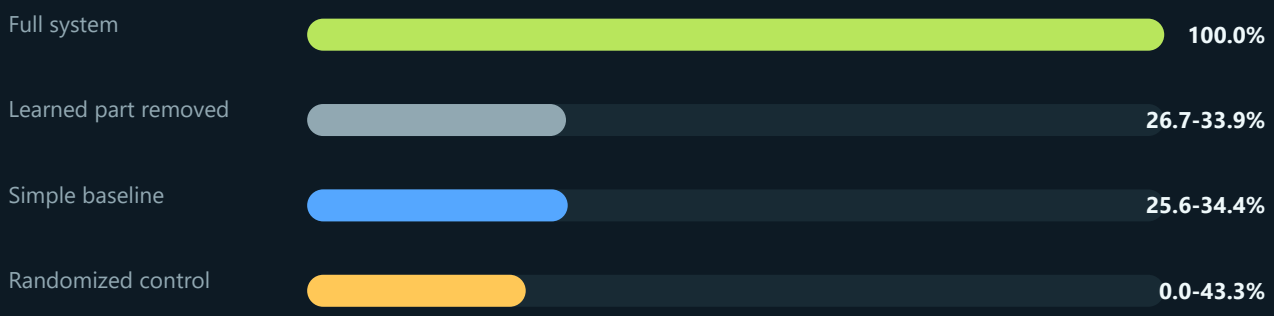
EVIDENCE ACROSS ENVIRONMENTS

# Claims are tested by removing what was learned

A result counts only when the active system beats simpler controls and removing the learned contribution changes the matching inference or behavior.

## VALIDATED HELD-OUT COMPOSITION - V0.11.26

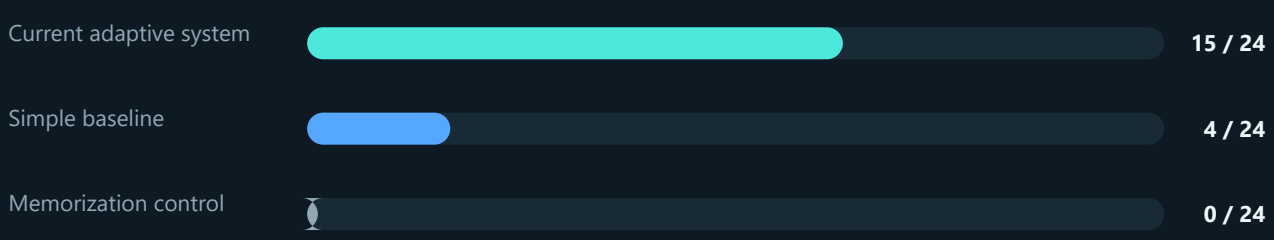
Three independent worlds. The direct source-to-result relation was never presented. Evaluation used 180 new noisy queries per world.




**Causal removal: the selected advantage disappeared while unrelated results remained.**

## BROAD AUTHENTIC GRAMMAR STRESS TEST - V0.11.27.25

Six question types, 42 examples, and 24 questions from completely excluded sentences. The pre-registered success criterion was not met.




Same 15/24 on 3/3 seeds; semantic oracle 24/24. Status: inconclusive, preserved without retuning.

## EMBODIED RESOURCE-AND-RISK WORLD - V0.11.24-LIVE

**0**
PRELOADED STRATEGIES

**3**
DIFFERENT LIFETIME STRATEGIES

**CAUSAL**
BEHAVIOR CHANGED UNDER LESION

Across long manual lives, the same starting system developed cautious, risky, and aggressive resource-seeking behavior. Removing the learned contribution changed decisions and outcomes.

PUBLIC RESULTS - TESTED SEPARATELY

# Capabilities demonstrated in controlled tests

The project does not yet have one universal learner. The results below were demonstrated in separate controlled pilots; all implementation details remain confidential.

01 **Perception under noise** — PARTIAL

Recurring inputs were recognized despite controlled variation.

02 **Memory over time** — CAUSAL

Past experience improved later decisions when the present input was insufficient.

03 **Context sensitivity** — VALIDATED

The same input produced different learned responses in different situations.

04 **Relational knowledge** — VALIDATED

Learned information supported relations, not only isolated matches.

05 **Novel combination** — VALIDATED

The system produced selected unseen multi-step answers.

06 **Behavioral adaptation** — PARTIAL

The same starting system developed distinct lifetime strategies.

PAST EXPERIENCE CHANGED RESULTS - V0.9

| 96.0% | 47.9% |
|---|---|
| FULL SYSTEM | LEARNED PART REMOVED |

Removing only the learned contribution returned performance close to chance.

HELD-OUT CONTEXT TRANSFER - V0.11.10

| 100% | 842 |
|---|---|
| HELD-OUT CASES | EVALUATED EVENTS |

The system applied prior experience successfully in new controlled test cases.

INTEGRATED LIFETIME TEST - V0.11.20

| 6 / 6 | 0 |
|---|---|
| TEST SITUATIONS | FALSE POSITIVES |

In controlled worlds, learned changes altered later choices and outcomes.

THE HONEST CLAIM

These capabilities were demonstrated in separate controlled pilots. They are not yet one universal self-learning model.

LONG-TERM DIRECTION

# Toward open-ended learning

**Do not hand the system a finished answer. Let it learn from experience and prove that the result transfers.**

The next stage tests the same system on broader everyday descriptions and unseen situations.

RESEARCH ROADMAP

1. **Broader everyday tasks**

   Use the same system across more varied events and descriptions.

2. **Natural text variation**

   Preserve useful meaning across different word orders and surface forms.

3. **One continuous lifetime**

   Combine perception, text, decisions, and later outcomes in one persistent run.

4. **Frozen transfer**

   Move the unchanged system into an unfamiliar domain before returning to full books and science.

THE NEXT REGISTERED PROOF

## The next stage must pass all three gates.

**01 REPRODUCIBLE**

The result repeats across independent runs.

**02 HELD OUT**

It succeeds in situations excluded from training.

**03 CAUSAL**

Removing the learned part removes the advantage.

Do not add a full book, dictionary, or Russian parser before this gate.

Return to unrestricted text only after the result is causal and reproducible.

AMBITIOUS EXPERIMENTS - INTERPRETED CAREFULLY

# Text, documents, and chemistry exposed the gap

These probes did not prove general understanding. They showed useful behavior on prepared inputs and exposed how much remains before unrestricted learning.

## 01 Text tasks

**WHAT WORKED**

A controlled text test reached 36/36. On broader authentic text, the adaptive system reached 15/24; a simple baseline reached 4/24.

**HONEST BOUNDARY**

Exact words and cues were supplied; unrestricted understanding remains

## 02 Documents

**WHAT WORKED**

One-pass controlled documents supported multi-step answers that were not present as direct source-to-result pairs.

**HONEST BOUNDARY**

Relations and boundaries were cleaner than natural prose.

## 03 Chemistry

**WHAT WORKED**

Known reactions were composed into unseen balanced equations, and the system transferred to held-out reaction networks.

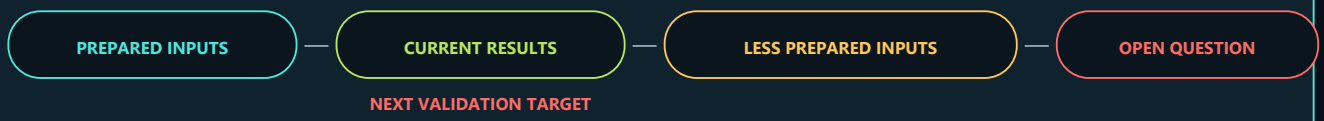
**HONEST BOUNDARY**

Formulas, goals, and valid reactions were supplied; this was not discovery.

WHAT THE EXPERIMENTS IMPLY

## The main bottleneck appears before high-level tasks.

When inputs are already clear, the system can combine learned information. The open question is whether one unchanged learner can reach comparable results from less prepared experience.




THE POTENTIAL

## One learner that improves from experience and carries useful knowledge into new domains.

If future tests succeed, the same system could move from everyday experience to text, scientific material, and unfamiliar environments with far less task-specific engineering.

**NOT YET CLAIMED: unrestricted text understanding, general intelligence, or scientific discovery.**

OPEN TO CONVERSATIONS

**Investment. Research collaboration. Senior technical roles.**

CONTACT VIA X / DM