GOT-V1-2b-0

0. Part 2b: Prelude

Knowledge, Intelligence, and Observation

Reader introduction • Non-canonical. The Part 2b papers govern technical definitions, arguments and evidence.

1. If This Were Possible

What if the words carrying the greatest weight in our decisions also carried an account of what grounds them?

Knowledge, intelligence and observation are culturally load-bearing terms. They help determine whose account we accept, which capabilities we trust and what we treat as evidence. The words defined in this series carry such weight because other claims and decisions are built upon them.

Yet a word can retain that authority after the relation supporting it becomes difficult to recover. This is the problem of the floating noun: we recognise the label, but cannot adequately account for what it names. When that noun bears weight, the weakness travels beyond language into the judgements and actions it supports.

Part 2b asks whether three of these culturally overburdened terms can be given distinct, testable functions within a common empirical architecture.

2. Why This Is Difficult

The consequence is a mismatch between cultural authority and accounting potential. Calling a system intelligent may encourage reliance without identifying which distinction it applies. Calling a record knowledge may conceal whether it can be consulted or whether it is accurate. Calling a claim observed may leave its registration path unexamined. The noun can carry a conclusion while concealing the work needed to justify it.

Language must compress. We cannot reconstruct every history whenever we speak. But where a term supports consequential reliance, we need a way back to the relation, its evidence and its limits. Otherwise, inherited ambiguity and error can pass into later claims without becoming visible.

Different disciplines have earned richer, more specific uses of these words. A mutual language must make their underlying relations comparable while preserving those internal distinctions. Shared vocabulary alone cannot do this accounting.

3. What We Propose

General Organisation Theory (GOT) and The Epistemic Method (TEM) provide a framework for grounding claims and accounting for their support. The approach connects a term to a physically realised relation: identify the distinction, locate where it does work, recover the relevant history and test the claimed dependence. Unresolved conditions remain visible for correction.

Part 2b begins the demonstration with three culturally overburdened terms, giving each a delineating function. Knowledge concerns a registered distinction retained as an identifiable, available record. Intelligence concerns the application of a distinction through organisation that changes downstream trajectory selection. Observation concerns bounded registration of available differences into retained records through a particular interface and regime.

Their non-trivial forms share one functional basis: Non-Trivial Computation, or NTC. The system's organisation makes what happens next depend on a distinction. Retained knowledge doing work, intelligence in application and observation through an operative record are facets of that dependence, viewed through different functions and times. The facets can overlap; they are not compulsory sequential stages.

These descriptions are substrate agnostic: the same relational requirements can be examined in different physical implementations. Attribution depends on empirical evidence and adequate tests of the relation. Its actual mechanism and limits must still be established in each case.

Grounded in common computational primitives, the three terms become composable building blocks. A result retained in one pathway can become consequential in another. This gives later accounts of higher complexity a shared language whose connections can be audited, while disciplinary meanings retain their further requirements.

4. What This Part Inherits

Part 1 supplies the causal foundation: NTC and the discipline of identifying where a distinction does work, then testing whether the downstream outcome depends on it under comparable conditions. Part 2b inherits that test of causal contribution.

Part 2a supplies the informational architecture. It traces how physical contrast becomes available through boundaries and interfaces, how abstraction makes selected differences registerable, and how retained records can preserve relations to earlier events for later use. It grounds these pathways in physical history while keeping the conditions and limits of finite access explicit.

Part 2b inherits those primitives, pathways and empirical requirements. Its contribution is to delineate the functions named by knowledge, intelligence and observation, establishing what each attribution requires. The substrate-agnostic architecture gives these terms common ground; their distinct conditions make them useful building blocks for later accounts of more complex organisation.

5. Why This Part Has Its Internal Sequence

On the Origin of Knowledge establishes retained distinction and separates record presence, grounded consultability and realised use. It makes historical availability precise without making every record true.

On the Origin of Intelligence turns to application. It separates the production of a distinction from its present use, showing how earlier work can be reused without being performed again.

On the Origin of Observation examines the bounded registration that produces records and the stronger conditions under which those records become operative for an observer.

The Limits of Observation asks what registration necessarily selects and omits. Abstraction makes finite observation possible; error arises when the compression fails to preserve a relation that matters.

The Scale of Observation examines whether a relation remains comparable at the scale claimed. A familiar label cannot by itself carry a finding from one scale or domain into another.

The Operational Envelope of Observation asks how reliably an established observation process works across its range, load and changing conditions. Together, the six papers move from grounded terms to the limits under which their use remains defensible.

6. What You Need to Grant – and What You Do Not

The invitation is to examine whether these operational relations can be identified and tested across different physical implementations. Substrate agnosticism puts the evidential burden on the realised relation in each system. It does not make every record active computation, every useful object intelligent, or every interaction observation. Immediate application can also occur without a durable prior record.

Nor must a discipline surrender its richer meanings. The series' minimal knowledge can include an erroneous retained record; a field that requires truth and justification still has those further requirements to establish. The common vocabulary offers a bridge between domains while leaving their internal distinctions intact. A shared foundation does not make their claims interchangeable.

7. Where to Attack It

Begin at a primitive scale. Consider a proposed molecular case: a chemical cue is claimed to produce a retained state that controls a later reaction pathway. Does the mechanism actually register two distinguishable cue alternatives, and do its resulting states remain identifiable over the claimed interval? If both alternatives leave indistinguishable states, or the states decay before the claimed use, the retained-distinction claim fails under those conditions.

Then attack causal dependence. After removing the cue, vary or reset the retained state while preserving comparable driving, component inventory, boundary conditions and noise. Does later reaction selection track that state? If the same selection survives an adequate reset or bypass, the claimed NTC through that retained record weakens. Disabling the entire reaction system would establish no such isolation.

Finally, attack the definitions themselves. Can the framework distinguish physical perturbation, retained registration and realised application without borrowing the analyst's interpretation? If these conditions cannot be discriminated, or the claimed processing occurs only in the measuring apparatus, attributing it to the molecular system would leave the nouns ungrounded. These are proposed tests, not reported results.

8. If the Architecture Holds

If these relations withstand testing, the opportunity extends beyond three definitions. Other load-bearing terms whose grounding remains uncertain could be approached by recovering the distinctions, histories and dependencies they compress. Each extension would need its own evidence. The wider prospect is an empirical, substrate-agnostic framework through which claims about increasingly complex systems remain open to testing and correction.

The stakes increase when language becomes a foundation for machine intelligence. Human language already carries inherited omissions, ambiguous categories and opportunities for error. Machine reuse can carry these limitations into further outputs and decisions. A term may become more consequential without its grounding becoming more secure.

GOT/TEM proposes a way to make that grounding accountable: trace what the words commit us to, test whether the relevant relations hold, and preserve the uncertainty that remains. The papers that follow begin with knowledge, intelligence and observation because so much of our reasoning already depends on them. Their definitions are an opening demonstration of the work required wherever language carries such weight.

If our language is not grounded, how can we expect machine intelligence based on language to be accurate?

Canonical source note

Canonical basis: the six Part 2b Issue 1 papers—On the Origin of Knowledge (2), On the Origin of Intelligence (3), On the Origin of Observation (4), The Limits of Observation (4a), The Scale of Observation (4b), and The Operational Envelope of Observation (4c). Their definitions, qualifications and evidence govern this introduction.

Prepared under GOT-SD-PRELUDE-01, Issue 2, with the Part 2 Issue 1 concept map, glossary, guardrail register and bibliography/relation register as secondary checks. The book supplies the load-bearing language, GOT/TEM accounting and human–machine framing; the issued Part 1 and Part 2a preludes supply the presentation precedent.