

The Non-Summable Magnitude: What the Meaning Layer Can Write That the Money-Form Cannot, and Why That Is Not a Larger Number (EA-SE-ASYM-01 v0.2, provisional)

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is too strong: inscribing money's grammar does not stop money settling, clearing or discharging. What follows is
summability is then native non-licensing rather than the non-existence of any operation whatever —
a distinction that matters, because a weighted index can be built over any two numbers by anyone with an afternoon
}

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Abstract

THE CONVERSE OF A SECTION THAT LEFT ITS CONVERSE UNSTATED. Substrate Sovereignty holds that a sovereign substrate cannot be fully audited from inside its own grammar, since a critique expressed only in that grammar is pre-translated into its terms. This paper states the converse, finds the obvious form wrong, and argues a narrower form with an observable signature. The obvious form — that a substrate able to inscribe another's grammar thereby holds jurisdiction over it — is too strong: inscribing money's grammar does not stop money settling, clearing or discharging. What follows is a claim about expressive capacity, and jurisdiction is derived from it rather than assumed.

THE PRIMITIVE IS A TYPED MAGNITUDE. A magnitude is not a number but a number together with the operations that preserve its meaning: a value and the set of operations its own grammar licenses without an additional commensuration contract. Non-summability is then native non-licensing rather than the non-existence of any operation whatever — a distinction that matters, because a weighted index can be built over any two numbers by anyone with an afternoon, and building one creates a new representation under a new contract rather than discovering that the magnitudes were natively summable. [...abridged for the catalogue; full description in this deposit's record]

Body

deposit_number: 1622 hex: 06B3 title: "The Non-Summable Magnitude: What the Meaning Layer Can Write That the Money-Form Cannot, and Why That Is Not a Larger Number (EA-SE-ASYM-01 v0.2, provisional)" creator: Sharks, Lee orcid: 0009-0000-1599-0703 date: 2026-09-16 content_type: Theoretical paper license: CC-BY-4.0 substrate: "Composed 2026-09-16 by Lee Sharks with TACHYON (Claude, Anthropic), operator-directed, from a line of argument developed in conversation. v0.2 repairs v0.1 on a reviewer report supplied by the operator, verified before adoption by checking each objection the report anticipates — restricted funds, segregated accounts, maturity classes, contingent claims and multiple currencies — and finding that all five dissolve the same way, with the prohibition carried by an attached qualifier

rather than by the amount. The battery figures are the deposited wave-1 run of #1616 as of this date.” version: v0.2 (provisional) related_ids: “#1617 (Substrate Sovereignty, whose §13 this states the converse of); #1620 (the first worked audit, which exhibits the demonstrated embedding); #1616 (the flattening battery, the exhibit); #1619 (the audit ledger and its score vector); #1618; #1621; #311 (the money-function test, whose five conditions this paper’s signature restates two of)” axn_schema_version: v2 protocol_version: alexanarch-deposit-protocol/v1 keywords: - non-summable magnitude - typed magnitude - native operation set - expressive embedding - strict expressive asymmetry - interpretive jurisdiction - bounded commensurability - general equivalence - restricted cash - exchange rate - flattening battery - score vector - monetary grammar - meaning layer - provisional deposit - Crimson Hexagonal Archive *** # The Non-Summable Magnitude: What the Meaning Layer Can Write That the Money-Form Cannot, and Why That Is Not a Larger Number (EA-SE-ASYM-01 v0.2, provisional)

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refusal of exchange is what money has no notation for. ‘We priced the unpriceable’ is the failure mode #1617 §20 and §31 were written against.”, “a price inscribes nothing”: “a price is a scalar; Θ inscribes and the price is its input. Read as a number gaining jurisdiction, the apparatus reads as a bigger number winning.”, “counterexamples are instances”: “restricted cash, segregated accounts, maturity classes, contingent claims and multiple currencies all carry their non-fungibility in an attached legal, contractual or accounting qualifier. That qualifier is doing what the meaning layer does, so every real instance of non-fungible money instantiates the asymmetry rather than defeating it.” }, “spxi:corrigenda”: [{ “target”: “this paper, v0.1”, “defect”: “claimed that every monetary quantity is summable by construction, and that no operation takes any two of the battery’s measures; both stronger than the evidence and both easily defeated — the first by restricted funds, the second by any constructed index”, “repair”: “the primitive is now a typed magnitude with a native operation set; non-summability is native non-licensing; the v0.1 falsifier is withdrawn as trivially satisfiable”, “status”: “applied in v0.2 before deposit” }], “spxi:falsifiers”: “§6. The central one: exhibit a monetary magnitude whose non-fungibility is NATIVE to the amount rather than supplied by an attached qualifier, while the object remains money and retains settlement capacity. Constructing a joint statistic over two battery measures explicitly does NOT falsify anything.”, “spxi:requires”: [“#1617”, “#1618”, “#1619”, “#1620”, “#1621”, “#1616”], “keywords”: [“non-summable magnitude”, “typed magnitude”, “native operation set”, “expressive embedding”, “strict expressive asymmetry”, “interpretive jurisdiction”, “bounded commensurability”, “general equivalence”, “flattening battery”, “score vector”, “monetary grammar”, “meaning layer”, “Crimson Hexagonal Archive”] }

0. The claim

Substrate Sovereignty §13 holds that a sovereign substrate cannot be fully audited from inside its own grammar, since a critique expressed only in that grammar is pre-translated into its terms. The section leaves its converse unstated. This paper states it, finds the obvious form wrong, and argues a narrower form that has an observable signature.

The obvious form — a substrate that can inscribe another’s grammar has jurisdiction over it — is too strong. Inscribing money’s grammar does not stop money settling, clearing or discharging. What follows is a claim about expressive capacity, and jurisdiction is a consequence that has to be derived rather than assumed.

The theorem:

**** $G_M \sqsubseteq_E G_\mu$ is demonstrated. $G_\mu \not\sqsubseteq_E G_M$ is conjectured false, with its falsifier specified.****

The signature:

The money-form cannot natively preserve a prohibition on the operations constitutive of monetary equivalence.

1. The primitive: a typed magnitude

A magnitude is not a number. It is a number together with the operations that preserve its meaning.

Write $\mathbf{x} = \langle \mathbf{v}, \Omega_{\mathbf{x}} \rangle$, where $\mathbf{v}$ is the value and $\Omega_{\mathbf{x}}$ is the set of operations licensed by $\mathbf{x}$'s own grammar *without an additional commensuration contract*. Call this **NativeOp_G(x)**.

For a same-denomination monetary amount:

$\Omega_{\mathbf{M}} \ni$ addition, aggregation, netting, comparison, transfer, discounting, settlement.

For DS as the battery emits it:

$\Omega_{\mathbf{DS}} \not\ni$ cross-item addition, and $\not\ni$ aggregation into a panel-level quantity — unless a new commensuration contract supplies it.

Two magnitudes are **non-summable in G** when addition is not in their joint native operation set:

$\text{non-summable}_{\mathbf{G}}(\mathbf{x}, \mathbf{y}) \iff + \notin \text{NativeOp}_{\mathbf{G}}(\mathbf{x}, \mathbf{y})$.

This is deliberately weaker than “no operation exists.” A weighted average, a normalization, a latent index or a hierarchical statistic can be built over any two numbers by anyone with an afternoon. Building one does not discover that the magnitudes were natively summable. It **creates a new representation under a new grammar**, which is SEVP §20 exactly: commensurability is declared, bounded by a purpose, and does not propagate past its declaration. $C_{\delta}(\mathbf{x}, \mathbf{y}) \rightarrow \mathbf{z}$ is a new object, and its existence is not evidence about $\mathbf{x}$ and $\mathbf{y}$.

2. What the money-form cannot natively carry

The load-bearing claim, stated at the strength the evidence supports:

A monetary scalar cannot natively preserve a prohibition on the operations constitutive of monetary equivalence.

Money can carry the digits 0.33. What it cannot carry *as money alone* is

0.33 **and** “this magnitude may not be aggregated with the neighbouring 1.00.”

The constraint must arrive as something attached — legal, contractual, accounting, institutional, semantic. And this is where the apparent counterexamples turn into instances.

Restricted cash is dollars plus a covenant. The dollars add perfectly well; the covenant forbids the use. The prohibition is in the contract, not the currency. **Segregated accounts** are a legal wall around fungible units, and the wall is statute. **Maturity classes** commensurate under discounting, which is a monetary operation supplied precisely to make them addable. **Contingent claims** are priced and traded, which is what commensuration looks like when it succeeds.

And different currencies are the strongest case for the thesis rather than against it. Faced with two units that are not identical, money's response is to build an exchange rate. It does not preserve the distinction; it prices it. The existence of FX is the money-form demonstrating that its answer to incommensurability is commensuration.

In every case the non-fungibility is real and is carried by something other than the money-form. Which yields the observation this paper did not have in v0.1:

Every real instance of non-fungible money is already an instance of the asymmetry. When a legal apparatus attaches a covenant to a balance, that apparatus is doing what the meaning layer does — carrying a monetary amount as one coordinate with constraints around it that the amount itself cannot hold. The covenant is a μ -object. The counterexamples are examples.

3. What the battery emits, and in what scope

Seven quantities per run, from wave 1 of the world strata:

quantity	value	scope of its commensurability
R_new	0.67	dated distinctions tested, this panel
false-distinction rate	0.36	observations, this panel
N_eff^source	2.79	per observation, this panel
write-back rate	0.67	where recorded, this panel
recovery rate	0.50	where recorded, this panel
DS, per item and form	0.33–1.00	within one item's reference inventory
N_eff^sense, per item and form	1.00–1.89	within one item's sense set

DS is the clearest case. Within one item it is a genuine fraction: distinctions reached over distinctions the reference carries. Across items it commensurates nothing — bank's 0.33 and crane's 1.00 sit in one table and are not fungible, because the inventories are different objects and the denominator is local to each. The table reads down and does not sum across.

The audit ledger's score vector (#1619 §17a) makes the refusal explicit and enforces it: no scalar may be computed from the seven, and the validator rejects a ledger carrying a composite. That is the same test as #1617 §31 applied one substrate over.

So the novel object is more precise than “a number that cannot be added.” It is:

a scalar whose admissible-operation constraint is constitutive of its meaning.

Strip the constraint and the number is not a weakened version of the measure. It is a different object that happens to share a digit.

4. The asymmetry, stated as embedding

Let **$G_S \sqsubseteq_E G_X$** mean there exists a structure-preserving representation of G_S in G_X : X can carry S 's inscriptions *and* their native operation constraints, without suspending X 's own native operations.

****G_M $\sqsubseteq$ E G_μ is demonstrated.**** #1620 is the demonstration: money's grammar written as an object, with its commensuration contract, its enabled capacities, its standing losses, its settlement scope and its remainder all carried, and the amount preserved exactly. Nothing in the meaning layer's grammar was suspended to accommodate it — a summable quantity enters an SEVP dossier as one coordinate among many, and the coordinates do not thereby become mutually exchangeable.

****G_μ $\sqsubseteq$ E G_M is conjectured false.**** Money could carry the digits of the battery's seven. It cannot carry them *with their scope constraints intact* without suspending general equivalence, which is the operation that makes it money.

Hence ****G_M $\sqsubseteq$ E G_μ****: strict expressive asymmetry, embedding one way and not the other.

And only then, jurisdiction. *Interpretive jurisdiction* is the consequence claimed where a receiving grammar can preserve a source grammar as an object without suspending its own native operations. It is a philosophical reading of an expressive result, and it is marked as such throughout. The empirical theorem is the embedding; the jurisdiction is what the embedding licenses one to say.

This also fixes the terminal notation. **M C μ is not written here.** Set inclusion is not what has been shown, and writing it collapses a demonstrated half and a conjectured half into one symbol. What is written:

G_M $\sqsubseteq$ E G_μ — **demonstrated** (#1620) G_μ $\sqsubseteq$ E G_M — **conjectured false**, falsifier at §6

5. What this is not

Not a claim that the meaning layer is larger, worth more, or ontologically superior. Those were available at every point in the sequence and none is made, because none is needed and none is demonstrable. *Capable of a distinction the other cannot make* is smaller and is what the evidence supports.

Not a claim that the battery has priced what money cannot price. That framing is the failure mode #1617 §20 and §31 were written against, arriving through the door marked *we finally priced the unpriceable*. The battery prices nothing; it measures, and its measures refuse exchange, and refusal of exchange is what money has no notation for.

Not a claim about a price. A price is a scalar and a scalar inscribes nothing. Θ inscribes; the price is its input. Read as *a number gained jurisdiction*, the whole apparatus reads as a bigger number winning, which is the thing it was built to refuse.

6. Falsification

The native-constraint claim (§2) fails on the exhibition of a monetary magnitude whose non-fungibility or non-aggregability is **native to the monetary amount itself** — not supplied by an attached legal, contractual, accounting, institutional or semantic qualifier — while the object remains money and retains monetary settlement capacity. That is the whole of §2's exposure and it is cheap to attempt. Nothing in restricted cash, segregated accounts, maturity

classes, contingent claims or multiple currencies meets it, for the reasons given; a case that does takes the paper apart at its base.

The expressive asymmetry (§4) fails on the exhibition of a structure-preserving representation of G_μ in G_M : a monetary inscription that carries the meaning layer’s grammar *with its operation constraints intact* while remaining money. Then μ and M are peers, $\square_E$ collapses to $\square_E$ in both directions, and the sequence’s ordering is a preference.

The scope claim about DS (§3) fails if DS travels across items after all — if fractions from different inventories combine into a panel-level quantity that behaves like a measure rather than an average of unlike things. The battery would then be emitting something fungible and not noticing.

Note on what does NOT falsify §3. Constructing a joint statistic over two of the seven does not falsify anything. Under §1 that is a new representation under a new commensuration contract, and its existence is evidence about the contract rather than about the measures. The v0.1 falsifier — “if any two admit a defensible joint operation” — was trivially satisfiable and is withdrawn.

What this paper may not be defended by: the failure of any particular price, or the observation that a scalar left something out. Every scalar leaves something out. The claim is about what a grammar can and cannot natively write, and that is settled by exhibition.

7. For the rounds

This is the converse §13 was missing, and it changes what the continuous document argues. Not that the meaning layer is worth more than money — neither demonstrable nor needed — but:

The meaning layer can preserve the monetary grammar as an object while also preserving operation constraints that the money-form cannot natively absorb without ceasing to perform general equivalence.

Half of that is demonstrated and half is conjectured, and the document should say which is which at every point where it is used. The falsifying exhibit is named in §6 and no one has produced it; that is where the claim should stand when it meets a body — strongest defensible form, falsifier specified, falsifier open.

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