Terminology Correspondence Table

Mapping CLCA/AOML/UFA Vocabulary to Standard Disciplinary Terms

Companion Document to the Foundations of the Convergent Semantic Architecture (Papers I–IV)

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Purpose

The Convergent Semantic Architecture spans multiple disciplines: linguistic typology, epistemology, formal logic, argumentation theory, philosophy of language, and artificial intelligence. Because no single discipline's vocabulary covers the full framework, the papers use internally consistent terminology that may not match the standard terms in any one field. This document maps the framework's terms to their nearest equivalents in each relevant discipline, notes where the mapping is approximate, and explains the principled reasons for terminological choices.

This table is intended for specialists reading the papers from within a particular tradition. It does not claim that the framework's terms are synonymous with their disciplinary counterparts; it identifies the functional correspondence so that readers can locate the framework's concepts within their own analytical vocabulary. Mappings are functional correspondences, not strict equivalences. Where no close match exists, the cell indicates the nearest conceptual overlap or notes the absence.

> **Methodological note (governs every cell below): mappings are functional correspondences, not strict equivalences.** Each cell locates the framework term's nearest counterpart within a tradition; it does not assert synonymy.

How to Read the Correspondences

Correspondences come in four grades, marked in the tables where the grade is not obvious from the cell's own wording:

Marker	Grade	Meaning
≈	Close correspondence	The established term performs substantially the same structural role.
~	Partial correspondence	The terms overlap but differ in scope, historical use, or

		theoretical commitments.
(analog.)	Analogical correspondence	The established term occupies a similar position in another disciplinary system.
∅	No direct equivalent	The framework combines functions the discipline does not name as one concept.

Cells that read "no direct equivalent; closest: ..." are grade ∅ with an analogical pointer. Unmarked correspondences should be read as functional but approximate unless the wording or an explicit marker indicates otherwise.

Core Framework Terms

Structural Components (AOML)

CLCA/AOML Term	Linguistics	Philosophy / Epistemology	Formal Logic	Computer Science / AI
Axis (e.g., VER, AUTH, SINC, NORM, ESS, VERIF)	Semantic field, conceptual domain, lexical field	Truth-kind, alethic dimension, epistemic category	Propositional domain, typed predicate family, many-sorted domain, dimension of interpretation; ~ universe of discourse	State type, variable category, data domain
Operator (e.g., CAUSE, BECOME, ATTR, RESULT, REVEAL, ABSTR, STRAT, CONTR)	Compositional operator, semantic function; for specific operators: valence alternation, argument structure operation	Compositional relation, epistemic operation	Inference rule, derivation operator, typed transformation; logical connective for a limited subset	State transition function, transformation rule
Method (e.g., OBSERVATION, EXPERIMENT, TESTIMONY, LOGIC, CONSENSUS)	No direct equivalent; closest: evidential marking, epistemic stance markers	Epistemic justification type, warrant type, evidential basis	∅ No full equivalent; closest: proof system, derivation method, admissible evidence, semantic evaluation procedure	Verification procedure, validation method, test oracle
Level (e.g., EMPIRICAL, CONVENTIONAL, FORMAL,	No direct equivalent; closest: register, pragmatic level	Ontological stratum, epistemic level, degree of abstraction	Object language / metalanguage distinction, logical type, order of predicate,	Abstraction layer, architecture layer, representation level, type

ULTIMATE)			level of abstraction, theory/model distinction	hierarchy
Meta-axis: DEG (Degree)	Scalar modifier, degree word, intensifier	Epistemic strength, credence, degree of belief	Probability value, confidence level	Confidence score, logit, probability weight
Meta-axis: TEMP (Temporal)	Tense/aspect marking, temporal adverbial	Temporal indexicality, historical context	Temporal logic operator (past, future, since, until)	Timestamp, temporal state, version
Meta-axis: LIKE (Likeness / Similative)	Similative marking ("like / as-if"), comparative resemblance	Verisimilitude, semblance, appearance vs. reality	No direct equivalent; closest: model/interpretation resemblance	Simulation fidelity, synthetic data, deepfake / spoofing

Specific Axes

CLCA/AOML Term	**Linguistics**	**Philosophy / Epistemology**	**Formal Logic**	**AI / Safety**
VER (Veridical)	Truth-conditional semantics, propositional content	Correspondence truth, alethic truth	Truth value, T/F assignment	Factual accuracy, world correspondence; claim grounding where grounding preserves a live evidential tether
AUTH (Authenticity)	No direct equivalent; closest: provenance marking	≈ Genuineness, authenticity of origin or authorship, provenance. Existential authenticity (Heidegger, Trilling, Taylor) is a related but distinct use; autographic vs. allographic (Goodman) concerns conditions of work identity	No direct equivalent	Provenance verification, chain of custody
SINC (Sincerity)	Expressive meaning, speaker	≈ Sincerity conditions (Searle); speaker commitment; good	No direct equivalent	Faithful reporting of internal state, calibrated self-report,

	attitude	faith; avowal congruence. The Gricean Quality maxim overlaps but also includes evidential and veridical constraints		non-deceptive output; intent alignment applies where systems are explicitly agentic
NORM (Normative)	Deontic modality, evaluative predication	Normative truth, deontic/evaluative domain, moral realism/anti-realism, ought-claims	Deontic logic operators (obligatory, permitted, forbidden)	Value alignment, normative constraint
ESS (Essence)	Definitional semantics, necessary predication	Essential vs. accidental properties (Aristotle, Kripke); metaphysical necessity; analytic truth in some definitional cases	Logical necessity, definitional axiom	Schema definition, type identity
VERIF (Verification)	Evidential morphology, epistemic modality	Verification, confirmation, epistemic access	Proof, derivability, proof procedure; decidability where a complete decision procedure exists	Testing, validation pipeline, evidence checking
LIKE (Likeness / Similative), *meta-axis, not a primary axis*	Similative marking; mimesis, iconicity	Verisimilitude = LIKE[VER] (aesthetic subset: lifelikeness); semblance, appearance vs. reality	No direct equivalent	Simulation fidelity; deepfake/spoofing = LIKE[AUTH]

Specific Operators

CLCA/AOML Term	Linguistics	Philosophy / Epistemology	Formal Logic	AI / Safety
CAUSE	Causative morphology, causative alternation	Causal relation, efficient cause (Aristotle)	∅ No equivalent in classical propositional logic; closest in specialized systems: causal conditional, counterfactual conditional, intervention operator, structural causal	Causal inference, intervention

			relation	
BECOME	Inchoative alternation, change-of-state predicate	Change, becoming, process	State transition	State change, update operation
ATTR (Attribution)	Predication, property assignment	Property attribution, predication	Atomic formula, predicate application	Feature assignment, label
RESULT (Resultative)	Resultative construction, telic predicate	Achieved state, outcome	Conclusion, derived proposition	Output state, end state
REVEAL	No direct equivalent; closest: evidential discovery construction	Disclosure, aletheia/unconcealment (Heidegger); manifestation	No direct equivalent	Discovery, latent variable exposure
ABSTR (Abstraction)	Nominalization, derivational morphology	Abstraction, concept formation	Lambda abstraction, type lifting	Embedding, feature extraction
STRAT (Stratification)	No direct equivalent; closest: internal classification, taxonomic structure	Internal differentiation, sub-categorization	Subtyping, partition	Hierarchical classification
CONTR (Contrast)	Antonymy, opposition, contrastive focus	Opposition, negation, dialectical contrast	Negation, complement, disjunction	Binary classification, decision boundary

UFA Terms (Paper II)

UFA Term	**Argumentation Theory**	**Philosophy of Logic**	**Cognitive Science**	**AI / Safety**
Mode-Condition Collapse	Ø No direct equivalent; proposed common structural mechanism underlying the UFA-classified fallacies	Illicit analogical transfer; presupposition failure in mapping	Analogical transfer error, mapping failure	Structural account of hallucinations and reasoning failures involving domain transfer, invalid composition, evidence mismatch, level confusion, or corrupted

				contrast framing; constraint or representation mismatch
Type 1: Axis Transfer Error	Ignoratio elenchi (partially), irrelevant conclusion	Category mistake (Ryle), categorical confusion	Cross-domain mapping error	Domain confusion, type error
Type 2: Operator Overextension	Non sequitur, formal fallacy, invalid syllogism	Invalid inference, scope error, rule misapplication	Reasoning error, rule overgeneralization	Invalid state transition, illegal operation
Type 3: Verification Habitat Mismatch	Irrelevant appeal (ad populum, ad verecundiam, ad ignorantiam)	Epistemic mismatch, warrant failure, evidential error	Source monitoring error, evidence confusion	Wrong metric, validation mismatch
Type 4: Stratification Misalignment	Fallacy of composition/division, hasty generalization, accident	Level confusion, mereological fallacy; collapse or conflation of conventional and ultimate truth levels (cf. the Buddhist two-truths distinction, which exists to prevent precisely this conflation)	Abstraction error, base-rate neglect	Type-level confusion, abstraction leak
Type 5: Contrast Frame Collapse	False dilemma, false equivalence, straw man	No unified tradition; closest: dialectical error, binary reduction	Framing effect, anchoring	Decision boundary corruption, domain misspecification
Compound violation	No standard term; "complex fallacy" used loosely	No standard term	No standard term	Multi-fault failure, cascading error

Paper III Terms

Paper III Term	Philosophy	Logic	Systems Theory
The argument from distinction	Transcendental argument (Kantian tradition); constitutive condition	No direct equivalent; closest: metalogical analysis	Precondition analysis, invariant derivation

	analysis		
Conditions for coherent distinction	Conditions of possibility (Kant); constitutive rules (Searle)	Well-formedness conditions, formation rules	System invariants, coherence constraints
Opposition topology	Dialectical structure, logical space	Negation, complementation, Boolean structure	State space topology, partition structure
Precondition vs. condition	Transcendental vs. empirical conditions	Metalevel vs. object-level distinction	Infrastructure vs. application layer

Paper IV Terms

The entries below are nearest analogues, not translations. Each row indicates where a term's closest counterpart lies in an established vocabulary and how far the correspondence extends; it does not claim that the concepts are interchangeable.

Paper IV Term	Function within Paper IV	Nearest philosophical analogue	Formal-semantic expression	AI / epistemic-engineering analogue
Distinction integrity (the truth substrate)	Preserves the contrastive structure required for anything to count as determinately true rather than collapsed or indiscriminate	Preconditions of determinacy and intelligible predication; preservation of the true/false distinction; no standard equivalent for the substrate as such	Non-degenerate interpretation or partition; distinguishable semantic values; exclusion of models that collapse the relevant contrast	Preservation of decision-relevant distinctions in representations, labels, and outputs; avoidance of representational collapse
Axis-relative truth	Makes correctness depend upon the semantic dimension along which a claim is operating, without making truth merely subjective	Alethic pluralism and discourse-sensitive truth, especially Lynch's manifestation functionalism and Wright's domain-sensitive account; AOML axes are more explicitly dimensional	Axis-indexed satisfaction relations or evaluation functions; typed or many-sorted languages may enforce the separation of axes	Axis- or task-conditioned correctness specifications; evaluations indexed to the kind of claim rather than one undifferentiated score
Two-ingredient framework (integrity always; external	Requires distinction integrity universally while requiring	A general truth role combined with domain-sensitive	Non-collapsed internal semantics plus, where required,	Representational integrity as a universal requirement; external

correspondence on some axes)	external tethering only where the governing axis calls for correspondence	realization, grounding, or correspondence conditions	an interpretation or validation relation tied to an external target system	grounding, measurement, provenance, or source tethering where correspondence is required
Substrate monism, realizer pluralism	Holds that truth has a common underlying condition while its successful realization differs by axis	Lynch's "one role, many realizers" or manifestation functionalism; AOML's substrate language may imply a stronger ontological commitment	A common satisfaction or correctness schema instantiated through axis-specific interpretations, valuations, or validation relations	A common correctness architecture with domain-specific validators, grounding channels, and evaluation mechanisms
Home axis (of a truth tradition)	Identifies the semantic axis on which a truth tradition's operator is naturally and properly licensed	The discourse or dimension in which a truth theory has its strongest explanatory fit	Intended class of models or designated semantic dimension over which a satisfaction rule is licensed	The task or claim class for which a validator, evaluator, or grounding method is properly licensed
Truth-structure	The organized conditions and validation relations through which claims on an axis can succeed as true	Domain-specific truth conditions or realization profile	Typed form of the relevant satisfaction or validation relation	Claim-specific correctness contract: required evidence, provenance, validator, and acceptance conditions

Note: Paper IV §10 relates the truth traditions discussed here to the four error traditions developed in Paper III. The relation is one of structural duality, not one-to-one terminological equivalence. The error traditions map directly onto the four AOML conditions (Axis, Operator, Method, and Level) because failure can often be localized to the violation of a single condition. The truth traditions instead have their natural homes on the semantic axes VER, ESS/FORMAL, SINC/AUTH, and VERIF. Their correspondence is therefore asymmetric: successful truth typically requires an integrated truth-structure, and does not decompose into independent components as cleanly as error does.

Terminological Choices: Rationale

The framework uses its own vocabulary rather than adopting any single discipline's terms for three reasons:

Cross-disciplinary scope. No single discipline's vocabulary covers the full framework. Linguistic terms cover the axes and operators but have no equivalent for methods or levels as used here. Epistemological terms cover methods and levels but handle operators differently. Formal logic terms cover operator licensing but have no equivalent for axes as semantic domains. Using one discipline's vocabulary would make the framework legible to that discipline while obscuring it for others.

Functional precision. The framework's terms are defined by their structural role in the constraint geometry, not by their historical associations. "Axis" was chosen over "semantic field" because the framework treats axes as dimensions of a geometric space with licensing constraints, not as collections of related words. "Operator" was chosen over "valence alternation" because the framework treats operators as compositional functions that may be licensed or blocked, not as morphosyntactic processes. Each term carries its AOML definition rather than the associations of its nearest disciplinary equivalent.

Internal consistency. The AOML tuple (Axis, Operator, Method, Level) is designed as a coherent system where the four components play structurally parallel roles. Borrowing terms from four different disciplines would obscure this parallelism. The uniform terminology makes the structural relationships visible: each component can be violated, and each violation produces a distinct failure type. Within the framework, the four components together with the contrast precondition are proposed as jointly exhaustive conditions for coherent distinction-making; the argument for exhaustiveness is developed in Paper III.

Where the framework's terms do correspond closely to existing disciplinary terms (e.g., "causative" for CAUSE, "inchoative" for BECOME, "sincerity conditions" for SINC), the correspondence is noted in the relevant paper and in the tables above. Where the correspondence is approximate, the tables note the approximation. Where no disciplinary equivalent exists (e.g., "verification habitat," "Mode-Condition Collapse"), the term is novel to this framework. The recurrence of these functional roles across otherwise distinct disciplines does not by itself establish the framework's completeness. It does, however, indicate that Axis, Operator, Method, and Level are not arbitrary inventions: they name recurrent structural functions that linguistic, philosophical, logical, and computational traditions have each encountered under domain-specific descriptions, distributed across their vocabularies rather than represented as one coordinated system. No single column of these tables contains the tuple in full; that distribution is itself the evidence that a unifying coordinate system was missing. The contribution of AOML is to place those functions within a common coordinate system and make their interactions explicit.

Readers who prefer their home discipline's terminology are encouraged to use this table as a translation tool; the framework's vocabulary is offered as a unifying layer across disciplines, not as a replacement for any discipline's established terms.

Conclusion

The correspondences documented here show that the components of the AOML tuple recur across linguistic, philosophical, logical, and computational traditions, although no single tradition names or coordinates all four components in the same way. This recurrence does not prove that the framework is complete or uniquely formulated. It does show that its central terms identify recognizable structural functions rather than arbitrary private categories.

The framework's proposed contribution is therefore coordinative: it places category, composition, validation, and stratification within one common geometry and makes their interactions and characteristic failure modes explicit. The empirical case for that geometry is developed in Papers I and II; the argument for its structural exhaustiveness is developed in Paper III.

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