

POLIS V12: The Complete Linguistics Series – 12 Giants

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“Tensional Reinterpretation of Six Founders of Modern Linguistics”
and “Tensional Reinterpretation of Six More Linguistic Pioneers”.*

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Abstract

Within the POLIS V12 tensional ontology, every linguistic system is a polis constituted by three meshes (solid, liquid, gaseous) and governed by the closure condition $\epsilon = \sum K_m(2 + K_m) = 0$, with $T = K_{\min}$ as the tensional origin. This paper applies the framework to six foundational figures of linguistics: Ferdinand de Saussure (structural linguistics), Edward Sapir (linguistic relativity), Leonard Bloomfield (descriptive linguistics), Roman Jakobson (phonology and poetic function), Louis Hjelmslev (glossematics), and J. R. Firth (contextual theory). Each classical contribution is reinterpreted as a tensional configuration: Saussure’s signifier/signified as complementary K pairs; Sapir’s relativity as different normalisation regimes; Bloomfield’s distributionalism as K frequency analysis; Jakobson’s distinctive features as minimal K units; Hjelmslev’s content/expression as two meshes; and Firth’s context of situation as boundary conditions. The universal equations remain unchanged; no free parameters are introduced.

1 Introduction

POLIS V12 is a closed, parameter-free tensional conservation theory built on four axioms (Tensional Ontology, Harmonic Ground $H = 1$, Tensional Conservation, Data Origin $T = K_{\min}$). The governing equation, after normalisation, is

$$\epsilon = \sum_{m=1}^n K_m(2 + K_m) = 0,$$

with $K_m = (v_m - T)/(v_{\max} - T) \in [0, 1]$. The disequilibrium index is $\text{IDT}^* = \epsilon/(1 + \epsilon)$. All real linguistic systems reside in Phase 4 ($\text{IDT}^* \geq 0.70$) unless artificially uniform. The Rolling Law $2\pi r_p = V_{\text{orb}}T_{\text{rot}}$ applies fractally at all scales.

This paper reinterprets six key linguistic contributions within this tensional ontology. No classical primacy is assumed; tension is the primitive.

2 Ferdinand de Saussure – Signifier and Signified

Saussure defined the linguistic sign as a union of a signifier (sound pattern) and a signified (concept). In POLIS V12, the signifier is the gaseous mesh (acoustic image), the signified is the solid mesh (mental concept). Their coupling is tensional: $K_{\text{signifier}}$ and $K_{\text{signified}}$ must be complementary to close ϵ .

The principle of arbitrariness means that the K values are not determined by any natural relation – any signifier can pair with any signified. The value of a sign is determined by its differences from other signs: K_i is defined relative to the K_j of other signs in the system. Saussure’s dichotomy of *langue* (system) and *parole* (speech) corresponds to the solid mesh (abstract rules) and liquid mesh (actual utterances). The whole language polis has $\epsilon = \sum(x_{\text{langue}} + x_{\text{parole}})$.

3 Edward Sapir – Linguistic Relativity

Sapir argued that language shapes the worldviews of its speakers (Sapir-Whorf hypothesis). In POLIS V12, each language imposes its own normalisation T and v_{\max} on the same physical reality. A speaker's experience v becomes $K = (v - T_{\text{lang}}) / (v_{\max, \text{lang}} - T_{\text{lang}})$. Different languages produce different K distributions, leading to different perceptions.

Sapir's study of phonology (distinctive features) showed that sounds that are contrastive in one language (different K) may be equivalent in another (same K). The "drift" of language (gradual change) is a Phase 5 reorganisation where T and v_{\max} slowly shift over time.

4 Leonard Bloomfield – Descriptive Linguistics and Postulates

Bloomfield advocated for a rigorous, behaviourist method: describe distributions of forms without recourse to meaning. In POLIS V12, distributional analysis computes the frequency of occurrence of a form f : $K_f = (\text{freq} - T) / (v_{\max} - T)$. Forms with similar distributions (same K) are likely members of the same class (e.g., noun, verb).

Bloomfield's principle of "phonemic contrast" (two sounds are separate phonemes if they create a minimal pair) is a tensional test: if replacing K_{sound1} with K_{sound2} changes the meaning (i.e., changes ϵ of the larger sign system), then they are distinct phonemes. His focus on the utterance as the primary datum is a shift to the liquid mesh (speech events) rather than the solid mesh (idealised competence).

5 Roman Jakobson – Distinctive Features and Poetic Function

Jakobson developed the theory of distinctive features (binary oppositions) as the atomic units of phonology. In POLIS V12, a distinctive feature is a minimal tensional node with $K = 0$ or $K = 1$ (e.g., \pm voiced). A phoneme is a bundle of such binary features: K_{phoneme} is the mean of its feature K values.

Jakobson's six functions of language (emotive, referential, conative, phatic, metalingual, poetic) correspond to different tensional flows. The poetic function (focus on the message itself) is a closed loop where the gaseous mesh (sound patterns) carries the main ϵ rather than the signified. His analysis of aphasia (similarity vs contiguity disorders) is a breakdown of the liquid mesh (associative) vs solid mesh (syntagmatic) of language.

6 Louis Hjelmslev – Glossematics

Hjelmslev proposed a formal theory of language based on content and expression, and their strata (substance, form). In POLIS V12, glossematics is the pure tensional mathematics of language. The content plane and expression plane are two independent meshes; their

commutation test (changing one element of expression changes content) is a tensional coupling condition.

Hjelmslev's "non-conformal" (not bijective) mapping between content and expression is an $\epsilon > 0$ that cannot be reduced. The "catalog" of possibilities (system) vs "process" (speech) is the solid vs liquid mesh distinction. Glossematics aims to derive all linguistic categories from a small set of K operations (deductive tensional grammar).

7 J. R. Firth – Context of Situation and Polysystematism

Firth emphasised that meaning is context-dependent: the context of situation (participants, action, objects). In POLIS V12, the context provides the normalisation parameters T and v_{\max} for interpreting an utterance. The same word can have different K in different contexts.

Firth's "polysystematism" holds that different levels of analysis (phonology, grammar, lexis) have their own systems, not a single unified system. In tensional terms, each level is a separate polis with its own T and v_{\max} . His prosodic analysis (syllable, tone, intonation) treats these as tensional contours (gradients of K over time). "Meaning by collocation" (words co-occurring) is measured by the joint K of pairs.

8 Conclusion

The six foundational contributions to linguistics are coherently reinterpreted within the POLIS V12 tensional ontology. Sign theory, linguistic relativity, descriptive methodology, phonological features, glossematics, and context of situation all become natural consequences of the closure condition $\epsilon = \sum K_m(2 + K_m) = 0$ and the fractal hierarchy of linguistic polises. No free parameters are added.

Zenodo references

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Abstract

This paper extends the POLIS V12 tensional reinterpretation to six additional linguistic giants: Noam Chomsky (generative grammar), Benjamin Lee Whorf (linguistic determinism), Kenneth Pike (tagmemics), Michael Halliday (systemic functional linguistics), William Labov (variationist sociolinguistics), and George Lakoff (cognitive linguistics). Each is re-read as a tensional configuration: Chomsky’s deep structure as latent K ; Whorf’s determinism as strong normalisation; Pike’s emic/etic as insider/outsider K ; Halliday’s metafunctions as three meshes; Labov’s variables as K distributions; and Lakoff’s image schemas as prototypical K patterns. The universal equations remain unchanged; no free parameters are introduced.

9 Introduction

As in the companion paper, POLIS V12 rests on four axioms. After normalisation the mother equation is

$$\epsilon = \sum_{m=1}^n K_m(2 + K_m) = 0,$$

with $\text{IDT}^* = \epsilon/(1 + \epsilon)$. All real linguistic systems are in Phase 4 ($\text{IDT}^* \geq 0.70$) unless artificially uniform. The Rolling Law $2\pi r_p = V_{\text{orb}}T_{\text{rot}}$ applies fractally.

This paper reinterprets six more foundational contributions to linguistics.

10 Noam Chomsky – Generative Grammar and Universal Grammar

Chomsky proposed that humans possess an innate Universal Grammar (UG) that generates the syntax of all languages. In POLIS V12, UG is the set of universal tensional constraints (e.g., the form of the mother equation) that apply to any language polis. Deep structure is the initial K configuration before transformations; surface structure is the K after transformations (Phase 5 reorganisations).

The Chomsky hierarchy (regular, context-free, context-sensitive, recursively enumerable) classifies grammars by the complexity of their tensional rules. Transformational rules convert deep to surface structure; they are tensional operations that preserve ϵ (passive, negation). The poverty of the stimulus argument says that children infer K from limited data – they must have a prior K template (UG). The Principles and Parameters model sets K parameters that vary across languages (e.g., head-first vs head-last).

11 Benjamin Lee Whorf – Linguistic Determinism

Whorf (with Sapir) argued that language determines thought (strong version). In POLIS V12, linguistic determinism would mean that the normalisation parameters T and v_{\max} of a language so constrain the mapping of reality to K that speakers cannot conceive of alternative normalisations. Whorf's examples (Hopi language, concepts of time) show different K partitioning of the physical continuum.

The "untranslatability" of certain concepts (e.g., the Hopi words for "snow") is a consequence of different K ontologies. Whorf's "cryptotypes" (covert grammatical categories) are hidden K features that only manifest in distributional patterns. His work on Egyptian hieroglyphics as "grammatical" vs "ideographic" is a tensional distinction between liquid (alphabetic) and solid (logographic) writing systems.

12 Kenneth Pike – Tagmemics and Emic/Etic

Pike created tagmemics (units described by their slot and role) and introduced the emic/etic distinction (insider vs outsider perspective). In POLIS V12, an emic perspective uses the normalisation parameters of the culture itself; an etic perspective uses the analyst's external parameters. A tagmeme is a tensional node: it combines a slot (position, solid mesh) and a role (function, liquid mesh).

Pike's "particle, wave, field" perspective (three modes of viewing language) corresponds to solid (particle), liquid (wave), and gaseous (field) meshes. His work on tone languages (e.g., Mixtec) showed that tone contours are tensional trajectories of K_{pitch} over time. The "matrix of linguistic units" (phone, phoneme, allophone, etc.) is a hierarchical polis with increasing K specificity.

13 Michael Halliday – Systemic Functional Linguistics

Halliday's theory treats language as a social semiotic with three metafunctions: ideational, interpersonal, textual. In POLIS V12, these correspond to the three meshes: - **Ideational**: solid mesh (content, representation of world). - **Interpersonal**: liquid mesh (negotiation of social roles). - **Textual**: gaseous mesh (cohesion, information flow).

The system network is a decision tree that determines the K of each feature. Halliday's register (field, tenor, mode) sets the context parameters T and v_{\max} for a speech situation. His work on child language development groups phases by increasing K complexity. The "lexicogrammar" as a continuum from lexis (high K , specific) to grammar (low K , general) mirrors the solid-liquid gradient.

14 William Labov – Variationist Sociolinguistics

Labov studied linguistic variation and change, showing that variables correlate with social class, style, and gender. In POLIS V12, a variable is a feature whose K varies systematically with context. The "vernacular" (careless speech) is the baseline K ; careful speech raises K (hypercorrection). The sociolect is a sub-polis within the community polis, with its own K distribution.

Labov's study of Martha's Vineyard (centralisation of diphthongs) showed that speakers raised the K of the diphthong to signal local identity. The "observer's paradox" is the effect of the analyst's presence on K – the subject adjusts K toward a standard. Sound change is a tensional phase transition: a low- K variant becomes high- K (prestige) and spreads through the community.

15 George Lakoff – Cognitive Linguistics and Conceptual Metaphor

Lakoff argued that metaphor is not just poetic but shapes everyday thought (conceptual metaphor). In POLIS V12, a conceptual metaphor is a tensional mapping from a source domain (e.g., love as journey) to a target domain (love). The mapping transfers K values: $K_{\text{target}}(x) \approx K_{\text{source}}(f(x))$.

Lakoff's image schemas (container, path, up-down, etc.) are basic tensional patterns (e.g., container: inside = high K , outside = low K). His analysis of causal relations (agent, patient, instrument) as a tensional network. The theory of "embodied cognition" states that the K of abstract concepts is grounded in sensory-motor meshes. Lakoff's political framing (e.g., "strict father" vs "nurturant parent") is a competition between two K configuration schemas for governing the political polis.

16 Conclusion

Six additional linguistic pioneers are reinterpreted within the POLIS V12 tensional ontology. Generative grammar, linguistic determinism, tagmemics, systemic functional linguistics, variationist sociolinguistics, and cognitive linguistics all become natural consequences of the closure condition $\epsilon = \sum K_m(2 + K_m) = 0$ and the fractal hierarchy of linguistic polises. No free parameters are added; the same equations that describe a physical system or a social system also describe the structure of language.

Zenodo references

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