The Advent of Conceptual Logic:

Extending Kant's Copernican Revolution

Abstract. *Standard logics are alethic, truth, logics, used to investigate the relations of statements' truth values. I have drawn a logic of concepts from the English language with which to investigate the relations of concepts' coherence values--coherent/incoherent--within sentence settings. You may use either of these three names --coherence, conceptual, lexical logic—for this new logic. I distinguish between /sentences/, ^propositions^, and <statements>. Note the different quotation marks. A knowledgeable speaker of English will easily judge ^The nail is rusty^ is coherent and the ^The nail is sleepy^ is literally incoherent. This logic has valid conceptual inference forms that you may use to confirm or disconfirm propositions'contested coherence value.*

*Conceptual logic is more suitable for philosophy than alethic logic, because, since Plato, philosophers' main subject matter has been concepts; Socrates wanted definitions of lexical words. There are two important consequences of the shift from alethic to conceptual logic. First, current analytic philosophy's orthodox, alethic methodology is designed for statements; mine is designed for concepts. I replace alethic with a new conceptual logic. Second, my new methodology extends Kant's Copernican Revolution. The key passage for understanding this is in Kant's first Critique, B xvii, pp. 21 – 22; see it at p. 16, fn. 22, and see section **3.b**, pp. 14 - 17 in this essay.*

Key words: Coherence . [Functor] . [Emplace/Assign] . structuralist . lexical/conceptual space . leutic modalities . variables . the [Any] quantifier.

1. Introduction: In a "Brief Lives" essay,[1] Alistair MacFarland points out that Nelson Goodman treats art "as belonging to the mainstream of modern philosophy. This, in his view, began when Kant, at the end of the Eighteenth Century, considering what was of primary importance for human knowledge, exchanged the structure of the external world for the structure of the mind as primary". He notes that C. I. Lewis significantly extended Kant's Revolution by substituting the structure of concepts for the structure of the mind; the structure of concepts was elabor-

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ated with the development of <u>symbol systems</u> in analytical philosophy for the sciences, the arts, and everyday discourse, at around the beginning of the Twentieth Century. (My underlining.) This essay extends the "mainstream of modern philosophy" into the beginning of the Twenty-first Century with a new, conceptual logical "symbol system".

One request for at least two decades has been a call for an "inferential semantics" of concepts. Robert Brandom did so, following W. Sellars who differentiated "material inferences" from alethic logic inferences. I've answered this call with a **conceptual/lexical logic**, which, so far as I know, is the first one. It makes explicit a logic implicit in the English language that speakers use to judge ^The nail is rusty^ is **coherent** and to judge ^The nail is sleepy^ is **incoherent**. These bivalent evaluations of **propositions** that are interpretations, nominalistic rewrites, of our subject-predicate sentences, replace the street terms ^meaningful^ and ^meaningless^. In contrast, alethic logicians use the evaluative **^true^** and ^f**alse^** for **statements**.

Conceptual logic antiquates analytists ^theory of meaning^, its alethic methodology, and most of its core concepts. Conceptual logic is embedded in English and other languages. I've made it explicit,[2] formulated its apparatus and uses. Its **functors**/operators enable us to fashion a structured lexical /conceptual space. * I prove neither conceptual nor truth logic are reducible one to the other. * I introduce the most important concepts in logic, the coherence values of propositions, coherent/incoherent. They are not identical to consistent/inconsistent evaluations of statements' truth value. * Conceptual logic is the **basement logic** for alethic logic, because its coherence values entail a coherence theory of truth. * I prove the correspondence account of truth is incoherent. * Conceptual logic's valid inference forms are algorithms for determining propositions' coherence value; they could underwrite a computerized conceptually organized dictionary. * Using only the [Any] [Functor] 'quantifier' supports a nominalistic theory of concepts: Concepts are physical tokens with unique locations in lexical/conceptual space. * I critique analytic philosophy's core concepts and replace them (Section 3) *

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[2] See *The Logical Structure of Conceptual Coherence 3.0* on my website. You can enter it by typing: sfsu arthur bierman. There's a "Precis" of *3.0* on my website that's less detailed but more accessible.

These replacements rotate the relation between language and the world 180º degrees. I abandon the orthodox Word → World direction in favor of the World → Word direction. To say we name, refer to the world's substantives and tropes mis-describes what we do; it is correct to say we assign and emplace them in languages' variables tokens, incorporate them in a lexical/ conceptual space. It raises the curtain on the extension of Kant's Copernican Revolution via C. I. Lewis's suggestive remarks about concepts.

Conceptual and alethic logics aren't reducible one to the other. Conceptual negation [~] functions differently from truth negation [-]: Not both contradictory statements, <The nail is rusty> and <The nail is not [-] rusty>, are true, but both are coherent. <1 true statement = 2 two coherent propositions> is as incoherent as ^1 = 2^. Further, both need to be coherent; if they weren't we couldn't use either to contradict the other. (i) An incoherent proposition (gibberish) can't contradict anything, and (ii) a coherent proposition can't contradict (gibberish) an incoherent one. That is, GIGO.

I call this new logic a **Basement Logic**, because the truth conditions of statements rest on the foundations of propositions' coherence conditions.[3] It replaces the standard correspondence account of statements' truth value, which account I prove later is conceptually, fatally incoherent.

To extend Goodman/MacFarlands' 'mainstream' flow requires a conceptual logic methodology; ordinary language philosophers understood this. They relied, however, on an intuitive, informal methodology alone, which often engenders correct conjectures of coherence value. But, if challenged by others' intuitions they don't have conceptual logic's formal resources; they lack valid inference forms to show their judgments are coherent.

Alethic logic enables us to infer valid relations between statements' truth values, but doesn't enable us to infer valid relations between concepts nor between propositions' coherence values. It's functor poor.

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[3] "basement *1*. The lower or fundamental portion; a base. "Up from its deep reservoirs, from the mysterious basements of the mountain, wells the silent stream". *J. A. Symonds*, Italy and Greece; p. 322, *Century Dictionary*: *An Encyclopedic Lexicon of the English Language*; William Dwight Whitman, (Ed.), (Rev.) Benjamin E. Smith; New York, 1889 – 1914. My copy is the 1914 edition. (Onion skin pages)

2. A Conceptual System: Donald Davidson wrote, "...something is an acceptable conceptual scheme or theory if it is true". A conceptual system is a structural feature of languages, which, as such, may be "acceptable", but, unlike statements, can't be "true". Nor can there be a 'theory' of it. As Wittgenstein said it must be "shown", as I do when I exhibit logical spaces inside a language's lexical/conceptual space as valid inference forms. See *The Logical Structure of Conceptual Coherence 3.0* and "A Precis of *3.0*" on my website.

The [Functors], 'operators', used to construct a lexical/conceptual structure are mostly well known to linguists who are lexical specialists. I've used their 'relations' and found others they haven't made explicit, extracting a structure from English that yields a logic. This structure exists in French, German, Italian, and Greek[4] and 'probably' in most other languages that I don't know. I learned that "a *structural* theory of concepts" is the correct way of describing my account of them after reading Charles Parsons' remarks about a structuralist view of mathematical objects: "... reference to mathematical objects is always in the context of some background structure, and that the objects involved have no more to them than can be expressed in terms of the basic relations of the structure".[5] Think of ^*concepts*^ as Parsons urged us to think of mathematical '*objects*'.

Conceptual logic for subject/predicate propositions has eight **functor** operations; seven are interpretations of propositions' copulas; the eighth is conceptual negation, [~].[6] With these functors, we can make a structured **lexical/conceptual space** within which we may formulate valid conceptual inferences. This logic has more copula functors than alethic logic, because it adds two more pairs of concepts that need copulas: Substantive (SS) and trope (TT)/(PP) concepts. For example, (SS) /^plant^ subsumes ^oak^/, (PP) /^health^ subsumes ^ill^/, (SP) /^heart^ ^beats^/. Alethic logic covers only

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4 I learned this from John Lyons' *Structural Semantics: An Analysis of Part of the Vocabulary of Plato;* Oxford (UK), Basil Blackwell, 1963. The "Part of the Vocabulary" is Plato's epistemic concepts.
5 Charles Parsons, "The Structuralist View of Mathematical Objects," p. 303: *Synthese,* #84, pp. 303-346. Parsons says he's trying "to make clearer the version of the structuralist view of mathematical objects" he defended earlier in his "Structuralism and Metaphysics", *The Philosophical Quarterly*, Vol. 54, No. 214, January 2004.
6 I have underway a conceptual logic for relational sentences: /Jill *loves* Jack/, /Jill is *smarter than* Julie/, /1 is the *successor of* 0/. They are quite different from subject/predicate sentences. I treat such 'relations' as functors—[Love], [Smarter], [Successor of]--we use to *order* their terms, transitive, asymmetrical, ... ^Jason is taller than love^, for example, is incoherent , ^Jason is taller than Jill^ is coherent.

substantive-trope (ST)/SP concepts. Conceptual logic is richer; it multiplies functors beyond the normal alethic copulas (to be/to have) for subject/predicate sentences. The late Laurence Goldstein informed me that it's been proven that connexive logics, which my conceptual logic is, cannot be axiomatized. So, do not expect axioms. Anyway, who needs axioms? See Carlo Cellucci's "Is Mathematics Problem Solving or Theorem Proving?". (Springer, Published online, 21 December 2015) gives an overview of his analytic method of problem solving (germane to my via attiva) versus the axiomatic method of proving theorems (germane to my via passive). Cellucci's essay is a major contribution to an ancient controversy up to the present day about the proper mode of characterizing what mathematicians do. In *Rethinking Logic*, "High Expectations, Modest Returns", p. 225, (Springer, Dordrecht, 2013), Cellucci provides a devastating list of unfulfilled claims for axiomatic methodologies. My contrast between the via attiva and the via passive doesn't favor one mode over the other; both are methodologically sound. But no via passive reports could exist without prior via attiva discourse or Cellucci's "discovery of solutions" to logical problems. Reports, Hegel's Minerva, fly at midnight. I present conceptual logic as via attiva, Cellucci's analytic method of discovery: Can we reason *logically* about concepts?

Conceptual logic's structural 'relations' are [**Functors**]. They're via attiva operations we perform: We bond, link, subsume concepts, ...; they're in the active advisory voice (via attiva). Persons ^[**Subsume**] ^python^ under ^snake^^, in contrast to the passive reporting voice that someone/many/everybody <[**Subsumes**] ^snake^ ^python^>. The /-**s/ in /**[**Subsumes**]/ marks a via passive statement.

Analytic philosophers relate the 'meaning' of lexical words and the 'meaning of propositions' containing those words by saying we *compose* propositions out of their resident concepts; "The meaning of a proposition, ^The nail is rusty^, is '*composed*' of the meanings ^nail^ and ^rusty^". Proponents of this Haggis metaphor owe us an explanation of how the several word 'meanings' can 'meld' into a proposition's singular 'meaning'.[7] I substitute the travel metaphor connecting

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[7] The most extended, sophisticated defense of the compositional view is Eva Picardi's *La Cimica dei Concetti (The Chemistry of Concepts; Chapter IV, pp.* 181-210. "Cimica" is better translated as "the valence of concepts", p.184. Bologna, Italy, il Mulino, 1994. It's not been translated. A search shows a deservedly enormous literature about her book.

propositions' concepts for the standard compositional metaphor. We travel on modally limited or allowed "routes in lexical space", from one concept to another, from ^nail^ to ^rusty^ or to ^sleepy, as we travel from one city to another. The route from ^nail^ to ^rusty^ is coherent, the route from ^nail^ to ^sleepy^ is incoherent. I explain the advantages of the travel metaphor later.

      2a. Modal and structural functors: There are leutic **Moda**l and **Structural** functors in the charts below. The leutic modalities[8] on the left side *require* or *limit* **internal relations** in a conceptual system**;** those on the right *allow* or *limit* **external relations** of a conceptual system's concepts with the world's substantives and tropes.[9]

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Modal Leutic Functors

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[Enjoined to], [Enjoined not to]	[Allowed to], [not Allowed to]
travel a route in lexical space	travel a route in lexical space from
from lexical concept C^1 to C^2	a substantive to a trope concept

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Structural Functors

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Functors for above leutics	Functor for above leutic
[Subsume, **/**] [Bond, **:**] [Conger, **:+**]	[Sooth, **.**] Old English for
[Link, ***] [Identify, **=**]	[True/False] "In sooth, Sire ..."
[Counter, **~**]/[Incompatible, **!**][10]	
[Assign]/[Emplace] [11]	^^S is P^ and ^S is ~P^^

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[8] /Leutic/ is a short form of /symboleutic/ from Greek pertaining to acting, doing something.

[9] For explanations of these functors accompanied by examples of conceptual inferences on my website, see *The Logical Structure of Conceptual Coherence 3.0*, pp. 11-34. Although the "Precis" of *3.0* is less comprehensive than *3.0*, it's a more accessible presentation of the conceptual inferences. It will be welcome to those who lead over-burdened lives.

[10] Countering a concept ^C^, ^gray^, is making a new concept ^~C^, ^~gray^. ^C^ and ^~C^, ^gray^ and ^~gray^ are [Incompatible]. Conceptual negation, [~], is similar to [Non-] in alethic syllogistic logic; ^gray^ vs. ^non-gray^ is logically similar to gray^ vs. ^~gray^.

[11] I count [Assign] and [Emplace] as one functor for [Sooth, **.**] sentences.

We use the [Enjoin to] leutic modal functors to advise each other on the **routes** we *should travel* between tokens and [Enjoin not to] on **routes** we *should not travel* inside conceptual space (**internal relations**)--**if we wish to travel jointly and coherently with others**, which is the hypothetical **Leutic Imperative**. The ideal for communication is that each person's conceptual structure is isomorphic with all his/her co-language speakers.

We use [Allow] to advise each other on the routes we *may* travel coherently from substantive concepts, say, ^weather^, to a **range** of trope concepts, ^{misty hot ...}^. We may coherently **assign/emplace**, respectively, our data about today's local weather and its misty trope into the grammatical subject and predicate tokens of /The weather is misty/. Once substantives and tropes have been emplaced coherently in structured tropes, they are given subsumed places in lexical/conceptual space under ^weather^ and ^misty^. According to a structuralist account of concepts, emplacing such data, even though temporarily, into a sentence's **grammatical** subject and **predicate**, transforms the weather and the mist into the **semantic** subject and predicate of that sentence, because they're given unique relational places in lexical space. This is how the electro-magnetic causes, **E-M-Cs**, of our sensory data become literal **content** of sentences, which thoughts about them can never be.

Energy exchanges with the world's E-M-Cs and our visual, auditory, ... sensory organs cause sensory data, as when light reflected from a pear strikes our eyeballs. Data aren't linguistic tokens, so they stand in **external relations** to lexical space. I distinguish ^substantive^ from ^trope^; for example, a hat *object* or the *event* of a gun's firing are substantives that occur in but *one* place at a time, whereas the hat's *red trope* and a shot's *loud trope* (^properties^) that may occur in *many* places at the same time. Once the E-M-Cs of a red hat and a shot's loud pop sensory have been assigned/ emplaced into sentences' subjects and predicates, we've subsumed them under concepts within conceptual space. These E-M-Cs are now inside lexical space, transformed into **conceptualized substantives** and **tropes**; they're no longer just sensory data. This is an interpretation of what Kant was trying to do while launching his Copernican Revolution. See the third sentence of Fn.

22, p. 16. I interpret /conform/ to concepts as ^may be coherently emplaced in a token^. The advent of a conceptual logic further extends Kant's Revolution when he superseded British empiricism.

2b. Exemplifying a Ground Zero Emplacement:

/This dot is black/ is a **grammatical sentence**.

With two coherent, literal emplacements into its subject and predicate, we can construct a **semantic proposition** from the sentence. The first step is to emplace a dot into /dot/'s subject place in the sentence. Unlike [Refer], [Emplace] goes beyond solely taking sensory notice of the referent; in order to emplace at *ground zero*, you have to physically emplace a sensed dot in the sentence's subject. In (1) below, you need to emplace the physical dot into the subject's place, which you then move into /black/'s place. You can't do this on an electronic medium; so imagine that the dot you see on a computer screen is a dot on paper. You must coherently emplace a dot twice into /This dot is black/, into both the subject and predicate places. Voila! *you've made a coherent proposition, S+P+, as well as a true statement, and a fact/ state-of-affairs.* Writing a bank check is another example of emplacing. You *write* the amount of money in numerals and in script in /$/ places and your signature in its blank place. Here's money, thanks to emplacements. Emplacing pays, referring doesn't, of which more ahead.

(1) /This **.** is black/. **S+**, **coherent emplacement**.

The second step is to move the dot and emplace it into /black/'s predicate place in the sentence to verify that the dot carries a black trope there:

(2) /This dot is (**.**)/ black/, **P+**, a **coherent emplacement** into /black/.

Gathering these two coherent emplacements together, we've constructed a coherent **semantic proposition**:

(3) **^This . is (.)black^**, **S+P+**, has world content inside now. The dot and its black trope are there; we're not referring to them. Without that content, there can be no truth value statements about the world. The dot

carried its black trope into the predicate place. Thus, we verify the truth of the **statement**, <This dot is black>, because the emplacements in the subject and predicate are coherent, **S+P+.** This is the **Coherence Account of truth value**, without a whiff of correspondence in it. The semantic proposition (3) is one entity, not two, (1) a given fact/state-of-affairs and a (2) sentence that corresponds requires. The fact has been constructed by two emplacing acts.

One consequence of this World → Language direction is we learn states-of-affairs/facts are not 'given' but made by us in two steps. (a) We construct the concepts of ^substantive^ and ^trope^ based on sentences' grammatical and lexical distinctions, and (b) coherently emplace observed E-M-Cs into the grammatical subjects and predicates. (b) is ground zero the physical emplacement of substantives and tropes into sentences terms. This is the *Gold Standard*. I've elaborated on this extensively in "Assignments and Varieties of Emplacements" on my website.

[Link] is the intermediary functor between lexical tokens' internal relations in conceptual space and their external relations to the world's E-M-Cs of substantives/tropes.[12] Substantive concepts are linked to **ranges** of incompatible trope concepts that are [Allowed] to be soothed of the concepts in the range. Below is (a) [Subsume]'s form of a *range* of trope concepts: T* subsumes {T1... Tn}; (b) a [Link] form of a substantive linked to that range of tropes; (c) emplacements in the [Link] form; and (d) validly inferred [Sooth] propositions, *provided* the substantive isn't bonded to one of the trope concepts. For example, since ^[Bond, *Enjoined*] gorilla hairy^ is coherent, it entails ^[Sooth, *Allowed*] gorilla scaly^ is incoherent.

(a) Form: ^[Subsume, Enjoined] T*(rope) {T1 T2 ... Tn.}^

(b) Form: ^[Link, Enjoined] S(ubstantive) T(rope range) {...}^

(c) ^[Link, Enjoined] ^skin^ ^{T1(hairy) T2(smooth) T3(scaly) ... Tn}^^.

(d) ^[Allowed, Sooth] ^skin^ ^{T1(hairy), T2(smooth) T3(scaly), ... Tn}^^.[13]

From the structural [Subsume] and [Link] propositional functors, we may validly infer coherent, [Allowed, Sooth]/predicative propositions: ^[Sooth] ^skin^ ^hairy^^, ^[Sooth] ^skin^ ^smooth^^, ^[Sooth] ^skin^ ^scaly^^, ...

The trope concepts in the above range linked to ^(Skin)surface^ are incompatible. Because the range of skin tropes contains more than two incompatible concepts, they're *contraries*. The range **{alive dead}** contains only two incompatible concepts: so, they're *contradictorie*s.

2c. Plato was the first conceptual logician: Some components of this new logic appear in Plato's corpus. As Clayton Morgareidge discovered (seminar paper), Plato used the *subsumption functor* that forms a tree structure in his *Sophist* to identify the concept ^sophist^. [Subsume] is one of the seven [Functor] interpretations of sentences' *copulas*. It's widely used in "expert" systems to organize medical concepts. The genus/species distinction depends on it. A similar structure clarified ^angler^: Anglers' hook fish, Sophists hooked young men who wanted to learn how to be skilled orators. Using the [Subsume] functor is a great leap past the 'definition' of his earlier dialogues.

Plato used *conceptual negation* [~] to refute Parmenides' claim that we cannot make false statements. Plato's negation in his *Republic* is usually translated as "other". For "other" I use the symbol [~] to negate *concepts*. ^Rough^'s conceptual negation is ^~rough^, which abbreviates the [Link] range of ^~rough^s many incompatible contrary concepts, {smooth hairy scaly ...}. Ask your dermatologist.

Plato used *incompatible concepts*, ^periphery^ and ^center^, in his *Republic* to show that an apparent truth contradiction, <The spinning top is both at rest and in motion>, is not contradictory: The spinning top's ^*cen-*

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[13] The positivists relied solely on [Sooth, **.**] verifiable predications, to distinguish 'meaningful' from 'meaningless' sentences, a paltry basis for doing so compared to the left column's enjoined, structural functors, p. 6, for establishing coherence value between SS, PP, and SP concepts.

ter^ is at rest while its ^*periphery*^ rotates with respect to the top's place on a surface. He also used incompatible concepts to prove the soul and the state have three parts. (*Republic*, 434^d^– 441^c^) In his *Phenomenology*, Hegel borrowed Plato's *conceptual-distinction* tactic, viz., make a conceptual distinction to show how we dissolve contradictions to forward civilization's ascent to a contradiction-free, fully cognized Absolute. Hegel and Marx--Marx once was a "young Hegelian"--often confused the logical functors, [~] and [-], with ^opposition^. Kant explicitly did not.

Aristotle didn't follow up on these promising conceptual logic beginnings especially suited for philosophy whose business is investigating concepts. Socrates asked for definitions of lexical terms—justice, knowledge, piety; he knew it's incoherent to 'define' propositions. Aristotle's syllogistic logic snuffed the development of Plato's early forays into conceptual logic. My logic resumes from when Plato's 'Open Sesame' to conceptual logic was latched shut. Now that there is a conceptual logic, philosophy departments may want to shift from an alethic to a conceptual logic curriculum or to supplement their alethic logic courses with the conceptual. This is most important for philosophy students as alethic logic makes but a small contribution to philosophy's core conceptual mission unless you're focused on the philosophy of mathematics where alethic logicians continue to confuse [-] with [~].

3. Coherence Logic Antiquates Current 'Analytic' Philosophy's Core Concepts. Conceptual logic and coherence value are the flagships of my extension of Kant's Copernican Revolution. He developed a more sophisticated epistemology than British empiricists' simpler 'sensible ideas' with his cognitive, apsychological 'concepts', gave it a dominant position over metaphysics, and anticipated C. I. Lewis's *Mind and the World Order* critique of modernists' 'sense data' epistemology. See fns. 21 and 22, page 16 for my proposed Kantian extension.

Coherence logic antiquates core concepts in orthodox Anglo-American 'analytic' philosophy. ^*Analyze*^ is defined in one dictionary: "1. to separate (a thing, idea, etc.), whereas, conceptual logic *synthesizes* concepts within a lexical/conceptual space, which like a house's trussed structure holds its parts together.

Conceptual logic abandons the concepts of ^meaning^ (there can be no 'theory' of meaning'), ^refer^, ^'names' refer^, ^correspondence^ (account of truth), and relegates alethic ^quantifiers^ [all, some, none, one] solely to conceptual logic's [Any]. I harbor no illusions these concepts will be readily exchanged for mine by folks in current agoras, nor even in the upper reaches of philosophers' ranks. But they who spend their life studying 'theory of meaning' and related offshoots are toiling in a ruined agora; I'm sure they will happily abandon concepts that misdescribe what we do when we communicate successfully. Discussion of each of these antiquated analytic concepts and their structural replacements follows.

3a. Meaning *versus* a Place in Lexical/Conceptual Space. Meanings don't exist. If you ask someone for the meaning of a sentence or of words in it, you'll get naught but spoken, written, ... tokens. If you ask for the meanings of those tokens, you get more tokens. Always. All so-called 'meanings' are naught but token *rewrites*. Exeunt 'meaning'. Enter nominalistic structures of tokens.

I was prompted to extend Plato's early forays into conceptual logic by Wittgenstein's central worry in his *Tractatus*: What can we say and what can we not say (coherently)?[14] I was sure this couldn't be answered without a logic to regiment conflicting opinions (Humans have/don't have free will). Wittgenstein didn't and couldn't answer his own question about the limits of language, because, although adept at alethic logic, he had no conceptual logic. But he did make progress; he pointed out that tautologies, <S & S>, and contradictories, <S & -S>, are not statements; so, they have no truth value, although he back-slid at times; he didn't always distinguish between <S & S> and <S> and <S>, nor between <S & -S> and <S> and <-S>. I interpret his truth table for conjunction as <S & S>. The functor [And] sometimes ends up "in all the wrong places".

My structuralist/relational account of concepts is responds to Wittgenstein's question, consonant with the following interpretation of C. I. Lewis's evocative remark in his *Mind and the World Order,* p. 107.[15]

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14 He was still thinking of this in his *Philosophical Investigations*, #499.   "To say 'This combination of words makes no sense' excludes it from the sphere of language and thereby bounds the domain of language."

15   Charles Scribner's Sons; New York, 1929.

> *All* meaning is relational. (Lewis' emphasis)

In that sentence's context, I interpret it as this rewrite:

> *Words don't have 'meanings', they have relations.*

Don't look for the 'meaning' of lexical, categorematic words; look for their tokens' relations to each other in lexical/conceptual space and for their coherent emplacements from outside that space. [Functor]s relate tokens to each other in lexical space; we use them conjointly to converge on a unique place in conceptual space for each concept/token to give them a unique identity distinct from any other concept. Lewis' remark extends Kant's Revolution; my structural account of 'meaning' extends Lewis' extension, hence, Kant's too.

Yet, Lewis' "intensional" logic is a misnomer; it suggests, but isn't a conceptual logic, although he may have thought it was. His logic is alethic; he embraced the alethic modalities: Necessary, Possible, Impossible. To give an account of [Entail], he replaced Russell's ^material^ interpretation of [If..., then ...] with ^strict implication^. He didn't employ conceptual logic's via attiva modalities--[Enjoined to say], [Enjoined not to say], [Allowed to say], [Not allowed to say]—that I advocate we use to evaluate propositions' coherence value, and, after that, statements' truth value, according to a Coherence Account of truth.[16]

Wilfrid Sellars probably knew Lewis didn't always stick to his relational theory of meaning. In Sellars' "Inference and Meaning" essay, he distinguished between "material" and "formal" inferences. His distinction was intuitive and undeveloped, but he intended it as a wedge between conceptual and alethic inferences. In *Making It Explicit* and recent essays, Robert B.

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[16] I distinguish /sentence/, ^proposition^, and <statement> in *The Logical Structure of Conceptual Coherence 3.0*, and in all my essays. Propositions are interpretations of sentences, their token *rewrites*: /The car is hot/ has token rewrites, ^The car is stolen^, ^The car is popular^, ...

A coherent ^proposition^, ^P^, a rewrite token of a sentence is always a constituent of a <statement> token, <S>. So, the coherence of ^P^, **de dicto**, entails statement ^S^ is coherent. And <S> is true entails ^P^ is coherent, **de facto**, because a sooth proposition is coherent iff it has coherent emplacements, S+P+ or ~P+, which, according to the Coherence Account of truth value, is a necessary condition for statements' truth. Coherent propositions share that condition.

Brandom advances beyond Sellars' "material inference" hints, jumping off from Sellars' observation that humans "give reasons", parrots do not. Brandom writes, "Concepts are essentially inferentially articulated. Grasping them in practice is knowing one's way around the proprieties of inference and incompatibility they are caught up in." ("Toward an Inferential Semantics", p. 89, on his website.) Brandom's informal presentation of some of these "proprieties" are augmented and formally structured in my conceptual logic. It answers his call for "inferentially articulated" concepts with articulated, valid conceptual inference forms. That logic is most fully articulated in *The Logical Structure of Conceptual Coherence 3.0* of which "A Precis of Concepual Logic 3.0" is a shorter version. "On Emplacement" and its extension "Assignments & Varieties of Emplacement" are fundamental monographs. See them on my homesite.

Secondly, I was prompted to develop my basement logic that included the [Assign/Emplace] functor to demystify the persistent 'puzzle' about how language and mathematical system structures could 'fit' reality. That seemed miraculous to Kant (B130 – B156, *Critique of Pure Reason*.) and a host of our contemporaries. "Einstein asked in wonderment, 'that mathematics, being after all a product of human thought independent of experience, is so admirably appropriate to the objects of reality?' " He marvels that our conceptual order is so suited to the world.[17]

Einstein could have freed himself from his troubled "wonderment" by reversing the orthodox order of how we connect language and world. Orthodox analytic philosophers' direction is **Language → World**: Words [Refer to] entities; statements [Correspond to] facts; theories [Represent] or [Model] reality. Reverse that order to **World → Language** by using the [Emplace] and [Assign] functors that have been neglected by most philosophers steeped in decades of 'referring to', 'modeling of', 'representing', and, in common discourse, 'applying' language to the world. Persons who use these terms think the world is cognized by 'applying' labels to it. Saint Augustine

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[17] Quoted from Jim Holt's review of Edward Frenkel's *Love and Math*; *The New York Review of Books*, Dec. 5, 2013, p. 29.

held this view, which was challenged at the opening of Wittgenstein's *Philosophical Investigations*. It's time to read or reread W.'s devastating pages that ordain "lights off" on thinking lexical tokens are names. They're variables. A carpenter utters /hammer/ to his apprentice; any fit hammer will do. When the apprentice hands the carpenter a hammer, he's coherently **emplacing** the hammer into the bosses' /hammer/. The hammer is the world content of /hammer/. Wittgenstein went from the [Refer] functor of his *Tractatus* to the [Emplace] functor of his post-Augustinian *Investigations*.

3b. [Refer] versus **[Emplace]/[Assign]**. As I wrote, conceptual logic turns the cognizing order of the world 180 degrees from its currently prevailing direction. Regnant analytic philosophers go from Language → World. That relation is supported by claiming we use lexical terms "to refer to" and "to apply" them to world items; this direction invites thinking our lexical terms are like names of individuals, of kinds, of substantives and tropes, and of mass entities such as water. I advocate going in the opposite direction, World → Language. [Assign/emplace] the world's substantives and tropes, respectively, into our sentences grammatical subject and predicate tokens suited to and ready to accept them. This is how we give our sentences world content.[18] Also, it enables us to cognize the world, because we incorporate that content into a grammatical, logical conceptual order that underwrites rational discourse. This is Kant's revolution. C. I. Lewis shifted its venue from the mind to language. I shift it to conceptual logic.[19] It's not easy.[20]

[Refer] is one of the philosophic concepts that dominate Anglo-American philosophy; it's gone global. Replace it with [Emplace/Assign], which is nour-

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[18] "...Philosophy is not a quest for knowledge about the world, but rather a quest for understanding the conceptual scheme in terms of which we conceive of the knowledge we achieve about the world...The world doesn't have scaffolding. Rather, in doing philosophy, we come to realize the character of the grammatical and linguistic scaffolding from which we describe the world, not the scaffolding of the world." From James Garvey's "(Peter) Hacker's challenge". *The Philosophers' Magazine*, Issue 51; October 25, 2010. See Wittgenstein's *Tractatus*, 6.124.

[19] See fn. 22, next page. Kant subscribed to this description.

[20] "The great Supreme Court cases turn on the majestic ambiguities embedded in the Constitution. It is not a simple thing to define and apply terms like "the freedom of speech", or "equal protection of the laws", much less explain how much process is 'due'". Jeffery Toobin; *The New Yorker*, March 9, 2015. Note "define" and "apply". To "apply" a 'defined' word assumes the Language → World direction.

ished by conceptual/lexical logic, the basement foundation for all alethic logics. I proved above that neither is reducible to the other. To have public knowledge of conceptual coherence, we need a logically structured **conceptual space** of share-able *sensible* tokens. Nominalism is a methodologically advisable way to create and maintain a cognitive, linguistic community without which there cannot be a civic community rational enough to be contentiously peaceful, something like what Socrates sought in Plato's earlier dialogues. Ask a person born deaf and/or blind about the need for tokens. When the token /W-a-t-e-r/ was writ on Helen Keller's palm while water flowed over her other, she awoke to a conceptual life; she learnt that water could be coherently emplaced in the English token /W-a-t-e-r/!

The world is cognized when it's incorporated into a logical, conceptual structure. Concepts aren't solely data driven, but powered by structures of lang-uages' tokens available for assignment/emplacements of data. To acquire discur-sive knowledge, we pass from sensible data to languages' tokens: "percepts with-out concepts are blind", as Kant would have it in his famous clarifying tag. He, however, misleadingly wrote that we "apply" our language to the world.[21] "Ap-ply" takes us in the wrong direction, yet, he correctly *described* its correct direc-tion: "*conform to* those concepts".[22] I rewrite ^conform^ as ^coherently fit into tokens' places in lexical/conceptual space^. Of course, each token/concept ideally has a unique place in lexical/conceptual space. If a community shares their tokens' places, its members have ideal conditions for successful communication.

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21 *Critique of Pure Reason*, B 150, "On **Applying** the Categories to Objects of the Senses as such". (My emphasis.)

22 In his Preface to the Second Edition of the first *Critique*, B xv –xix, Kant rethinks the relation between concepts and the world. He's still a bit muddled, but he writes pretty clear sentences in B xvii, p. 21 - 22, that shows he accepts the World → Language direction as a "revolutionary" change. "... I assume that the objects, or—what amounts to the same, fn.75—the *experience* in which alone they (as objects that are given to us) can be cognized, **conform to** those concepts (My emphasis)". Rewrite "given to us" as "cau-sed in us". He specifies "those concepts" as a priori; surely naught but a rationalist left-over. I recon-ceive 'a priori' as the leutic [Enjoined] modality, ^[Enjoined to say] A canary is a bird)^ and ^[Enjoined not to say] a canary is a snake)^ that shape the structure of conceptual space. Pluhar, the translator, in footnote 73, p. 22, elides the via passive translation of *Vorstellungen* as if that *word* may be rewritten as ^represents^; he prefers a via attiva translation of it as "something *we do*"; he conceives of it as a functor; he warns us never to translate it as "represent" in the sense of "stand for". *This is very important. Wel-come it. The Critique of Pure Reason*, translated by Werner S. Pluhar; Indianapolis/Cambridge, UK, Hackett Publishing Co., 1996.

Two authors make points germane to my quote from Kant, fn. 22 below, "...the *experience* in which alone they (as objects that are given to us) can be cognized, **conform to** those concepts". First, C. F. von Weizaecher has a closely related remark: "In order to check the truth of our hypotheses, we need to check it with sensory experience that's ordered conceptually." [23] Substitute Weizaecker's "hypotheses" for Kant's "as objects"; it grants a wider scope for contemporary science's substantives--events, processes, acts ... --and their tropes; it also grants the addition of conceptual logic to alethic logic's methodology.

Second, after **^conform to^** in fn. 22, substitute "conceptual structure" for Kant's "those concepts". Brian Greene writes, "...Einstein's genius lay in recognizing that this body of mathematics [Riemann's geometry] was tailor-made for implementing his new view of the gravitational force. He boldly declared that the mathematics of Riemann's geometry aligns perfectly with the physics of gravity". Euclid's geometry was a *linear* conceptual structure in contrast to Riemann's *curved line* conceptual structure. After Einstein published "General Relativity", physicists rushed to see if there was confirmatory sensory evidence for his new theory; it was confirmed when they observed that a ray of light curved around a large celestial body's strong repulsive gravity.

Greene's "aligned" is vague. To be precise, we should say the observed curved light ray was *emplaced* into Riemann's geometrical conceptual system.[24] Elements of our sensory manifold are *formed* by a conceptual structure's sentences and equations. Strictly, they do not passively '**conform** to concepts' as if the elements are already formed into 'facts' independently of a conceptual structure. This doesn't pass muster; it assumes a correspondence account of truth values, which account I prove is incoherent (**3d**). First came Riemann's conceptual, geometrical structure, then came Einstein's proposed coherent emplacements, then came a new physics of space-time and gravity. Einstein inherited all of Riemann's axiomatic geometric structure and by emplacement in it restructured space-time physics.

3c. Names versus variables. According to most current analytic philosophers, we refer when we apply the right *names* to world items. We *apply* a token

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[23] Quoted from a review by Umberto Bottazzini of von Weizaecker's *The Great Physicists from Plato to Heisenberg. Ilsole24ore.com*. Date unknown, probably 2002. (Author's translation from Italian.)
[24] *The Elegant Universe*, p. 231, London, Vintage, 2000.

/bog/ to individual bogs, or 'classes' of them, a token /brown/ to individual patches of brown tropes, or to the 'property 'brown'. This is the **Language → World** direction. /Pick out/ is an oft used expression for /refer/.

[Emplace] & [Assign] go in the opposite direction, it puts the substantives and tropes that cause our sensory data into grammatical sentences' places where lexical tokens reside; this is the **World → Language** direction. The token /bog/ is the **grammatical subject** of the sentence /The bog is wide/; it's a substantive **variable** wherein we may coherently emplace *any* bog. The physical bog then becomes the **semantical subject** of the sentence /The bog is wide/. Similarly, any coherently emplaced trope into the *variable* /wide/ becomes the **semantic predicate** of that proposition. These acts are similar to emplacing numerals in the variables of /a + b = c/, which are place-holders, not 'names' of anything. W.V.O. Quine remarked that "It is the object designated by such a [singular] term that counts as a value of the variable; and the objects stay on as values of variables though the singular terms be swept away." He used "designated", because he still leaned on the habitual, orthodox Word → World direction.

Here's another example of a gold standard, literal emplacement at ground zero: Put your fingernail's finger in the space occupied by the /fingernail/ token; you've coherently emplaced a physical fingernail into the variable, /fingernail/, S+. Now put that fingernail in the space occupied by /pink/. If your nail carried a pink color into /pink/, you've coherently emplaced a pink colored trope, P+. In sum, you've interpreted that sentence and made it into a coherent proposition, because you've coherently emplaced occupants in the grammatical subject and predicate of /My fingernail is pink/, S+P+. At the same time, by the **Coherence Account** of truth value you've verified the truth of the statement, <My fingernail is pink>.

<My fingernail is pink> is false if my hammered, emplaced nail has turned black. Emplacing a black trope into /pink/ is incoherent, because ^pink^ is contrary to ^black^, ^black/~pink^. This entails the statement <My fingernail is pink> is false, because emplacement profile of ^My fingernail is pink^' is, ^fingernail^+ ^pink^)~, S+P~. Its predicate lacks the required P+ of S+P+'s truth condition. Thus, as Plato argued, <My fingernail is black/~pink> *is true*, since its emplace-

ment profile is (^fingernail^+ and ^black/^~pink)+^. In this argument, I used the **Coherence Account** of verified truth value.[25]

Peter Radcliff asked me whether on these competing directions, → and <--, "the world is the same set of items and the only issue is whether to point to an item or emplace it?" Pointing **is** one way of emplacing, usually described as ^ostensive definition^. But a fuller answer is "No", because his question is ontological, the direction of emplacement is epistemological. I understand why he asked that question. It's reflected in Kant's heading in fn. 21. There he uses the wrong term, "applied"; but in footnote 22, he "described" correctly the epistemological conditions for discursive knowledge "that"; ontology is derivative. To succeed, he had to wed percepts to concepts; we do this by conceptualizing the data that appear in our sensory manifolds. Lexical concepts need subject and predicate tokens in token sentences. For the world to be known discursively, we have to coherently emplace the substantives and tropes that cause our sensory data into sentences grammatical subjects and predicates. See footnote 22, p. 21. Recall , the emplaced 'objects' (processes, events, acts ...) and their tropes become the semantic content of sentences' subject and predicate tokens.   Each token has a unique place in a discursive system, a **conceptual/logical space**; its place has identity conditions supplied by that space's eight-fold functor structure. So will every coherent emplacement.

Substantive and trope concepts rely on grammatical subject and predicate tokens into which we coherently emplace semantic subjects and predicates. Conequently, 'facts', 'states-of-affairs', are derivative, don't *exist*, aren't ontological entities until 'percepts' have been coherently assigned or emplaced. Thus, my answer to Peter's question is that 'ontological items' don't exist separately and apart from an epistemological construction—Kant's Copernican Revolution--that took the World → Language direction according to my interpretation in Fn. 22. This is Kantian idealism and the end of ontology as an independent subject matter. Yes, this is revolutionary in relation to the tracts of Kant's time. He couldn't help himself. Since all the world conforms to our conceptual systems, the search for any "in-itself" is wildly incoherent.

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[25] Of course, there's much more to say beyond this ground zero emplacement. See the essay "Assignments & Varieties of Emplacement" on my website.

Here's another example of token *variables*; /dog/ and /brown/, aren't names, just like the token letters in "a + b = c" aren't. Proper names, such as /Elvis Presley/, aren't variables; they have but one coherent emplacement. We get a coherent arithmetical proposition if we emplace /2/ in /a/, /3/ in /b/ to arrive at /5/ in /c/ on the numeral series. Moving to the right (+) in the numeral series starting at /2/, then moving three more places to the right, we end up at /5/. So, we've produced the *coherent proposition* ^2 + 3 = 5^. We can add by emplacing any numerals in that formula's variables. The abacus works this way; we move beads on wires to coherently emplace numerals from our numerical series into a formula with variables, /a + b = c/. What's more nominalistic than wooden beads we're enjoined to move by wire-location functors; it's arithmetic in a 'wired' conceptual space. I shop in San Francisco's Chinatown; abacuses are rarely used now, but in veterans' hands, they add faster than digital calculator titans.

Do not interpret the *coherent proposition* ^2 + 3 = 5^ as a *true statement* any more than ^2 + 3 = 6^ as a *false statement*. Numerals are not world substances nor tropes outside our language that make statements true, but are inside our language, inside our internally o*rdered* conceptual space where coherence of lexical and umeral tokens reign; there no truth resides. This is empiricist fundamentalism! Put away 'childish notions' such as ^a priori true statements^, accept its replacement ^enjoined coherent propositions^.

3d. The Correspondence versus the Coherence Account of Truth. Facts as traditionally conceived aren't true or false by themselves; so, proponents of the correspondence account of truth value say, < If our sentences/statements correspond to facts, they're true, if not, they're false>. This is incoherent. 'Facts' don't have logical functors, sentences do, including negations, conceptual, [~], and alethic, [-]. You're *leutically enjoined not to say* facts ^correspond^ to sentences unless all their parts, including *functors*, correspond. Since statements have logical functors and 'facts' do not, facts don't conceptually 'correspond' to sentences; so, the correspondence account of truth value is incoherent.

Your only move is to accept the **World → Language** coherent assign/emplace direction and the coherence account of statements' truth value entitlements: True, False, Unknown.

I'm not alone; other philosophers have suggested we emplace world items *into* language: [26] *They agreed we cognize the world by carrying world items into our conceptual systems.* Einstein should have noted this, because he unveiled his new physical concepts of space, time, and gravity by fitting them *into* Riemann's pure, curved line geometry, an alternative to Newton's use of Euclid's linear geometry. He incorrectly described what he did. I surmise Einstein had a correspondence account of truth subliminally in mind that fed his wonderment that our statements 'correspond' to the world's' facts'. It's a scandal, but it's over, here, now.

The alternative: Einstein fitted the world's time, space, and gravity into Riemannian geometry's variables, **World → Geometry**, rather than 'applying' **Geometry → World,** as he thought he was doing. With his imagined percepts (he said he theorized visually) assignments into Riemannian structured geometry, he created new concepts of space, time, and gravity. Thus, we learn our conceptual system need not magically 'fit' the world's order to engender truth. Instead, our assignments fit the world into Riemann's conceptual geometric system. Observations—light bending around a star--gave observers coherent, perceived emplacements that verified Einstein's imagined assignments and, thence, his computations.

Napoleon came closer to my view than Einstein did. Talleyrand urged him to "try to make those conquered learn to love France". Napoleon's reply: "*Amer.* I don't really know what this means when applied to politics". He didn't think the concept ^amer/love^ had coherent relations with polict-

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26 I believe that in spite of all its snowfields Mont Blanc is a component part of what is actually asserted in the proposition "Mont Blanc is more than 4000 metres high".
--Bertrand Russell (Letter to Gottlob Frege)

Russell's analysis of the proposition expressed by "John is tall" provides us with two components: the property expressed by the predicate is tall, and the individual John. That's right, John himself right there, trapped in a proposition.
 --David Kaplan ("Dthat")

It is rather the object designated by such a [singular] term that counts as a value of the variable; and the objects stay on as values of variables though the singular terms be swept away.
--W. V. O. Quine

ical^ concepts. He could have said it this way: Love of France can't be *emplaced* coherently into sentences whose other concepts are political concepts or are bonded to them.[27]

Our sensory responses are way stations in electromagnetic transmissions from world events via electro-chemical energy to the bio-neurological conceptual systems in our brains. World → Language is the cognitive route. But Kant, accepted the standard order of connecting words 'to' the world; he said concepts are "*applied to*" "objects of experience", Language → World (B146f, first *Critique*). His way of characterizing discursive cognition hindered acceptance of the reverse direction I advocate. He didn't fully characterize how radical his Revolution was; his excessive machinery obscured it. I rethink it via C. I. Lewis with the advantages conceptual logic provides us.

We discursively cognize *from* the world *into* language, wherein resides logical conceptual space, by coherently **emplacing** the causes of sensory data in our sensory manifold *into* sentences' subjects and predicates. Russell, Kaplan, and Quine did the right thing: In his "Apply" mood, Kant forgot half of his famous tag line: "Concepts without percepts are empty". This advises us to emplace our percepts and imagined percepts into substantive's and trope's lexical tokens in order to fill their variables' vacuity. The other half of that tag, "Percepts without concepts are blind", says percepts outside a conceptual system are "blind"; by themselves they give us no discursive knowledge. Inside a conceptual system, Kant's percepts are cognitively cuddled by the conceptual structure residing in our gray matter.

Quine *emplaced* values into variables: /1/ into /a/ of /a + b/. But he, like Kant, *misnamed* "values" entry into variables, whether logical or mathematical,

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[27] Napoleon's remark is quoted from Duncan Kelly's review of Andrew Roberts' *Napoleon, a Life*; *New York Times Book Review*, 11/16/2014. Napoleon's empire was brief, he didn't learn from the Roman conquerors who did just what Talleyrand urged Napoleon to do. Rome's empire was centuries long. The American empire dates rather briefly from 1945.

28 "... I assume that the objects, or—what amounts to the same, fn.75—the *experience* in which alone they (as objects that are given to us) can be cognized, **conform to** those concepts." (My bold emphases.)". Quoted from the Kantian footnote , fn. 22, page 16.

because he used [Designate] instead of [Emplace]. Quine kept to the 'referring' terminology of his era's *Zeitgeist*, the Word → World direction. Categorematic lexical tokens, except for proper names, are variables awaiting multiple coherent substantive and trope emplacements. He did not realize that when we literally emplace an **e**mpirically observed numeral 'value', /1/, into the variable /a/, that act was similar to when we emplace an observed book into the token variable, /book/; both acts move in the World → Word direction. Still, like Kant, he came down on the right side in his description: "It is rather the object designated by such a [singlar] term that counts as a value of the variable; and the objects stay on as values of variables though the singular terms be swept away". I rewrite this as <The emplacements in sentences terms "stay on" though the variables "be swept away">.

My elaboration of Russell, Kaplan, and Quine's emplacement views extend Kant's Copernican Revolution. With conceptual logic, I introduce new epistemological concepts and logical methodology to replace current analytic philosophy's unfit, limited tools, which provide new ways to resolve time worn controversies bequeathed us by an alethic logic canon aimed in the wrong direction that have dealt us unremittingly inconclusive results.[28]

Conceptual systems change constantly; they aren't static a priori systems. Antiquated concepts drop out of or are replaced in conceptual spaces all the time. Mark Lance's query in the Leiter Reports blog, anno 2015: To which area of our conceptual system would you assign ^race^'s tropes? The

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[28] See essays on my homesite that set old controversies in a new light under the aegis of conceptual logic. The Conceptual Square's valid inferences underwrite the validity of the Alethic Square's inferences. The Conceptual Square's valid inferences underwrite the validity of the Alethic Square's inferences. The contradictory and praxis interpretations of the Categorical Imperative are superannuated in both places. See on my homesite, "Two Squares of Opposition".

Not included on my website is a coherence account of Kant's Categorical Imperative. I show the contradictory and praxis interpretations of the Categorical Imperative are superannuated in two places. One version is in *Life and Morals*, Chapter 10; A. K. Bierman; New York, Harcourt Brace Jovanovich, 1980. The other is in *The Critical Thinking Handbook*, Chapter 16; A. Bierman and R. Assali; Upper Saddle River, NJ, Prentice Hall (1996). The latter has the better presentation of Kant's Categorical Imperative as a conceptually grounded imperative, but the former is embedded more deeply in Kant's moral theory.

^biological^ or ^ethnographic^? "William Safire wrote that the Old English word 'spin' ("To whirl") had come by the 1950s to also mean 'to deceive'". [29] "As used by the media these days, "populism" is synonymous with "pop-ular outrage". Wrong!... Genuine populism organizes around people's deep yearning for our nation's most fundamental and *positive* values: Economic fairness, social justice, and opportunity for ALL." So sayeth Mr. Hightower in *The Hightower Lowdown* (Austin, TX , June 2016).

3e. Alethic Logic's Quantifiers versus Conceptual Logic's [Any]. The following remarks about [**Any**] will be useful for understanding why it has logical priority over the quantifiers in the Alethic Square's statements, and, if there, it has priority over all sooth statements' quantifiers. Conceptual logic's [*Any*], [*A/An*], and [*The/Singular*] underwrite, respectively, the quantifiers [All]-[None], [Some], [One]. The following three uses of [Any] come from Zeno Vendler's *Linguistics in Philosophy*, Chapter 3, "Each and Every, Any and All". (Ithaca, NY, Cornell University Press, 1967.) I explain below how the **Conceptual Square of Opposition**'s valid inferencess underwrite the **Alethic Square's** valid inferencess. I say more about the relations between the Squares in "Two Squares of Opposition" on my website: "Two Squares of Opposition".

> **COLLECTIVE**: The collective use of [Any]] coherent emplacements into a
> subject, versus [*All]*, /Any *adult beaver* swims well/~well/, whose moda-
> ity is [Allowed to say], guarantees a contingent truth value for A, <[All]
> adult beavers swim well> and for E < [No] adult beavers swim well>.
> Using [Any] we don't have to specify how many there are in a class of
> adult beavers, nor need we specify past and future ones.
>
> **DISTRIBUTIVE**: This [Any] use, [**A/An**], is *indefinite, one or another* coher-
> *ent* emplacements into a subject: [Any|A/An] *gun* will do. The distribut-
> ive use of [Any] underwrites the truth value of I and O [Some] statements.
> Collective and distributive uses of [Any] allow us to dispense with "class",
> "set", "some member", and "all members" for categorical AEIO alethic
> statements.
>
> **SINGULAR**: [The] is singular. A singular proposition is coherent iff the count

[29] Quoted from Michael Beschloss' review of David Greenberg' *Republic of Sin*; p. 13, New York Times Book Review; January 24, 2016.

of coherent emplacements into two similar or dissimilar terms is one and
the same. The proposition ^Mark Twain [=] Samuel Clemens^ satisfies
the one count; so, each may be used interchangeably in coherent singular
propositions; it entails *one-count* emplacement/assignment coherences for
^Mark Twain wrote *Huckleberry Finn*^ and ^Samuel Clemens wrote
Huckleberry Finn^, as well as the truths of their allied statements, <Mark
Twain wrote ...>.

A – C Chart
The Two Squares: A̲lethic – C̲onceptual Chart

Extensional Alethic Statements	Conceptual Version	Assign/Emplacement Coherence	Truth Value
A: <All S is P>	^[Any] S is P^	S+ P+	True
E: <No S is P>	^[Any] S is ~P^	S+ ~P+	True
I: <Some S is P>	^[A/An] S is P^	S+ P+	True
O: <Some S is ~P>	^[A/An] S is ~P^	S+ ~P+	True
S: <Only one S is P>	^[=] S^1 & S^2 is P or ~P	S^1+ = S^2+, P+ or ~P+	True

This **A – C Chart** shows that a conceptual version of the Square of Opposi-
tion is the basement logic for the Alethic Square. The three right columns of that
Chart show the Conceptual Square's inferences underwrite the validity of the
Alethic Square's inferences. The second column is a conceptual rewrite of the first
column, dropping the set/class quantifiers and substituting Vendler's three uses of
the [Any] functor.

The traditional Alethic Square's corners are occupied by AEIO *categorical
statements* that illustrate their truth value relations. Conceptual *propositions*, too,
occupy the Conceptual Square's corners but illustrate their **coherence value** rela-
tions. Its four propositions use the [Sooth, **.**], [Emplacement], and [Counter, ~]
functors, plus Vendler's three different uses of the [Any] functor. The Conceptual
Square underwrites the validity of the 'traditional' Alethic Square's "immediate
inferences", because basement logic takes us beyond intuitive appeals to justify the
validity of the traditional Alethic Square. The validity of the Conceptual Square's
inferences relies (a) on coherent emplacements in propositions, the third column in
the **A – C Chart,** and (b) on the Coherence Account of truth values—Coherent
propositions entail its companion statements truth-- to establish the validity of its
alethic counterpart's immediate inferences.

In the **Conceptual Square**, the ^S^s and ^P^s are, respectively, *concepts* of substantives and tropes that replace the extensional interpretation of categorical statements' *classes* and *members*. Conceptual Square's *propositions* are more basic pre-writes of the Alethic Square's *statements*. They're intermediate between sentences and statements: /.../ → **^...^** → <...>.

The collective [Any] in A & E, the distributive [A/An] in I & P, and the singular, [Only one], are restricted to a [Sooth] modal interpretation of their copulas. It's the only copula functor that modally *allows* coherent [Emplacement/Assignment] of tropes into both /P/ and /~P/ of a subject's predicates. That's why coherent allowed propositions underwrite the contingent alethic truth evaluations of the Alethic Square's statements.

The seven via attiva structural functors have [*Enjoined*] modality: [Subsume, **/**], [Link, *****], [Bond, **:**] (^bird^ ^winged^^), [Conger, **:+**] (a conjunction of bonded propositions), [Identify, **=**], [Counter, **~**], [Emplace, **E...E @ /.../**] (p. 6). Different enjoined functors, such as [Link] and [Bond], relate concepts differently in *propositions*, which have coherence but no truth values. The advisory via attiva ^[Subsume] ^animal^ ^dog^^ **is not an A** statement. Itt advises you: You're enjoined to relate these two concepts by [Subsume**s**]. The via attiva advisory functor is [Subsume], its via passive mate, [Subsume**s**], reports. The via passive has an /**s**/, the via attiva doesn't. Via passive *statements* report on the internal positions and relations of their constituent concepts' in lexical space, as in <^Animal^ subsume**s** ^dog^>; <^Dog^ subsume**s** ^terrier^>; <^Terrier^> subsume**s** (your beloved) ^Scottie^>, if he's emplaced in /Scottie/.

Internally enjoined propositions aren't eligible for use in the AEIO Conceptual Square, because that Square's propositions use only the modally *allowed* functor to relate substantive and trope concepts. The sooth functor *allows* you to say /Mary's tired/ and /Mary's *not* tired/; both are coherent; but you're not allowed to say /Birds *aren't* winged/, because you're *enjoined* to say they are. ^[Bond] Birds are ~winged^ is incoherent.

The collective [Any] rewrite of the alethic [All] is existence-neutral, because it's a functor for conceptual coherence relations, not for extensional 'truths' about sets, classes', and members relations. Russell thought /[All] members of a class/ make no existence demand; there are empty classes. Peter Strawson thought A-categorical statements require existing members: If Tony has no children, his statement that <All my children are asleep> is incoherent/'meaningless', hence, has no truth value.

I deal with their differences in "On Emplacing", the successor of Russell's "On Denoting" and Strawson's "On Referring" (See my website.) Suffice it to note here that Russell was designing a logic suitable for pure mathematical systems and Strawson was designing one for some natural language inferences that require the existence of substantives and tropes. They were after different game, hunters passing in the night.

Tom Burke points out that Russell, who wrote a dismissive, critical review of John Dewey's *Logic: The Theory of Inquiry*, didn't suffer other kinds of logic than one suitable for proving theorems of pure mathematical and logical systems. "Dewey was developing a truly alternative conception of logic. Rather than basing a theory of semantics on structures consisting of fixed universes of individuals with properties and relations handled purely in terms of extension in this given universe, Dewey develops his logic in terms of a different array of basic ideas".[30]

The Larger Context of Conceptual Logic

My work on conceptual logic is part of a larger project I described in *The Philosophy of Urban Existence: A Prolegomena*.[31] There I wrote, "The supreme end of philosophizing is the creation of community." (p. 175) That book came out of an inquiry about how we may unify cities' neighborhoods presently divided by race, income, diverse immigrant histories, blue collar

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30 Tom Burke, *Dewey's New Logic: A Reply to Russell*, p. 177; Chicago, University of Chicago Press, (1994).
31 A. K. Bierman, *The Philosophy of Urban Existence: A Prolegomena*; Athens, OH, Ohio University Press (1973): "*Being a tract on the Good Life, Concinnation, The One and the Many, City-States (Now), The Creation of Persons, Immanence and Transcendence, Understanding, Moral Power, Sense of Community, Neighborhoods, Justice and Tolerance, Points of View, The Arts and Their Detrivialization, Urban Dialectic, Work, Leisure, and an Art Force.*" This is the theory of how the arts can help turn culturally different neighborhoods into unified cities. That cities have one government isn't enough to unify neighborhoods. In fact, they often cause of fractures.

versus professional employment or versus artists' quarters. There are murals in San Francisco's Latino neighborhoods but not on rich, reserved Pacific Heights' brick walls. The denizens of each are largely cultural strangers to one another; they seldom mix. How can our cities become communities, be-come integrated, made one and whole, unified with mutual acquaintance and understanding? In short, how can divided living quarters in cities be transformed into commingled cities? In the *Prolegomena*, I showed how we may learn to appreciate and understand the different *affective* lives of city stran-gers via the arts. They can contribute to a more unified city. My philosopher correspondent, Laurence Goldstein wrote me, "You've superseded Plato's *Republic*". Well ... ?

The *Prolegomena* was not merely speculative. I'd initiated the establishment of the Neighborhood Arts Alliance and its installation in San Francisco's governing structure within its Arts Commission. I conceived of the Alliance as an art force. The idea was to create a circuit for the exchange of neighborhood produced arts between all other San Francisco neighborhoods. That was too successful; it scared the establishment. The staff was fired and a more pliable, drastically reduced staff was hired in their place. A stub of it remains for renewed adventures down the line. A saving grace was the federal government's Humanities and the Arts' support of similar activities in many other US cities that are ongoing. See the Appendix of the *Prolegomena* for details on this venture.

In a projected *Epilogue*, I plan to explain how shared concepts make a *cognitive* contribution to cultural unification. The philosophy behind that needed a conceptual logic to show what we must and can do to acquire conceptual unity, shared conceptual spaces.

These days, 2016, there's little talk of the "common good". Different groups have different interests, including neighborhoods; they compete for goods available from the tax base, which crowds out the "common good". In this essay, I've sketched what it's like philosophizing toward shared conceptual travel. It shifts the ground of public discourse; in current patois, it's a "game changer". A large part of this new logic exists on my home site for

subject/predicate sentences, but it needs to be extended to include relational sentences. I've begun work on it; it's hard work on a largely neglected philosophical topic. Remember where work stopped on *Principia Mathematica*?

My choice of /coherence/ as the evaluative term for conceptual logic wasn't casual. It's basic to the concept of ^unified^ cities. *The Synonym Finder* under the /adhere/ entry lists physical alternatives: cling, cleave, cohere, attach. Shaking hands, embracing, air kisses to far cheeks, copulation, the "animal with two backs", are unifying. However, these won't do for *cognitive coherence*, because it relies on language for its existence. I argued above for the via attiva metaphor of ^travel^: We unify propositions' concepts by *traveling* coherently *between them* in lexical space, just as travel between two towns count as *one* trip. When citizens travel on the same routes between concepts, they're cognitively unified.

But often we do not so travel. The deeply riven 2016 presidential election in the USA shows we need to repair our lexical space. President Lyndon Johnson understood this when, during the fight for civil rights, he asked senators, congress persons, and US citizens: *Let us reason together*.

To heed his request, I suggest we establish circuits of *Socratic Centers* in cities' neighborhoods, mini agoras where citizens can strive for conceptual community, strive for the ^common good^, and help us eliminate shallow, divisive opinions. This was Socrates's unpopular mission: He asked fellow citizens to 'define' their concepts: "what is" piety, truth, knowledge, justice. By reasoning with them, he revealed to them how little they knew. We owe Plato's conceptual hero our communal efforts to achieve in our cities what he, in his lonely mission, failed to achieve in Athens. Its city powers wanted to be rid of the gadfly whopublicly humiliated them by exposing their conceptual ignorance. They offered him exile or the hemlock. He couldn't bear the thought of exile from his conceptually impoverished city. With whom and to what purpose could he reason about the common good for his natal city while exiled elsewhere?

San Francisco
31 July, 2016