Building a house with pieces of matter and tools with plans in mind is not the house. Nor is a logic the same as the process of mindfully configuring it with pieces of matter that are physical, linguistic tokens.

Mostly from “A Precis of Conceptual Logic”

1. Hans Reichenbach writes, “I must turn now to a discussion of Russell’s theory of types... It is the basic idea of this theory that the division of linguistic expressions into true and false is not sufficient; that a third category must be introduced which includes meaningless expressions. It seems to me that this is one of the deepest and soundest discoveries of modern logic.”

Russell’s paradox: Common sense suggests that some classes are members of themselves (e.g., the class of all classes), while others are not (e.g., the class of philosophers). Let R be the class whose membership consists of exactly those classes of the latter sort, i.e., those that are not members of themselves. Is R a member of itself? If so, then it is a member of the class of all classes that are not members of themselves, and hence is not a member of itself. If, on the other hand, it is not a member of itself, then it satisfies its own membership conditions, and hence is a member of of itself after all. Either way there is a contradiction. (The Cambridge Dictionary of Philosophy, General Editor, Robert Audi, University of Cambridge, 1995.)

Reichenbach provides a logical reason for a statement to be meaningless. Conceptual logic provides a logical reason for ^This nail is a citizen of Kos^, even though it’s not a paradox.

2. “All reasoning is nothing but the joining and substitution of characters, whether these characters be words or symbols or pictures.”

G. W. Leibniz

3. Conceptual logic is the ur logic that underwrites alethic logic and truth value, and is a supplement to it. Coherence values, coherent and incoherent, are the terms I use to evaluate propositions, which are interpretations of sentences, whereas we use truth value terms, true and false, to evaluate statements. Both logics include the entitlement value unknown for judgments of truth and coherence values.

Here’s a proof that neither truth nor coherence logic is reducible to the other.

Only one of a pair of contradictory statements is true.
Both of a pair of contradictory propositions are coherent. Both ^Jack is tired^ and ^Jack is not tired^ are coherent.
One | 1 \[=\] Two | 2.

Hence, "truth value" \[=\] "coherence value".

Any expression between slash quotation marks, /sentence/ and /word/, is a physical token—inscribed, spoken, signed, ... . Any expression between caret marks (^...^) is an interpretation, a token rewrite, of another token. Statements reside between angles, <...>; they are tokens conveying truth or coherence claims.

/Sentence/ \[\rightarrow\] ^proposition^ \[\rightarrow\] <statement> are distinct, ordered token expressions.

Since /hot/ has several interpretations/rewrites (hot/boiling, hot/stolen, hot/ fast...), we may have to rewrite /The car is hot/ to identify the proposition we intend--^The car is stolen^.

We can make statements only with coherent correlative propositions. Incoherent propositions deprive their correlative statements of truth value: ^The blueberries are dreaming^ deprives <The blueberries are dreaming> of truth value. This is one reason why I claim conceptual logic is ur to alethic logic. ^Conceptual logic^ identifies valid inferences between propositions just as ^alethic logic^ identifies valid inferences between statements.

4.

Antonio Gnoli: Fissiamo qualche dettaglio. Nei primi anni l’Adelphi fa dei bei libri ma prevale la sensazione di una raffinatezza fine a se stessa: un piccolo club per pochi elleti.

Roberto Calasso: Non so che cosa possa voler dire “raffinatezza fine a se stessa e certamente si tratta di una categoria che solo i più stolidi avrebbero potuto applicare ad Artaud. (My emphasis; La Repubblica, 15 marzo, 2013)

5.

Because concepts are categorematic lexical tokens within the structure of lexical space, I call mine a structuralist account of concepts. In the following quotation, I substitute /tokens/ for /mathematical objects/.

“The idea behind the ‘structuralist view’ of (mathematical objects/tokens) is that such (objects/tokens) have no more of a ‘nature’ than is given by the basic relations of a structure to which they belong.”

Conceptual/lexical space is a two-dimensional structure we construct with functors. Each functor lexically enjoins or allows different lexical conditions for coherence. Concepts have no more ‘nature’ than what is given them by their functors.

6.

Ongoing isomorphism in our lexical structure is all we need for mutually satisfactory cognitive communication.

7.
My project is deeply antithetical to Quine’s summary remark, which could serve as an anti-epigraph to this essay.

“When the cleavage between meaning and reference is properly heeded, the problems of what is loosely called semantics become separated into two provinces so fundamentally distinct as not to deserve a joint appellation at all.”

W. V. O. Quine, “Notes on the Theory of Reference”

This a deeply dualistic view of meaning and reference. I do not subscribe. Neither do Bertrand Russell nor David Kaplan. There is a ”joint appellation” and it’s called ”coherence conditions”, and Quine could have welcomed them as a confirmation of his strictures against analyticity and the utility of alethic modal logics.

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. [I prefer “lodged in”.

--David Kaplan, “Dthat”

One scientist has created a sensor that transmits visual information via the tongue. Sounding remarkably like E. H. Gombrich, he says, “you don’t see with your eyes, you see with your brain.” [Our eyes are but a part of the transmission route that turns light waves into images.

--Art in America, 2008

Thynkyng and dooyng are closyer than you thynk.

--Fanebius Perlyng

8.
Treat [Refer] as a functor; referring is something we do, as when we [Assign/Emplace] substantives and tropes, hoisting them into language, conceding nothing to ‘representation’ as Wittgenstein conceived it in his Tractatus, 2.18.
“2.18 What any such picture, of any form, must have in common with reality to be capable of representing it the way it does—rightly or wrongly—is logical form, that is, the form of reality.” (Daniel Kolak’s translation.)

He didn’t realize that ‘logical form of reality’ is incoherent; only language has a logical form. Nature hosts oppositions but no negations; it hosts neither [~] nor [-]. Languages’ logical forms have priority, after which we fit ‘reality’ into that logical form, rather than vice versa. W.’s ‘logical form’ of reality can be engendered only by assignment/emplacement of substantives and tropes into sentences subject and predicate tokens, which do have logical form. He was led astray by the dualism of similars in his description of ‘picturing’ (picture/language and pictured/reality), which leads philosophers all too guilefully to seize on ‘correspondence’ as the grounds for the truth or falsity of statements.

9.  

<God exists> should be conceived as ^God @ /God/>. Thus, <God exists> is not a statement, but an emplacement that has to be evaluated as coherent or incoherent. This is a better way of expressing Kant’s denial that /exist/ is a predicate. Lacking a predicate, /God exists/ must be given another reading, as here. Obviously, you can’t emplace god in /God/ as you can emplace a dime in /dime/. How do you show there is a being, god, that you’ve coherently emplaced in /God/? Anselm’s argument is a lexical ballet that can never discern the dancer from the dance. Classical arguments for God’s existence, as in Thomas Aquinas, are transcendental arguments whose only outcome can be a conceptual conclusion, never an existential emplacement.

10. There are three grounds on which the coherence of propositions rests: De dicto, de facto, de jure. **De dicto grounds** are shared travel routes between concepts in lexical space by a group who speak the same language. **De jure grounds** are those deliberately chosen, as the discovery of DNA led biologists to choose DNA features as a means of classification over morphological features. **De facto truth value** is the ground for the coherent value of sooth propositions via the siring relation between truth and coherence values.

Here is the form of a de facto ground:

<<[.] S  P> is true> --} <<[.] S  P^ and ^[.] S  ~P^ are coherent>.

A true statement **sires** the coherence of ^[.] S  P^ and ^[.] S  ~P^:

^Tooth @ /tooth/ & E(tooth)white @ /white/> --} ^[.] tooth  white^ and<[.] tooth  ~white>.

Here’s another example, simplified:

<< G. Washington was the first president of the United States> is true> --}  
<^G. Washington was the first president of the United States^ is coherent>.
The “verifiability” slogan of logical positivist’s popular version of a truth-conditions theory of meaning from the 1920’s on approximates my siring relation between truth and ‘meaning’.

11.
Here’s the hypothetical **Leutic Imperative**.

(a) If you wish to be understood by speakers who travel within a lexical system, travel only on their coherent enjoined and allowed via attiva paths.

(b)

(i) If a coherent proposition becomes incoherent when at least one of its concepts is negated, we’re enjoined to travel on the path it tends and are enjoined not to travel on the path that the propositions with the negated concept(s) tend.

(ii) If a coherent sooth proposition derived from a link proposition does not become incoherent by negating either or both of its concepts, we’re allowed to travel on the paths tendered by the sooth propositions with any combination of negated [~] and not negated concepts in that link range of concepts.

[(b) (i) and (ii) are used to prove the leutic status of each functor used in conceptual logic. They were proved in 3.0.]

12.
Conceptual logic plays a parallel role in reasoning about concepts that truth logic plays in reasoning about statements. As valid inferences of truth logic preserve the truth of premises in the conclusion, so do valid inferences of conceptual logic preserve the coherence of premises in the conclusion.

13.
A logic different from any alethic logic needs new functors, that is, new ‘logical constants’, new grammar, new evaluations ^coherent/incoherent^, new valid inferences; a new structure in lexical space solicits new symbols, as in 12. - 15.

S - Substantives, objects, events, processes are eligible for emplacement/assignment in /S/ tokens.

P, Q - Tropes--‘properties’--are emplacement candidates into /P/ tokens. ‘Relations’ are not tropes; they’re functors we use to order the terms in 2term+ propositions.

[F] - Functors are interpretations of the copula; an advisory for conceptual travel in the via attiva mode, a relation in the via pas-siva mode. There is one conceptual monary functor, [Negate, ~], and eight binary functors, nine if we count [Assign] and [Emplace] as two.

C - Categorematic concepts reside in propositions and statements; each has a unique place in lexical space. Here, I present
inferences with but one subject term, but not for 2Term+ ‘relational’ sentences, propositions, or statements as in /Gus stole hats/. I made suggestions for 2Term+ ‘relational’ sentences in Conceptual Logic 3.0 and enlarge on this in my essay, “More on Leutic Modality and ‘Relations’”, in preparation. See the website http://philosophy.sfsu.edu/philosophy/page/arthur-bierman.

14. Quotation Marks and What’s Between Them

/…/ A token word or sentence, a physical entity.

“…” A type word or sentence; any physical token, /hot/, coherently emplaceable into a type, into, for example, into “hot”.

^…^ An interpretation/rewrite. A concept is a word’s interpretation; a proposition is a sentence’s interpretation. Interpretations are similar or dissimilar token rewrites of words and sentence tokens.

<…> A statement, a truth value affirmation or denial of a statement after a sentence token has been interpreted as a proposition/rewrite.

E…E A substantive may be emplaced in a subject token; a trope may be emplaced in a predicate token: ^E…E @ /…/^

[...] Braces distinguish functors from concepts, sentences, propositions, statements. [Assign] and [Emplace] are functors; so are [Subsume], [Link], [Negate], [...].

{C1…Cn} A link range of incompatible concepts subsumed by an adjacent concept. A subsuming concept is adjacent if it does not subsume any concepts intermediate between it and concepts in the range. ^Red^ is adjacent to ^{scarlet crimson coral …}^. Many conged concepts have shifted from morphemic to genomic concepts for classification in the life sciences.

[15.

FUNCTORS

[Subsume, /] [Bond, :) [Conger, :+] [Assign/Emplace, E…E @ /…/

[Identify, =] [Link, ^] [Sooth, .] [Counter/Incompatible, !]

These functors are travel advisories, routing functors; we advise each other on the routes to take, if we want to travel coherently with them, on the
same paths between concepts in lexical/conceptual space, and if we want to construct coherent propositions in tandem with fellow travelers per the Lexical Imperative.

When we speak, listen, or read, we’re traveling in conceptual/lexical space, using language in the via attiva mode. Each of these eight functors also furnish different but complementary ways to converge on and identify a concept’s unique place in conceptual space. On the other hand, when we talk and think about them, we report our travel. This is the via passive mode. This is a major distinction; it dissolves ancient, fruitless controversies—the validity of oblique discourse is an example—many of which arise from logicians speaking and writing in the via passive mode.

Functors are syncategorematic; with them we advise each other on which of our eight functors’ routes between categorematic concepts we propose we may coherently travel between substantives → substantives, tropes → tropes, and substantives → tropes in lexical space. I prefer the metaphor of travelling in lexical space from one concept to another as the way to connect these concepts into different, unary propositions vs. the chemical composition metaphor favored by the prevailing analytic schools. Travel is more apt for our via attiva conceptual activity than being told a sentence’s meaning is composed of its terms’ meanings; the composing metaphor is a Haggis theory of sentence meaning.

Concepts and coherent routes between them are relatively stable in lexical space but none are exempt from erasure and replacement. We add new concepts and assign each to its own unique place all the time, deliberately as well as unconsciously. This requires altering our advisories for coherent travel in lexical space. Think of the classification changes in biology since the discovery and mapping of DNA, which superseded morphologically based travel paths between concepts. See pp. 11–15, “A Precis...”.

16.

**Leutic Modalities**

The Leutic via attiva leutic modalities are: Enjoins us to, Enjoins us not to, Allows us to travel from one concept to another. They’re travel advisories. With them we advise our interlocutors, and they us, to travel on so and so paths between Ss and Ss, Ps and Ps, and Ss and Ps. Conceptual logic allows us to dispense with the via passiva alethic modalities—necessary, impossible, possible—and replace them with leutic modalities.

I adopt travel in lexical space as a metaphor friendlier toward a via attiva approach to the study of language and its logics than is the compositional, part-whole metaphor. They’re different ways to limn how we make propositions out of
concepts; the travel metaphor invites a role for functors to advise us how to travel coherently between concepts in lexical space in our proposition-making adventures. This is an advantage over the composition metaphor: Without via attiva speakers writing and speaking—Saussure’s la parole—there would be no via passive—his la langue—that linguistic scavengers seek in the midden of speakers’ spokens and writtens to reveal the underlying conceptual structure of a language system. These are your leutic modal advisories:

[I] [Enjoined to] travel from one concept to another in lexical space per this routing advice, for example, ^[Subsume, /] soil  loam^.

[I~] [Enjoined not to] travel from one concept to another in lexical space per this routing advice: ^~[Subsume, /] soil  wind^.

[A] [Allowed to] travel from one concept to another per this routing advice: ^[.] soil loam^ & ^[.] soil ~loam/clay^.

Note that [Subsume] is via attiva, advising, an act; [Subsume[s]] is the via passive we use when we’re reporting past lexical acts. The only [Allowed to] functor is [.]; all the others are [Enjoined], which I proved in Conceptual Logic 3.0.

Leutic Transformations

Leutic transformations are similar to standard alethic and deontic transformations, all effected by moving negation, left or right, across modal symbols. I use conceptual negation [~] rather than [-] in my report on leutic transformations of copula functors. Similar transformations apply to both [~] and [-].

[A] = [~I] You’re allowed to = you’re not enjoined not to

[A~] = [~I] You’re allowed not to = you’re not enjoined to

[~A] = [I~] You’re not allowed to = you’re enjoined not to

[~A~] = [I] You’re not allowed not to = you’re enjoined to

Foul adj (smell, food, temper, etc) cattivo(a); (weather) brutto(a); (language) osceno(a) || (SPORT) fallo || vt sporcare; foul play (LAW): the police suspect ~play [la polizia sospetta un atto criminale]

Una voce dal Dizionario Inglese Tascabile (HarperCollins, 2002)

Estensione–intensione, binomio che sta alla base della teoria logica del significato delle espressioni linguistiche. Mentre l’intensione di un costrutto linguistico è il concetto che tale costrutto si propone di suscitare o de fatto suscita nel pensiero di che legge o ascolta, l’estensione il riferimento oggettuale esterno delle espressioni linguistiche. L’estensione di un termine individuale, per es. un
nome, e’ l’individuo concreto da esso indicato. L’estensione di una proprietà e’ la classe o insieme degli oggetti che portano quella proprietà. L’estensione di una proposizione e’ il suo astratto corrispondere o non corrispondere ai fatti (il suo valore di verità’). Strumento principe della teoria dell’estensione e’ l teoria delle classi e degli insieme. E’ indubbio che I methodi della logica contemporanea sono fondamentalmente extensionali, che una soddisfacente teoria general dell’intensione non e’ ancora disponibile e infine che certe parziali e interessanti teorie intensionali proposte, per es. logiche modali...ammettono interpretazioni di carattere estensionale. Il predominare dell’estensionalismo e’ attribuibile al fatto che nella scienza modello del procedere razionale, la matematica, l’intensione non ha mai svolto un ruolo di rievo. (Bierman’s enfazi) Enciclopedia di filosofia, Garzanti; La nuova edizione 1993

collection. (1) The ideas and associations brought to mind by an expression (used in contrast with ‘denotation’ ...). (2) In a technical use, the properties necessary and sufficient for the correct application of the expression in question.

denotation, the thing or things that an expression applies to; extension. ... In a second use, denotation is the semantic value of an expression. Sometimes the denotation of a general term is said to be a property. This occurs when the denotation-connotation terminology is used to contrast the property expressed with the connotation. Thus ‘persistent’ and ‘pig-headed’ might be said to denote the same property but differ in connotation. (The Cambridge Dictionary of Philosophy, General Editor, Robert Audi; Cambridge (GB), University of Cambridge, 1995)

meaning. ...Literal meaning is the non-figurative, strict meaning an expression or sentence has in a language by virtue of the dictionary of its words and the import of its syntactic constructions...A fundamental element of a theory of meaning is where it locates the basis of meaning, in thought, in individual speech, or in social practices. (Audi)

concept 1 (filos.) Ciò che la mente intende e comprende e conclude per mezzo della osservazione reflessione e induzione: avere – di liberta’, di giustizia; sono le lingue...ministri dell’uomo... 2 est. Pensiero, idea, nozione: esprire, formulare, afferrare, spiegare un --; (Il Nuovo Zingarelli: Vocabolario della lingua Italiana di Nicola Zingarelli, Undicesima edizione, Bologna)

concept, genericamente, un contenuto od oggetto mentale...Nel pensiero modern, l’identification del concetto con l’universale e’ proprio di Kant, il quale oppone il
concetto alla “intuizione” (rappresentazione singolare). Per Kant, l’intuizione è’ funzione della sensibilità’ e il concetto e’ funzione dell’intelletto o del pensiero... La distinzione fondamentale è’ poi fra concetti empirici e concetti puri (o “categorie”: Nella logica tradizionale invece, a partire dall’ scolastica medievale, con “concetto: s’intende ogni termine componibile can altri a formare un giudizio; e il concetto è’ da distinguere tanto dalla cosa che esso rappresenta quanto dalla parola con cui venga espresso... Nel pensiero contemporaneo, da Ch. S. Peirce e G. Frege in poi, si considerant queste question nella teoria del significato. (Bierman’s enfazi) Enciclopedia di filosofia, Garzanti; La nuova edizione 1993)

19.

The Vertical and Horizontal, Two Dimensional Geometry of Lexical Space

The entries are concepts, for example, ^animal^; I drop the carets in the geometry for brevity.

<table>
<thead>
<tr>
<th>S1 Animal</th>
<th>P1 Colored</th>
</tr>
</thead>
<tbody>
<tr>
<td>/ \</td>
<td>/ \</td>
</tr>
<tr>
<td>Fox S2</td>
<td>S3 Bird</td>
</tr>
<tr>
<td>/ \</td>
<td>/ \</td>
</tr>
<tr>
<td>P2 P3 {yellow red ...}</td>
<td></td>
</tr>
<tr>
<td>/ \</td>
<td>/ \</td>
</tr>
<tr>
<td>S4 S5 S6 S7 Canary</td>
<td>P4 P5 P6 P7 Yellow</td>
</tr>
</tbody>
</table>

The left pyramid is the structure for vertical travel between substantive concepts, SSs, the right pyramid is for vertical travel between trope/property concepts, PPs. They have distinct subsumption travel pathways, for example, S1 → S4 versus S1 → S7 and P1 → P5 versus P1 → P6. The top concepts, S1 and P1, are determinables and the subsumed, lower ones are determinates (W. E. Johnson).

The functors that specify vertical travel paths are [Subsume, /], [Link, *], [Identify, =] [Assign/Emplace, E...E @ /.../]. [Assign/Emplace] is the last stop at the bottom of subsumption pathways. The functors that specify horizontal travel paths in lexical space between S and P concepts are [Bond, :], [Conger, :+], [Sooth, .]. More below.
The [Incompatible, !] functor, too, specifies horizontal travel, but between S and P pyramids’ branching pathways via conceptual negation, [~], which is the only unary functor in conceptual logic. ^S^ and ~^S^, ^P^ and ~^P^ are incompatible; ^fox^ and ^bird/~^fox^ and ^fox^ → ^bird/~^fox^ are examples. Any concepts on different subsumption pathways descending from one and the same determinable are incompatible. It follows that in a monistic conceptual system—one that has but a single overall super-determinable, say, ^matter^—any concepts on any different sub-sumption pathways would be incompatible.

[Link, *] is a special case. Its travel routes run both vertically and horizontally. In the geometry example above, it runs vertically, from P1 to P3. ^Color-ed^ subsumes the full spectrum, the full range of color trope concepts; the bracket symbol /{...}/ indicates this. The concepts in a range are incompatible, because ^blue^ is ^~orange^, ^~tawny^, ^~purple^, ... and so forth. [Link. *] is special also because it’s a horizontal bridge from enjoined to sooth propositions that are the only leutically allowed propositions in conceptual logic; approximations to sooth propositions have other names: empirical, predicative, contingent, a posteriori. It’s a conceptual mess; only this strong, lexical soap can wash away the dross. It’s coherent to sooth a color of any animal, S1, to any color, P3, because

^>[Link, *] animal {red yellow blue ...}^ --> ^^[.] animal red & ^^[.] animal black & ^...^.

A coherent link proposition entails a conjunction of coherent sooth propositions whose trope concepts are included in a range, per the above entailment. However, [Bond, :] puts an important restriction on the coherence of above entailment. [Bond, :] is a horizontal functor enjoining a path between an S and a P. For example, ^[Bond, :] canary yellow^ is coherent; this excludes the coherence of ^[.] canary pink^; The bottom level of the double pyramid, the travel route between S7, ^canary^, and P7, ^yellow^ is enjoined. This entails ^[Enjoins not, I~] canary pink^.

[Conger, :+] is an enjoining functor between an S and a P, but, as /+/ indicates, there’s more than one bonding; for example, a canary’s congery includes the tropes if its DNA.

The emplacement/assignment functor is a vertical travel route to the bottom of subsumption pathways, Sm → Sn, Pm → Pn, if there is a coherent as-
/Angel/ does not have any. /Pet/ does; you may have one. A structuralist account of concepts turns any material entity when given a place in a lexical space into a concept, including your pet, Rover and the pile of ink, /Rover/. More often he’s just Rover and /Rover/ is just ink. He gets a unique location in lexical space by being emplaced in /Rover/, the bottom lexical token on a subsumption pathway, because its singular. ^Rover^ (pile of ink) and EroverE (pile of cells) inherit all the subsuming tropes that /dog/ has, such as ^animal^, ^mammal^, ^digests^, ... . [Emplace/Assign] pushes [Refer] over the cliff.

[Identify] is a vertical, subsumptive, one count functor. A one count functor’s enjoins us to assign/emplace into either substantive or trope terms one and the the same substantive or trope. If the emplacements into two different SS or PP terms in two propositions--where the other pair is the same--is one and same entity, then the identity proposition is coherent, because the emplacements have a one count, which entails they’re identical emplacements. Here’s an example of this complicated sentence.

^[=][^] Stendhal wrote The Red and the Black^ and ^[.] Henri Beyle wrote The Red and the Black^^

If one and the same man is emplaced/assigned to /Stendhal/ and to /Henri Beyle, and if both subpropositions of the [=] proposition are coherent, then the [=] proposition is coherent. The names’ assignments have a one count.

Further, EStendhalE and EHenri BeyleE have one and same location in lexical space, because both are coherently subsumed under terms that occupy one and the same location. Some knew he had two names; others did not.

The lexical functor [Link, *] also has vertical travel route. P1 to P3 illustrates this.

<table>
<thead>
<tr>
<th>S1</th>
<th>Animal</th>
<th>P1</th>
<th>Colored</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>/</td>
<td>/</td>
<td>\</td>
</tr>
<tr>
<td>Fox</td>
<td>S2</td>
<td>S3</td>
<td>Bird</td>
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<td>/</td>
<td>\</td>
</tr>
<tr>
<td>S4</td>
<td>S5</td>
<td>S6</td>
<td>S7 Canary</td>
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</tr>
</tbody>
</table>
^Colored^ subsumes a range, {...}, of colors.

20.

A Sampling of Valid Conceptual Logic’s Inferences

Incompatible Inferences      Pages 23 – 4, “Precis…”

!1  S    P    [!] is produced by negating a concept, ^~C^; it may
    ~S    ~P    be a contradictory or a contrary. Contradictory
    ___    ___    concepts are the lower limit of a contrary range,
    ! S    ~S    ! P    ~P

!5  {S1  S2}  {airplane  train}  Subsumed by ^vehicle^.
    : S1  P    : airplane  winged  Bonded predicates singly or in
    ~: S2  P    ~: train  winged  congeries distinguish kinds of ob-
    ___    ___    from each other. All classifications require [Bond], [Link], [~],
    ! S1  S2    ! airplane  train  [Subsume]. ‘Expert systems are
    ___    ___    logically too simple.

Subsumption Inference      Page 26 of “Precis…”

/3  ! P1  P2

    ~/ P1  P2    If two concepts are incompatible, they’re on different sub-
    ~/ P2  P1    sumption paths; such diverging pathways are a visual, logical
    ___    ___    simulacrum of conceptually negating, [~], a concept. Similarly
    ! S1  S2    for Ss.

Emplace/Assign Inference      Pages 26 - 35 of “Precis…”

E1  ^EsE @ /S/^    Assume coherent emplacement
    ^E(s)pE @ /P/^    “

    ^EsE @ /S/  &  E(s)pE @ /P/^    By conjunction. Evidence for a sooth
    ___    ___    Sooth proposition’s coherence and its
    ! . S    P^    statement’s truth.
    ___    ___    Coherent proposition conclusion
    < . S    P>    True statement conclusion
Identify Inference  Pages 35 – 39 of “Precis...”

$=1$ \^EmarktwainE @ /Mark Twain/ & ^EmarktwainE @ /Samuel Clemens/\^\^ 
^EsamuelclemensE @ /Samuel Clemens/ & ^EsamuelclemensE @ /Mark Twain/\^\^ 

^[=] EmarktwainE EsamuelclemensE^ This is a one-count for the coherently emplaced entity, hence, the proposition is coherent.

Bonding Inference  Page 39 of “Precis...”

B2 / P \{Q ~Q\} Assume P subsumes the adjacent \{Q ~Q\} range; that is, P subsumes no intermediate trope concepts that subsume \(Q \sim Q\).

: S Q: bird feathered

:\ ~: S ~Q ^: bird ~feathered^ is incoherent.

Link Inference  Page 40 of “Precis...”

*2 / P \{Q ~Q\} \{Q ~Q\} is a range of concepts each contrary to each. Since S isn’t bonded to either Q or ~Q, you’re free to link any trope concept in the \{Q ~Q\} range to S. *2 specifies Free-Predicate’s routes in lexical space.

* S \{Q ~Q\}

Sooth Inference  Pages 40 – 44 of “Precis...”

4. ~: S P & ~: S ~P This premise is *2’s Free-Predicate linkage Condition, which entails a coherent link proposition.

[Ignore the dark line below; I don’t know how to erase it.]

*S {P ~P}

.4 is a very important inference schema. It marks the descent from the lexically enjoined [*] to the lexically allowed [.]
Congery Inference  Pages 44 – 48 of “Precis...”

\[+:2a \quad \wedge[\;\vdash\;] S1 \; [A1\ldots A_m]\wedge \]
\[\wedge[\;\vdash\;] S2 \; [A_n\ldots A_q]\wedge \]
\[\wedge \; [=] \; [A1\ldots A_m] \; [A_n\ldots A_q]\wedge \]

Concepts in congeries need not be incompatible\(^3\), but different congeries are, as in 2b’s conclusion. One kind’s conger cannot have another’s. This assures uniqueness of kind concepts.

\[+:2b \quad [=] \; S1 \; S2\wedge \]

\[\neg[^{\wedge}][\;\vdash\;] S1 \; [A_n \ldots A_q]\wedge \; \& \; \wedge[\;\vdash\;] S2 \; [A1\ldots A_m]\wedge \]


\(^3\) Although ‘red’ and ‘green’ are incompatible, they don’t necessarily make the propositions ‘The apple is red’ and ‘The apple is green’ incompatible, providing we modify the substantive concept. For example, one part of an apple may be red while another part is green. This shifts the substantive in these propositions from ‘apple whole’ to ‘apple parts’; thus, the two sentences become logically independent and compatibly coherent.