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Syntax through the Wide-Angle Lens of Dialectics

By Olga Temple
Linguistics & Modern Languages
School of Humanities & Social Sciences
UPNG
olga.temple77@gmail.com

Abstract

I contend that we cannot understand the structures of language (***verbal thought***), if we do not understand the *mechanism* of human thought. After a brief look at traditional syntactic theory, I propose a model of sentence analysis (G-nalysis), which, I argue, better serves language users – the 'spinners' of their 'webs of significance.'

In contrast to the purely descriptive approach to language, aimed at documenting its fleeting physical ***forms***, G-nalysis tries to identify the ***logical relationships***, the ***functions* of words** and **groups of words** (phrases and clauses) in the nexus of the sentence. Expounding on the two universal principles of sentence structure (synthesis and analysis), and showing how they operate in all human languages, I argue that dialectics facilitates students' understanding of syntax at all levels of education.

Specifically, I argue in favour of adopting G-nalysis in the teaching of grammar in secondary schools – in Papua New Guinea and beyond.

Keywords: generalization, dialectics, dialectical linguistics, syntax, syntactic analysis, meaning, ambiguity

I. TRADITIONAL WORD-BASED PRESCRIPTIVE GRAMMAR

Traditionally, ***word-based*** prescriptive grammars distinguished eight parts of speech by individual words' functions in the sentence (that is, by 'what a word does in a sentence'):

Word	Function
Nouns	name things
Pronouns	stand instead of nouns
Adjectives	describe (modify) nouns
Verbs	'action' words
Adverbs	describe verbs & adjectives
Conjunctions	join words, phrases & clauses
Prepositions	Are the 'connective tissue'; they show the 'positions' of things in space and time
Interjections	expressions of speakers' feelings & attitudes interjected, or 'thrown into' the midst of a clause: the 'SPICES'

The close-up focus on the functions of individual words, viewed in isolation even in the context of the sentence, overlooked the fluid nature of ***word-meanings in use***, the multi-layered relationships between word-meanings in the sentence mosaic. Singular focus on single words misses the forest for the trees!

II. DESCRIPTIVE SYNTAX

In an attempt to capture the **relationships** between words in the sentence, descriptive linguistics widened the scope of the 'Parts of Speech' concept to include **groups** of words (**phrases**), viewed as **categories of lexical items** *defined by their morphological or syntactic behavior* (Tallerman: 1998, p. 31). Major word classes, such as Verb Phrase (VP), Noun Phrase (NP), Adjective Phrase (Adj.P), and Prepositional Phrase (PP), are distinguished by the morphology, functions, and patterns of distribution of phrase 'heads' [this covers both the slots the words can appear in and the modifiers that co-occur with them]. Because of the primary focus on single words (like 'heads' in a phrase), and because languages vary so widely in their physical structures, descriptive syntactic analysis concludes that word classes in different languages also vary:

> '…Groups of closed class words often pair up with a specific lexical word, such as noun or an adjective. To count as a distinct word class, a set of words must have some properties which distinguish them from other word classes in the language. If we don't find any such properties, then it would be unscientific to make artificial divisions in the data. … It is important … not to expect all languages to look the same. For instance, we shouldn't think that just because, say, English and Italian have an open class of adjectives, then all languages must have one. On the other hand, linguists now know that languages don't vary from each other at random. We can expect there to be a finite set of possible different word classes, from which each language 'selects' its own set of classes' (Tallerman: 1998, p. 49).

Based strictly on morphological description, the Igbo language of Nigeria appears to have only eight adjectives, [1] while other languages have 'very few or even no prepositions' (Tallerman: 1998, p. 34) – Latvian, for example, has no preposition '***in***'!

The sheer diversity of linguistic forms seemingly contradicts the idea of *universal* principles of human understanding which underlie and actively shape the grammars of all human languages. Yet, we know that looks can be deceptive – to paraphrase Shakespeare, 'What's in a *form*?' All human languages, regardless of their physical forms, express the same logical relationships that human minds see between things in our 4-D physical world – relationships based on resemblance, contiguity in space/time, and causality. Latvian may lack the preposition '*in*', but that does not mean that this spatial relationship does not exist in Latvian minds; it simply means that the speakers use a different way of expressing it:

Nominative: galds (table)   Locative: galdaa (in the table)
                aviize (newspaper)   aviizee (in the newspaper)

While the forms of the physical structures (morphology) differ, their essence (meaning) remains the same. Formal tests used to categorize phrases by morphological 'looks' and patterns of distribution of

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[1] 'Igbo has 8 adjectives (they are actually converses); the English equivalents are: hot/cold; young/old; black/white; beautiful/ugly. The 'dispute' however rests on nouns that function as adjectives which some linguists insist should be classified as adjectives' (Prof. Ogunkeye, Funmi: Linguistics, University of Jos, Nigeria).

their 'heads' lose sight of the actual **grammatical meaning** of the phrases, of their **collective function**. By implication, Kwamera adjectives, indeed, must be viewed as verbs, while in Igbo they become nouns (Tallerman: 1998, pp. 44-45). René van den Berg and Robert Busenitz, the authors of the recently published *Grammar of Balantak, a language of Eastern Sulawesi* , make a more nuanced claim that "Adjectival concepts (such as 'big', 'good' and 'red') are treated as stative verbs in Balantak," and agree that the twelve word classes they distinguish for Balantak[2] may not be the only conceivable classification (René van den Berg & Robert L. Busenitz: 2012, p. 27). Categorizing words by their 'looks' (morphology / syntactic distribution) and 'fixed' grammatical functions, assigned to them outside of each sentence mosaic, is indeed bound to be subjective to individual perception, for we all view the world through our own Mind's Eye and make sense of things in our own heads, based on our own personal experience. Yet, descriptive linguistic analysis has been generally deemed to reflect scientific facts.

I will argue that we cannot understand a complex whole (such as human language) by focusing on its parts (phonology, morphology, syntax, semantics, etc.)

– '***The Whole is more than the sum of its parts***' (Aristotle: Metaphysics, Book I). Despite acknowledging the overlap between syntax and semantics, descriptive linguistics has separated the two: syntactic theory, as illustrated above, focuses on the mechanical description of physical structures, while propositional semantic theories view sentences and their parts as bearers of some fixed 'objective' meaning, and attempt to pair the two, using Frege's Theory of Reference adjusted, in the case of double-indexing semantics, for *propositional attitude ascription* and *circumstances of evaluation*[3]. Ferdinand de Saussure dissected the Linguistic Sign into *word* and *meaning* (the *Signifier* and the *Signified*), and examined its 'body' and 'soul' separately, fixed in time, lifeless. Descriptive linguistics does virtually the same, only it dissects the larger units of language (propositions), and tries to pair them with their 'objective' meanings.
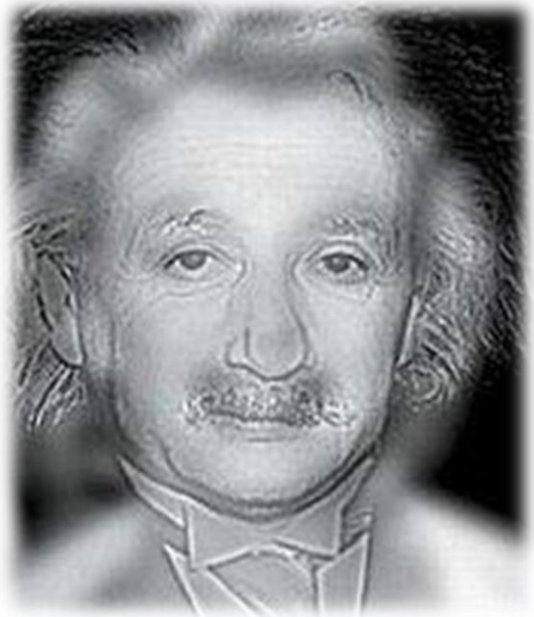
However, sentence-meanings cannot be 'fixed' in dictionaries. Sentence meaning is not merely the sum total of the word meanings in it – it is the mosaic image the words make that people 'see' through the lens of their own individual experience. The meaning of a sentence mosaic is a ***complex image/generalization***, and each Mind's Eye may see the 'picture' shaped by the grammatical relations between words in the sentence differently – this makes language inherently ambiguous. Look, for example, at this image above – people with normal eyesight will see Einstein, whereas near-sighted people will see Marilyn Monroe. Likewise, the vision of each Mind's Eye and, therefore, what it actually

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[2] nouns, verbs, pronouns, articles, demonstratives, numerals, quantifiers, adverbs, prepositions, conjunctions, interjections, and particles
[3] Quine (1970), Kripke (1972), Kaplan (1989), et al.

'sees', varies according to individual experience (i.e., level of cognitive development, physical and psychological state, social and cultural environment, and circumstances of communication).

Another example of 'indeterminacy' of word meanings in use:
What you see as the 'hands' of the highwayman below could as well have been the fins of a fish, or the feet of a duck in another pattern; it is the 'picture' that each Mind's Eye sees which makes parts of the whole to be what they are in each person's understanding.

Photos taken in a Highlands hotel (FB):   **East Sepik highwaymen**   **Gents' toilet sign**

Descriptive syntax ignores the process of ***generalization*** which puts parts of the mosaic image together, shaping the sentence meaning in our minds. In order to understand linguistic structures, we must understand the forces that put them together – associations by resemblance, contiguity, and cause/effect, the principles of human understanding (Hume: 1748). "We do not regard any of the senses as Wisdom," wrote Aristotle, "yet surely these give the most authoritative knowledge of particulars. But they do not tell us the 'why' of anything - e.g., why fire is hot; they only say that it is hot. … Wisdom is knowledge about certain principles and causes" (Aristotle: Metaphysics, Book I). Detailed accounts of and descriptions of linguistic structures provide us with useful information that sharp senses of hearing and sight can give us. They cannot explain their 'principles and causes' – the 'why's of the constantly changing grammars.

III. DIALECTICAL SYNTAX
Dialectical syntax describes the different ways societies devised of doing the same thing – generalizing, or thinking (i.e., associating word-meanings by resemblance, contiguity and cause/effect, thus synthesizing larger chunks of meaning – phrases and clauses). This Rational Language Mechanism, so elegant in its simplicity, operates without exception in all human languages. Different grammars use different *tactics* to build their sentence mosaics, but the *strategy* of synthesizing complex generalizations through only three types of association is universal. Look, for example, how different languages express the same causal relationship in so many changing ways:

English: '**I think, therefore, I am**':

Yoruba: Mo wa láàyè   nitoripé   mo n ronú.

I   be alive   for reason that (because) I Asp:think

Mo n ronú   nítorí   náà   mo wa láàyè

I Asp:think   for reason that (for that reason /therefore) I   be   alive

Krio: Ah de tink, so na mi.

Japanese: Ware omou, yueni ware ari.
Watashi wa kangaemasu, dakara watashi wa sonzai shimasu.

Latvian: Es domāju – tādēļ es esmu.

German: Ich denke, also bin ich.

Dutch: Ik denk, daarom ik besta.

Russian: Я мыслю, следовательно, я существую.

Greek: Σκέφτομαι άρα υπάρχω .

Bahasa Indonesia: Saya pikir, mahanya Saya ada.

Mussau: Aghi nongina, aghi anna.

Telei of S. Bougainville: Nne aposi, eguko nne.

Tolai: Iau nukia, ba iau iau.

Language is a **social means** of *verbal thought*, a collectively created 'spinning wheel' which its speakers use to spin their unique 'webs of significance.' When every word of language is viewed as an *act* of *thought*, words come alive as the generalizations of our living, thinking collective minds; together, they form the yarn of collective generalizations (word-meanings), out of which Individuals spin their 'webs' (sentence meanings). The contradictions inherent in the complex whole of language, its psycho-physical, social-individual and historical dualities, power its beating heart (generalization), thus forming the **'*Rational* Mechanism'** of language (Temple: 2009, 2011).

Since syntax is basically the **conventional way of *generalizing***, dialectical analysis uses the universal principles of human understanding to unravel the intricacies of linguistic forms. Through the wide-angle perspective, the traditional 'parts of speech' are seen as the natural associations in human minds: adjectives connect ideas by resemblance; adverbs – by resemblance, contiguity, or cause/effect, and nouns are conceived by all three kinds of association. Traditional abstract concepts ('parts of speech') thus become concrete manifestations of verbal thought /human understanding of the physical world. In contrast to traditional word-based grammar, dialectical syntax recognizes that *groups* of words can form 'chunks' of meaning and that, therefore, groups of words (phrases and clauses) can perform one

function (Noun, Adjective or Adverb). In this floor mosaic in Dallas International Airport (photo taken in 02/2012), it is *groups* of tiles that *together* form the bird's wings, tail, eye, beak, etc.: →

Generalizing syntactic analysis (G-nalysis) focuses on how words and *groups* of words function in the sentence, forming **chunks of meaning** in the overall sentence mosaic. Associating ideas by resemblance, contiguity, and cause/effect comes to us naturally, because our thoughts reflect our experiences in the 4-D physical world – we perceive resemblance between things, and the various spatial, temporal and causal relationships between them. The so-called 'journalistic' questions '***Who, Does What*, to *Whom*, How, *When, Where,* and Why?'** reflect the relationships between the things we observe; word-meanings that answer these questions (singly or 'working together' in groups) are classed as different 'Parts of Speech,' depending on what they do in the sentence/ which question they answer:

Word	Function	Answer Questions:
Nouns	Words/phrases/clause that name things	***What? Who?***
Pronouns	stand instead of nouns	***What? Who?***
Adjectives	Words/ phrases/ clauses that describe nouns by **RESEMBLANCE**	***Which? What kind?***
Verbs	name actions or states of being, while carrying also the meaning of time [**SYNTHESIS**/ **CONJUGATION** with SUBJECT]: *A verb is that which, in addition to its proper meaning, carries with it the notion of time … It is a sign of something said of something else.* (Aristotle)	
Adverbs	describe verbs by **RESEMBLANCE**: **CONTIGUITY** I in space/time: **CAUSE/EFFECT**: *Adverbs also describe adjectives (qualities)	***How?*** ***Where? When?*** ***Why? With what consequence? On what condition?*** et cetera
Conjunctions	join words, phrases & clauses **[CONTIGUITY]**	
Prepositions	Are the 'connective tissue'; they show relative 'positions' of things in space and time **[CONTIGUITY]**	
Interjections	expressions of speakers' feelings & attitudes interjected, or 'thrown into' the midst of a clause: the 'SPICES'	

Thus, the associations that drive the process of thought result in generalization on multiple levels: word, phrase, clause, sentence, and larger discourse. Dialectical syntax uses the principles of human understanding to identify the grammatical functions of words and groups of words (those 'chunks' of meaning, phrases and clauses) in the main sentence.

Apart from the simplicity of using the natural logic of human thought in syntactic analysis, the dialectical method has another pedagogical advantage over the traditional word-based or phrase structure grammar approaches – it uses very few terms and concepts, i.e.:

- The traditional 8 parts of speech
- The sentence = 'saying something about something'
- The S/V/C nexus, in whichever order they come; ['C' is for 'Complement' in preference to the conventional 'O' for 'Object' because this slot in the nexus can also be filled by Predicate Adjectives and Predicate Nouns, or remain empty, have Zero Complement (Vavra: 2000)
- Noun, Adjective, & Adverb phrases /dependent clauses, the difference between the two being strictly structural (both are groups of words that function as one part of speech, Adjective, Adverb, or Noun; however, clauses have nexal patterns of their own, whereas phrases do not)
- Four types of sentence structure: (1) Simple – one nexal pattern; (2) Compound – two or more independent nexal patterns, joined together by conjunctions or commas; (3) Complex – one independent nexal pattern and one or more dependent clauses; (4) Compound-Complex – two or more independent nexal patterns and one or more dependent clauses.
- The **two universal principles** of sentence structure:
    - *Synthesis* of what we speak about with what we say about it [the nexus of the Subject, Verb & Compliment (S/V/C), in whichever order they come], and
    - *Analysis* (aka *Modification*/*Recursion*): adding detail, 'color'/'pixels' to any of the major sentence constituents (S/V/C).

In addition to these common-sense concepts, a few acronyms, or abbreviations, will facilitate sentence diagramming:

S	= Subject
V	= Verb
C	= Compliment
PA	= Predicate Adjective
PN	= Predicate Noun
DO	= Direct Object
IO	= Indirect Object
C_{zero}	= Zero Compliment

## IV. GENERALIZING SENTENCE ANALYSIS (G-NALYSIS)
G-nalysis aims to identify the associations in the speakers' minds that glue word-meanings into larger chunks of meaning (phrases/clauses). The **synthesis** of generalization holds sentence mosaics together. The **analysis** of generalization 'zooms in' on parts of the nexus 'mosaic', adding detail, colur to the major

sentence constituents, increasing their pixel resolution. 'Generalizing' syntactic analysis aims to elucidate both aspects of the process; therefore, *G-nalysis* uses a two-step procedure:

1. The first step is to identify the major 'parts' of all the nexal patterns present in the overall synthesis (sentence mosaic).
2. The second step, once all the S/V/C patterns have been identified, is to figure out how all the clauses (S/V/Cs), phrases, and words relate to each other – what do they actually *do* in the sentence? This is done by asking the relevant logical questions, which will identify the function/ 'part of speech' of the word, phrase, or clause in the sentence.

Relationships between nexal patterns are indicated by simple diagrams, where **quadrangles** represent independent SVCs, and **triangles** – dependent SVCs:

Two Noun Clauses = Indirect Objects embedded in the Complement$_1$ slot
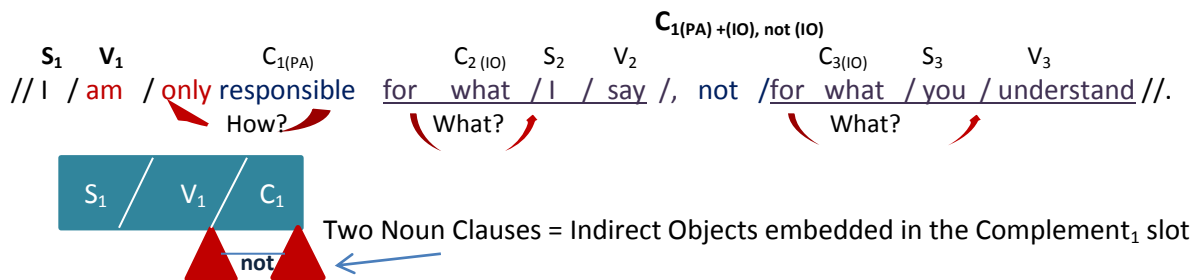
Re-cap of G-nalysis basics:

It is the <u>*common function*</u> (purpose, the fusion of semantic and grammatical *meaning*) of words working together that binds them into a unit of compound meaning, either naming something in the nexus (noun function) or adding detail to a sentence constituent (adjective or adverb function).

Phrases are different from dependent clauses only structurally: while clauses have their own nexal patterns (S/V/Cs), phrases do not; both phrases and dependent clauses are defined by their common function: words in them <u>*work together as one part of speech*</u> (noun, adjective, or adverb).

Thus, the universal **Rational Mechanism of Language** (generalization) works through the **synthesis** of word-meanings into the nexus of the sentence and **analysis** (description, modification, specification) of the nexus constituents:

*   **Synthesis** connects the 'bones' of the 'skeleton' into the 'Subject, Verb, Complement' pattern of the proposition; their nexus (in whichever order they come)represents the linear (syntagmatic) relationship between them, and
*   **Analysis** zooms in on the major *parts* of the sentence mosaic & describes them by resemblance, cause/effect & contiguity in space/time – it puts 'flesh' on the bones of the sentence.

Meaning-as-Use

'In use, words and their meanings are relatively independent of each other' (Vygotsky: 1934); in fact, words only acquire their true meaning in the nexus of the proposition, just like the nose in this line drawing is different from the eyes solely by virtue of its position in the general pattern:
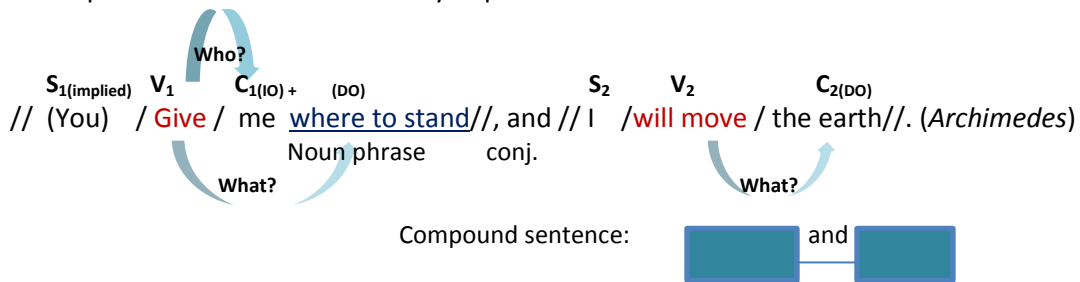
In addition, a lot of meaning in our communications goes unspoken – meanings are often *implied*, and so can be interpreted differently:
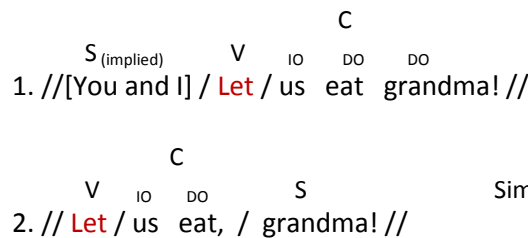
'Damn' in this sentence may imply, 'this is too much'/ 'what cheek!'/ 'I can't stand it anymore' or anything else you can think of.

Subjects of imperative sentences are usually implied:

$S_{1(implied)}$ V_1 $C_{1(IO) +}$ (DO) S_2 V_2 $C_{2(DO)}$
// (You)   / Give / me where to stand//, and // I   /will move / the earth//. (*Archimedes*)
                            Noun phrase   conj.

Compound sentence:

Different minds may 'see' the same sentence mosaic differently:

            C
$S_{(implied)}$ V   IO   DO   DO
1. //[You and I] / Let / us   eat   grandma! //

            C
V   IO   DO   S   Simple sentence:
2. // Let / us   eat, / grandma! //

How different speakers **use** words or **perceive** the relationships between words/ groups of words in the sentence mosaic determines their functions in the sentence and affects the overall meaning of the sentence mosaic.

FLEXIBILITY OF G-NALYSIS

Because we all make sense of things in our own heads, people often 'see' the connections between words differently, making different 'sense' of the same mosaic image. This tongue-in-cheek FB comment is an example of this kind of ambiguity:

G-nalysis effectively represents different 'visions' of connections between word-meanings and groups of word-meanings in the sentence mosaic – moreover, **G-nalysis *encourages* analytical thinking**… So long as the relationships between words, phrases and clauses 'make sense' and are supported by the way the words/groups of words answer the common-sense logical questions, they are always a possibility, and students enjoy figuring out all the possible relationships between them.

In this case, the verbal noun phrase 'be stoned' can be interpreted as the infinitive of the passive verb or the infinitive of the stative verb 'be' + the past participle of 'stone' functioning as predicate adjective:

S_1 V_1 $C_{1(IO)}$ S_2 V_2 $C_{2 \text{(P verbal N)}}$
// If a man / lays /with another man,/ he / should / be stoned.//

S_1 V_1 $C_{1(IO)}$ S_2 V_2 $C_{2 \text{(P verbal N) + (PA)}}$
// If a man / lays /with another man,/ he / should / be   stoned.//
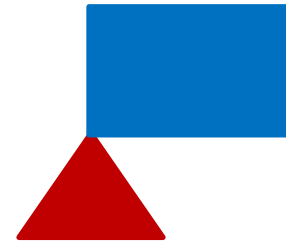
Dialectical linguistics views ***word-meaning*** as the smallest unit of language, because it has all the psycho-physical and socio-historical properties of the whole (Vygotsky: 1934; Temple: 2011). A *word* without meaning is not a word of language ('*nonsense*' has meaning), and *meaning* comes into existence only through words. Yet, we can use meaningful words in grammatical patterns, and yet find that *together*, they make no 'sense' at all, as in:
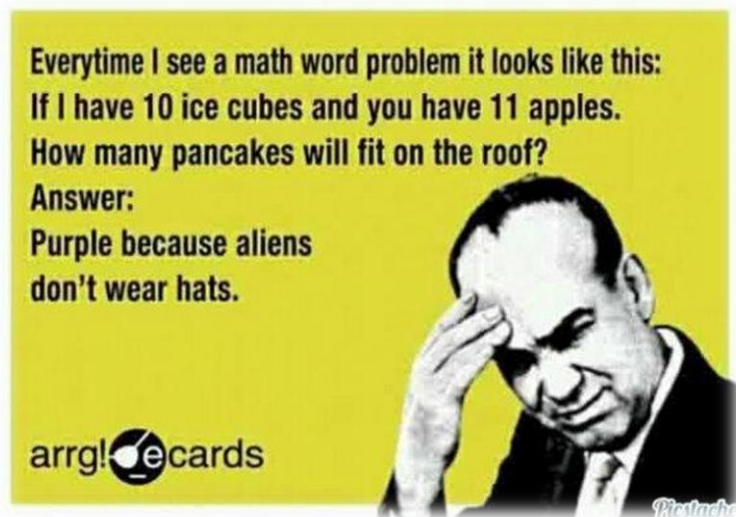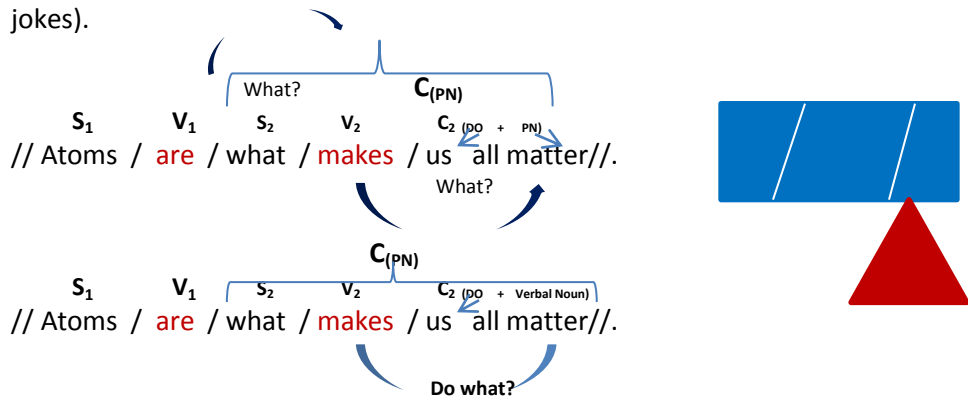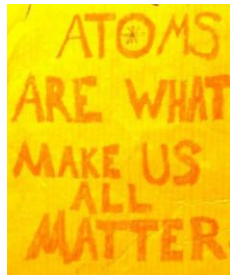
This happens when we cannot 'connect' parts of the discourse mosaic (words, phrases, clauses, etc.) into a meaningful pattern, using the logic of human understanding (associations by resemblance, contiguity, and cause/effect).

Unlike Chomsky's 'Green ideas sleep furiously,' the example above has clauses that do make sense on their own, but not together, for lack of logical connections. Dialectical sentence analysis examines the **synthetic sense** we, thinkers, make of word mosaics and how they clump together into larger chunks of meaning. Our minds look for some connection between ideas (by resemblance, or contiguity, or cause/effect, or by all three associations) in order to 'see' the 'whole' pattern. G-nalysis focuses on the *logic* of these connections between words and groups of words in the sentence mosaic, because it is that which determines their grammatical functions.

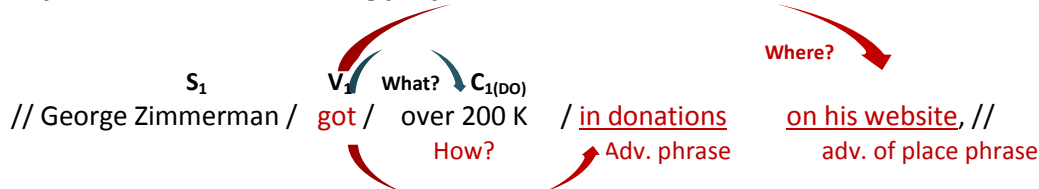**Structural Ambiguity, and how G-nalysis deals with it**:

Since we all make sense of things only in our own heads, people often perceive the relationships between word-meanings /chunks of word-meanings in the sentence mosaic differently. G-nalysis uses the universal principles of human understanding to diagram those generalizations by identifying the various logical relationships between parts of the 'mosaic' that people 'see' through the lens of their personal experience. G-nalysis captures and dissects the fluid 'Indeterminacy of Meaning' – a source of numerous jokes and puns! This makes G-nalysis a lot of fun (which students of syntax highly appreciate ☺ Re: Appendix for more linguistic jokes).

$$S_1 \quad V_1 \quad S_2 \quad V_2 \quad C_2 \text{ (DO + PN)}$$
// Atoms / are / what / makes / us all matter//.
(What? / C(PN) / What?)

$$S_1 \quad V_1 \quad S_2 \quad V_2 \quad C_2 \text{ (DO + Verbal Noun)}$$
// Atoms / are / what / makes / us all matter//.
(C(PN) / Do what?)
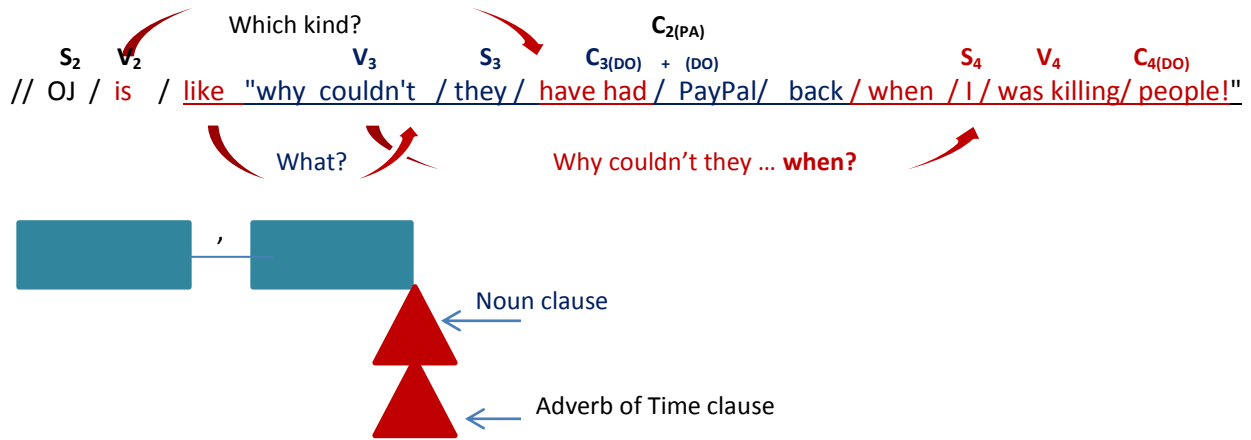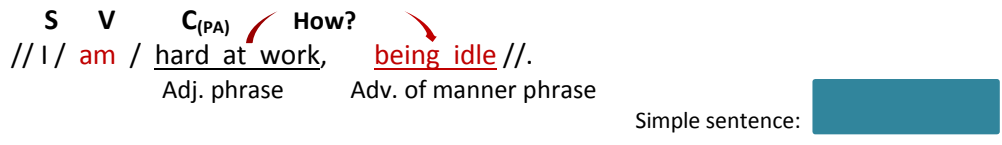
Some more examples of G-nalysis:

Example 1.
George Zimmerman got over 200k in donations on his website, OJ is like "why couldn't they have had PayPal back when I was killing people!" - (Bill Maher on FB 04/05/2012)

$$S_1 \qquad V_1 \quad C_{1(DO)}$$
// George Zimmerman / got / over 200 K / in donations on his website, //
(What? / How? / Adv. phrase / Where? / adv. of place phrase)

Which kind?   C₂₍PA₎

S₂   V₂   V₃   S₃   C₃₍DO₎ + ₍DO₎   S₄   V₄   C₄₍DO₎

// OJ / is / like "why couldn't / they / have had / PayPal/ back / when / I / was killing/ people!"

What?   Why couldn't they … **when?**

,

→ Noun clause

← Adverb of Time clause

Example 2.
I am hard at work, being idle. (Oscar Wilde)

   S   V   C₍PA₎   How?
// I / am / hard at work,   being idle //.
              Adj. phrase   Adv. of manner phrase
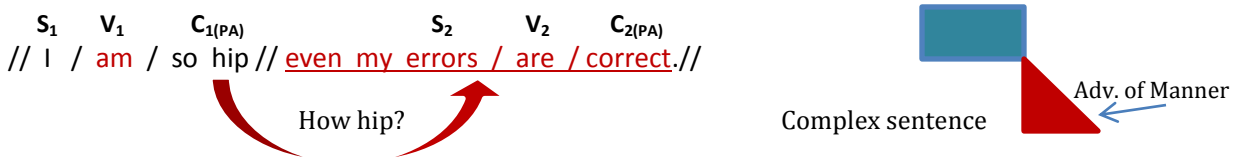
Simple sentence:

Example 3.
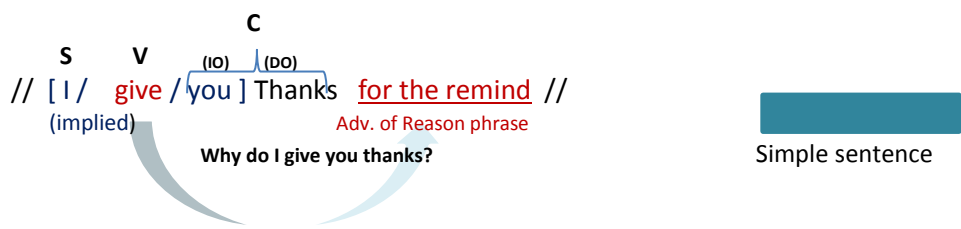 **For Spacex, the next few hours will be nail-biting.** (CNN commenting on the launch of the Mars explorer)

       C.₁₍IO₎   S   V   C.₂₍PA₎
  // For Spacex,   / the next few hours / will be /   nail-biting.//

Simple sentence: →
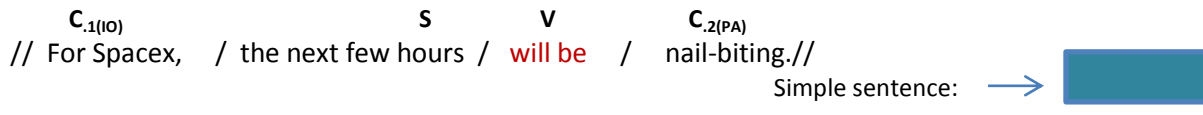
Example 4.
I am so hip, even my errors are correct (Nikki Giovanni: *Ego Trippin'*)

     S₁   V₁   C₁₍PA₎   S₂   V₂   C₂₍PA₎
  // I / am / so hip // even my errors / are / correct.//

                  How hip?

Complex sentence   Adv. of Manner

Example 5. Thanks for the remind. [A FB comment, 26062012]

                       C
     S   V   ₍IO₎   ₍DO₎
// [I / give / you] Thanks   for the remind //
    (implied)   Adv. of Reason phrase
                 Why do I give you thanks?
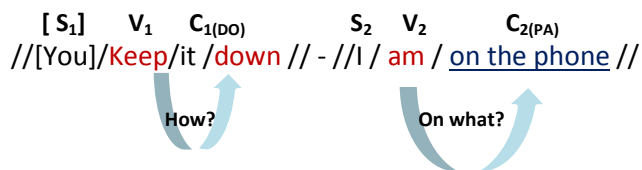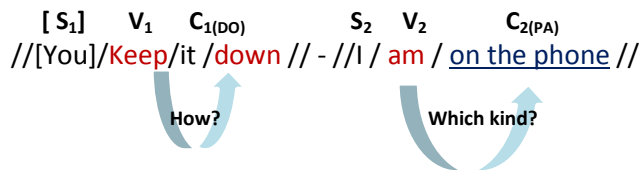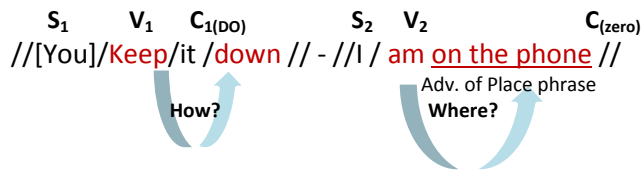
Simple sentence

Because the 'remind' (a noun in this case) is the 'thing' for which I am thanking you, this sentence could also be analyzed as:

S   V   C(IO)   +   (DO)   +   (IO)

// [I / give / you] Thanks   for   the remind. //
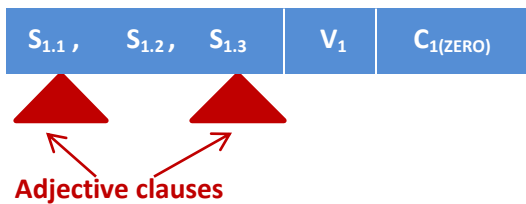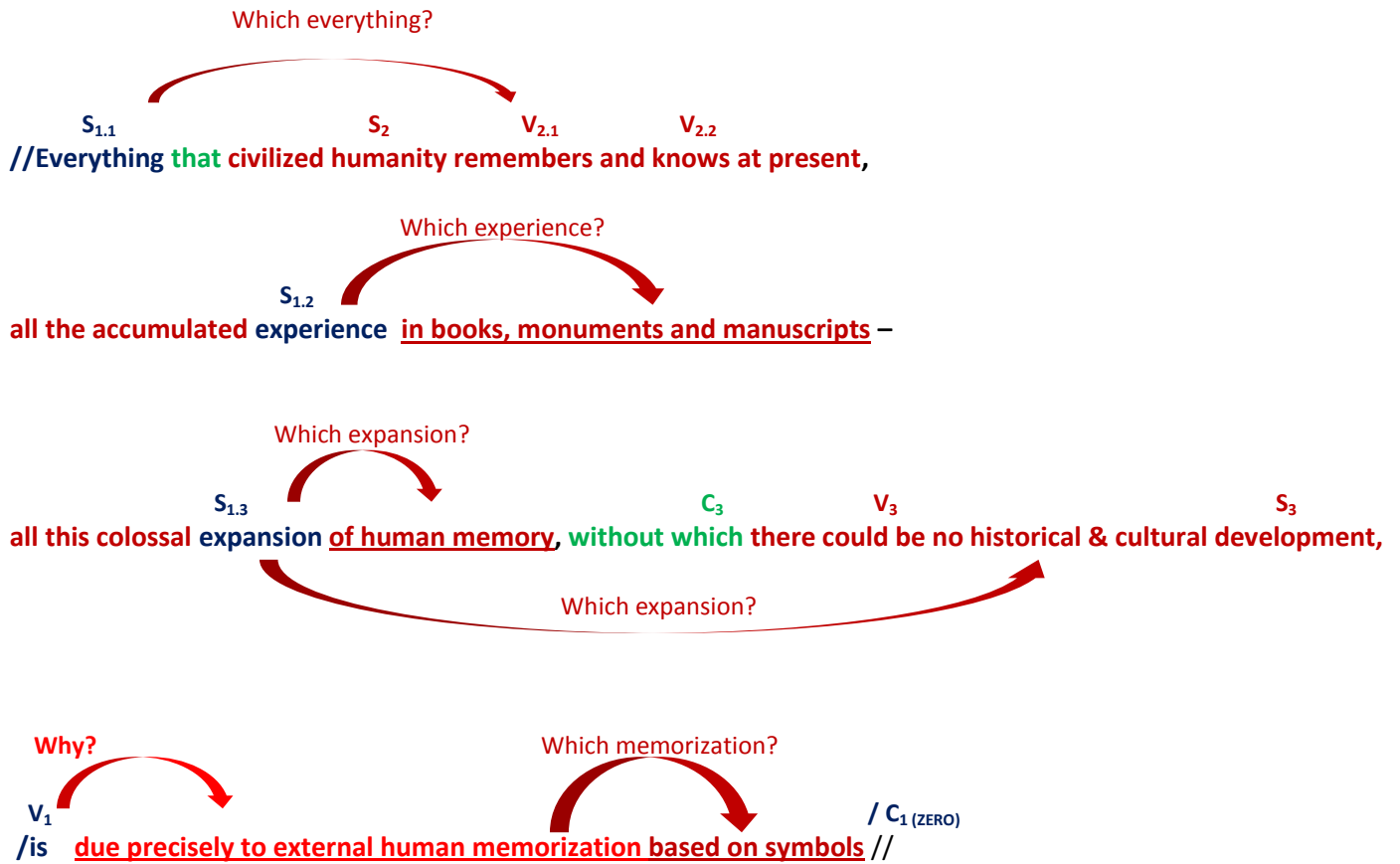   (implied)   **For what?**
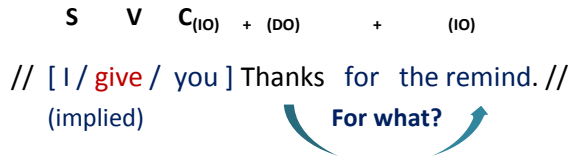
Example 6. Keep it down - I am on the phone!

Here, '*on the phone*' is presented literally, as an **Adverb of Place phrase**, in which case it answers the '***Where?***' question and belongs in the **V** slot of the S/V/C nexus; but it could also be understood as a ***Predicate Adjective phrase*** describing the Subject (= I'm busy), or an **Indirect Object** of the verb 'be' – in both cases, it would then fill the Compliment slot).

S_1 V_1 $C_{1(DO)}$ S_2 V_2 $C_{(zero)}$

//[You]/Keep/it /down // - //I / am on the phone //
                                        Adv. of Place phrase
        How?   **Where?**

[S_1] V_1 $C_{1(DO)}$ S_2 V_2 $C_{2(PA)}$

//[You]/Keep/it /down // - //I / am / on the phone //

        How?   **Which kind?**

Compound sentence

[S_1] V_1 $C_{1(DO)}$ S_2 V_2 $C_{2(PA)}$

//[You]/Keep/it /down // - //I / am / on the phone //

        How?   **On what?**

Compound sentence

Example 7.

Everything that civilized humanity remembers and knows at present, all the accumulated experience in books, monuments and manuscripts – all this colossal expansion of the human memory, without which there could be no historical and cultural development, Is due precisely to external human memorization based on symbols (Vygotsky: 1930).

Which everything?

$S_{1.1}$ S_2 $V_{2.1}$ $V_{2.2}$
//Everything **that** civilized humanity remembers and knows at present,

Which experience?

$S_{1.2}$
all the accumulated **experience** in books, monuments and manuscripts –

Which expansion?

$S_{1.3}$ C_3 V_3 S_3
all this colossal **expansion** of human memory, **without which** there could be no historical & cultural development,

Which expansion?

Why?   Which memorization?

V_1 / $C_{1 (ZERO)}$
/is   due precisely to external human memorization based on symbols //

$S_{1.1}$, $S_{1.2}$, $S_{1.3}$	V_1	$C_{1(ZERO)}$

Adjective clauses

As can be seen from the above examples, syntactic analysis becomes easily comprehensible when grammatical functions of words and groups of words in the sentence are assigned based on the logical relations between them. The logic of human thought – generalization – is universal; therefore, the principles of human understanding (associations by resemblance, contiguity, and cause/effect) determine the grammatical functions of words and groups of words in the sentence (that is, the 'parts of speech'). Consequently, all human languages have only eight parts of speech (word classes).

G-nalysis uses the logic of human thought to expose the grammatical functions of words in the sentence and the relationships between them – that is why it is easily comprehensible to students of language at all levels. It is for the reason of this simplicity that it should be taught in secondary schools, to improve the students' language and critical thinking skills.

V. CONCLUSION

We communicate by building infinitely diverse structures of complex meaning (phrases, clauses, etc.) out of the building blocks of social signs (word-meanings). Complex meanings of sentence-mosaics come into existence in human minds through the linguistic structures that embody them – they cannot be viewed in isolation from the physical structures that embody them, or from the individual minds that see them, each through their own Mind's Eye.

Just as buildings of different architectural styles (Gothic, Baroque, Neoclassical, Islamic, etc.) are held together by firm foundations and strong supports, so the diverse linguistic structures societies create (isolating, agglutinating, synthetic, SVO, SOV, VOS, VSO, OSV, OVS) are held together by the sinews of generalization (associations by resemblance, contiguity and cause/effect). These universal principles of human understanding are common to all linguistic structures, irrespective of their style/ form and the 'building materials' (sounds, morphemes, words) that form them.

To become an expert builder, one needs to understand the universal principles of construction; to become a good communicator, one needs to understand the universal principles of human understanding that shape all linguistic structures. Generalizing sentence analysis exposes the logical connections between parts of the sentence mosaic and teaches students to use the Rational Mechanism of Language – Generalization.

I have argued that the ***generalizing syntactic analysis*** (G-nalysis):

- Harnesses the energy and creativity of living, *thinking* minds spinning their unique individual 'webs of significance': '*There is nothing that is either good or bad, but thinking makes it so.*'
- Uses the universal mechanism of human thought (generalization) to explain syntactic structures
- G-nalysis assigns grammatical functions to words and groups of words (phrases and clauses) in the main sentence according to perceived logical relationships between them. The purpose of G-nalysis is to
    - (1) Identify all the nexal patterns in the sentence, and
    - (2) Determine how all of the clauses (S/V/Cs) and phrases (groups of words that function as adjectives, adverbs, or nouns), as well as individual words relate to each other.
- Because G-nalysis reflects the workings of individual minds, it is effective in the analysis of ambiguous sentences.
- The simplicity and 'naturalness' of generalizing sentence analysis renders it enjoyable and effective at all levels of linguistic study, and particularly in secondary schools.

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