Elements of human language

Linear arrangement of words in a sentence…

W1 + W2 + W3 + W4 + W5

With a very few exceptions, most human languages arrange their words in a linear order to produce sentences.

This helps the natives to pronounce and thus produce these elements of language easily.

It also infuses the power of encoding or decoding into these elements because they become the part of human communication.

This is THE ONLY possible way to make one string of words different from others with regard to their semantic contents.

If you read on the topic ‘componential analysis’ of word meaning in semantics, you will have some fair idea about what does it mean to say ‘sematic contents’ of a word!

Componential Analysis

Kinship terms	[MALE]	[ASCEND]	[DESCEND]	[LINEAL]
Father	+	+	-	+
Mother	-	+	-	+
Uncle	+	+	-	-
Aunt	-	+	-	-
Brother	+	-	-	+
Sister	-	-	-	+
Son	+	-	+	+
Daughter	-	-	+	+
Nephew	+	-	+	-
Niece	-	-	+	-
Causin	+/-	-	-	-

man: [+noun] [+concrete] [+animate] [+human] [+male] [+old]

woman: [+noun] [+concrete] [+animate] [+human] [-male] [+old]

boy: [+noun] [+concrete] [+animate] [+human] [+male] [-old]

cat: [+noun] [+concrete] [+animate] [-human] [+feline]

rock: [+noun] [+concrete] [-animal]

idea: [+noun] [-concrete]

It is said that the languages of world would have been so nice and simple if the linear ordering were the only possibility for languages to arrange their elements.

The utterances could have been very short and simple and easy to understand and acquire.

However, ideas expressed by this kind of language could also have been limited.

Meaning, the human language could also have been very similar to that of many animal languages with regard to the form and function.

Thankfully, human languages have a special feature called ‘constituent-ship’ that non-human languages do not seem to have.

And even if any non-human language has it, this feature is not as developed as it is in human languages.

Power of Constituent

Constituent-ship means that linguistic elements must 'group together' or 'merge' (Chomsky-1995) in discourse.

This is a fact that all language users unconsciously know about their mother tongue. (innateness hypothesis).

So, the process of 'grouping together' or merging of elements into a sentence can be done in several ways.

And each way is uniquely grounded in some methods or principles which are similar across the board.

For example:

a. [good girls] and boys]] or [good[girls and boys]

This instance is the simplest way to show how these methods are grounded in some principled manner.

Hierarchical Structure

HS means that linguistic elements, having merged to one another or grouped together, must further 'nest' with one another like a spider web.

This means that these elements keep creating a connecting line or dot at every step of their connection to one another.

Thus, HS is said to be a good mechanism because it makes human life easier and simpler.

They also hint towards the capacity of human mind that deals with the execution of creating this spider-web.

This has been proven by psychological experiments as well as common sense that human mind can ONLY deal with a small number of things at a time.

The number of things, human mind can deal with at one time, has been suggested to 'from four to six' at the most (Payne 2006).

Take an example of a phone no. 9868608884, if this is given to us when we did not have anything to write it down, what would we do?

a. Repeat it many times, so that we **remember it for quite some time** and write it down as soon as we get something to do so.

An example of ‘short-term memory to long-term memory’ also know as ‘over-learning’.

b. We would unconsciously, however, according to our idiosyncratic style, ‘group’ the phone number into two, or more parts.

For example, 98-68-60-8884; 9868-60-8884; 9868-6088-84; 986-860-8884 or any such combination.

When we memorize these groups in a series like this, we convert the ‘groups’ into ‘units’ to ease our storage process in the memory.

Once they become ‘units’, we group them again and again to make higher and higher units with some unique embedded structure.

Hierarchical Structure in languages is a natural consequence of the same fact of human cognition, where elements are grouped into parts and parts into units and units into bigger units and so forth

Rule governed/grammaticality

We know that 'human language' is nothing but a matter of organizing the elements in different layers for the purpose of contextual retrieval.

Every language has some 'conventionalized patterns or rules' that must be obeyed in terms of constructing linguistic elements into units.

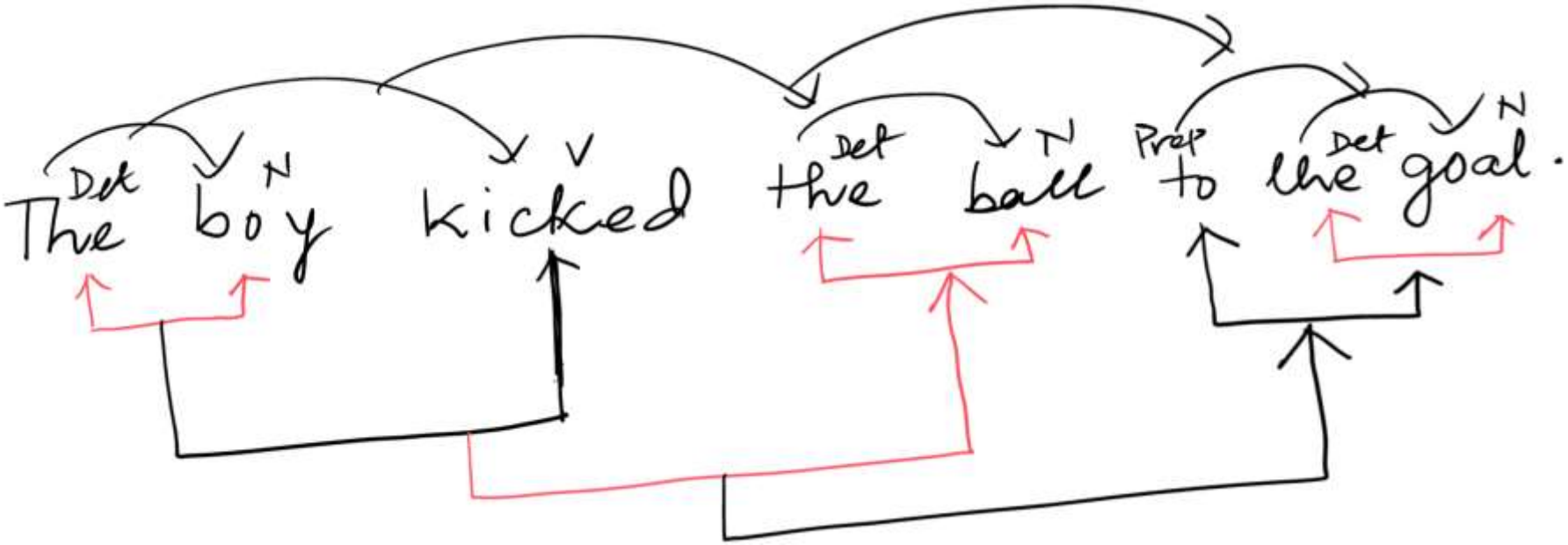
Human mind seems to compartmentalize the elements of human language into different sets for the sake of comfortable retrieval of these elements at need.

The need is the context when we want different items/elements to group together to make the communication possible.

In grouping the elements together, human mind makes use of 'predictability' over randomness in terms of the possibility of occurrence of next element.

The so called IC-Analysis i.e. immediate constituent analysis in syntax is an outcome of this mental ability of human being and storage or retrieval of the elements of his/her language.

IC-Analysis



Let us see how linguistic elements work from single nucleus to a group and to the unit..

Elements of language:

W1	+	W2	+	W3	+	W4	+	W5

Groups of elements:

the	+	boy	+	kicks	+	the	+	ball

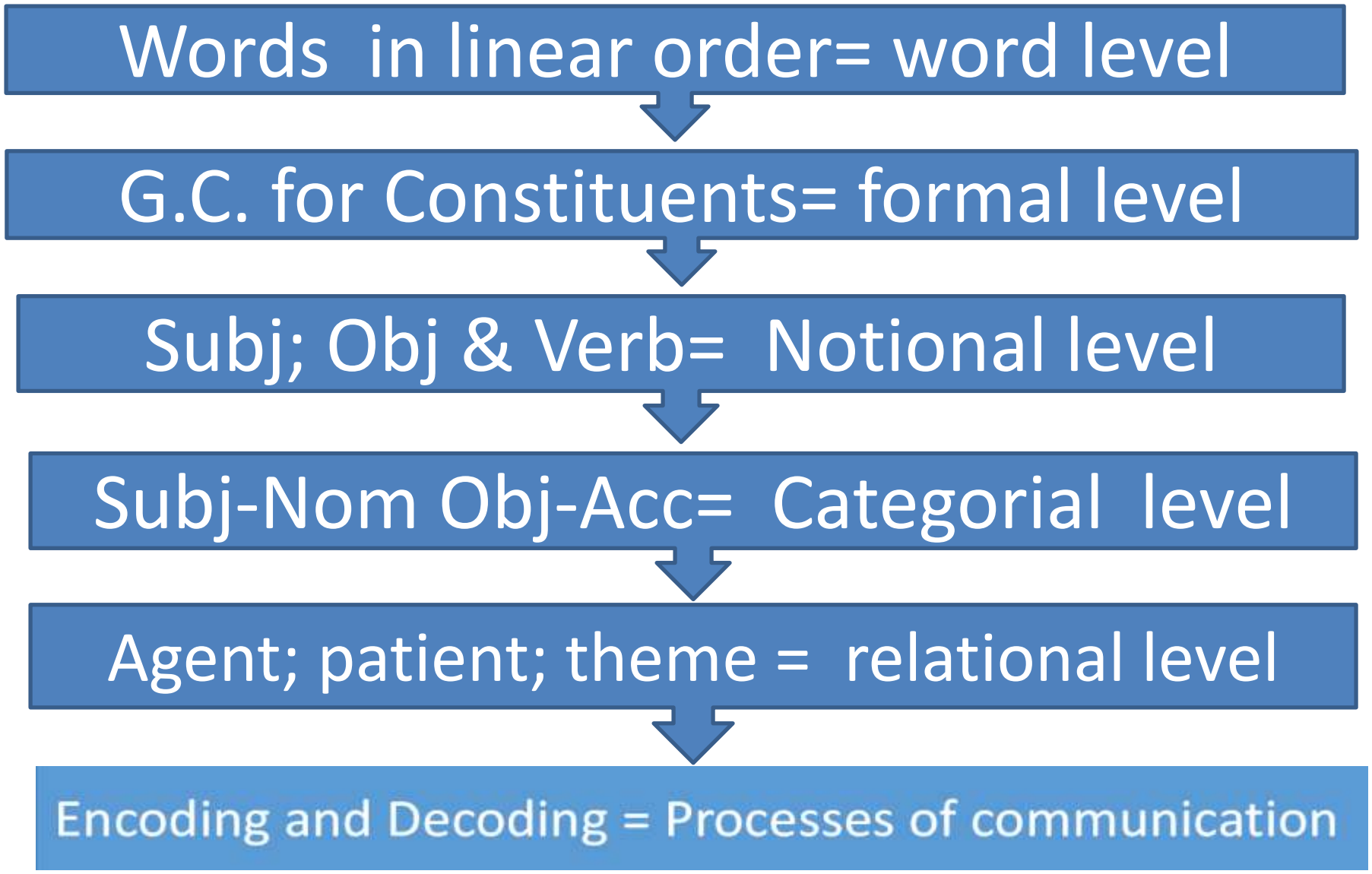
Units of language

The Det	+	boy N	+	kicks V	+	the Det	+	ball N

Higher Units of language

Subject	+	**Verb**	+	**Object**

Different organizational levels



Linguistic elements higher than words

If we want to examine the linguistic elements responsible for the production of human communication for the level that is higher than a word, we must evaluate the ‘phrases’ and the process of their formation.

Like a word(i.e. either by a sound or a group of sounds), a phrase can be made of either a word or a group of words.

When it is just one word to form a phrase things are easy, however, when there is more than a word, we have to examine the ways these words are related to one another to form a phrase.

It is but necessary that one of words has to act as a head, and others will be its dependents.

This brings to us a very useful classification of linguistic elements as ‘head and dependent’.

If we know what a ‘head’ is, anything else which is not the head will automatically be classified as dependents.

Salient features of Head

a. The grammatical category of head determines the GC of the entire phrase. For example:

1.
a. very bright [$_N$ **sunflowers**]
b. [$_V$ **overflowed**] quite quickly
c. very [$_{Adj}$ **bright**] ⇨ please ignore of not being in bold
d. quite [$_{Adv}$ **quickly**]
e. [$_P$ **inside**] the house

b. The head must have the same 'distribution' as that of the phrase.

What does it mean to say 'distributional properties' of a lexical category?

For example, Noun is a lexical category and it can be the head of a phrase, so what are the distributional properties of a NOUN?

Distributional properties of a Noun

1. Noun, as a head word, should be able to occur at the subject and object (s) positions.
2. It must be modifiable by some modifiers (i.e. all kinds of determiners and the genitive)
3. It should be able to go through the process of pluralization.
4. An article must be able to make it definite or indefinite
5. It must be quantifiable
6. It should be able to take numeral modifiers as well.
7. 4, 5 and 6 are actually an extension of 2, but there are differences as well.

Examples:

We could take any noun in English to exemplify these distributions of Noun.

However, we will take a derived nominal to check all the distributional values.

If we can testify all the distributions of a noun for a derived one, we talk about some other complex issues later.

1. a. Dancing is good for you.

1.b. I like dancing.

2. a. I like slow dancing.

2.b. His dancing is annoying.

?3. Dancings are hard on this floor.

4. The dancing on the street is funny.

5. Every dancing is different.

6. I could not follow even one of her dancing steps.

C. It is not possible to omit/delete the ‘head’ from the phrase.

There are some rare situations where the head might be omitted, but it is either due to the economy of the speech in some context,

Or may be that the head has just been mentioned and then omitted. For example:

In answering the question ‘Are you angry?’, one can just say, ‘very much’ but this is not the usual answer in English, and we rather say, ‘Yes, I am very much angry’.

D. The ‘head’ obligatorily has to select its ‘dependent(s)’.

This means there may be some contexts where even the dependents to a head also cannot be omitted or deleted.

For example:

a. The soldiers ***released*** the hostage.
b. The soldiers ***killed*** the enemies.
c. She lives ***beside*** the wood.
d. She went ***into*** the building.

These examples show that the heads in bold have to select their respective dependents, and without these dependents the sentences would be ungrammatical.

The influence of the head on their dependents

1. *The heads select their dependent from a particular class.*

Thus, in English a head noun can be modified by an adjective but not by an adverb. For example

a. ***Bright sunflowers*** is ok, but ***brightly sunflowers*** is not ok.

b. In Kamera (Austronesian) language an adverb *'lalu',* 'too' can modify a verb but not a noun.

a.	lalu	mbana-na	na	lodu
	too	hot-3sg	the	sun
	'The sun is too hot'.			
b.	* lalu	lodu		
	too	sun		

2. Another influence that the 'head' of any phrase has on its dependents is that it might require the dependents to ***agree*** with various grammatical features of the head.

One such grammatical feature is ***grammatical gender*** of the noun in NPs.

We know that not all languages make the distinction of the grammatical gender for every noun.

But in those where this distinction is made, the dependents to a head noun often display 'gender agreement' with the head.

Let us see the examples from French, Hindi and Punjabi

a.	un	livre	vert		b.	une	pomme	verte
	one-M	book-3MS	green-M			one-F	apple-3FS	green-F
	'One green book'.					'One green apple'.		

:

a.	sɑ̃r-e	ləmb-e	əcc^{h}-e	lərk-e	b.	ləmbi-yɑ̃	c^{h}əngi-yɑ̃	kuri-yɑ̃	
	all-Pl	tall-M-Pl	good-M-Pl	boy-M-Pl		tall-F-Pl	beautiful-F-Pl	girl-F-Pl	
	'All tall good boys'.	(Hindi)				'Beautiful tall girls'.			

3. In many languages, a head would want its dependents to occur in a particular grammatical case.

For example, in Japanese, in Hindi

a. kodomo-ga hon-o yon-da
child-Nom book-Acc read-pst
'The child read the book'.

Since the verb in the Japanese sentence is 'transitive' and thus will have two arguments; therefore two dependent NPs. These two NPs in Japanese must occur with Nominative and Accusative Case suffixes.

Let us examine the Hindi data:

a. bəcc^{h}e-ne mɑ-ko dek^{h}-ɑ
child-Erg mother-Acc see-3MS-pst
'The child saw (her) mother'.

As we saw in case of Japanese, we see similar thing in the above example of Hindi,

The transitive verb of the clause which acts as the head for the sentential unification, and thus has taken two arguments; each of which bears the required grammatical cases i.e. Nominative (ergative) and accusative.

- Now let us evaluate the position of ‘head’ and ‘dependents’ available in a two-way system for the typology of languages in the world.
- It has been discovered cross linguistically that there is a very strong tendency of placing the head and dependent in almost fixed position.
- These two types are known as; **head-initial** VS **head-final.**
- A head-initial language would place its heads before the complements/dependents, while a head-final would do the reverse.
- Let us examine each of these systems:

Head-initial and Head-final languages :

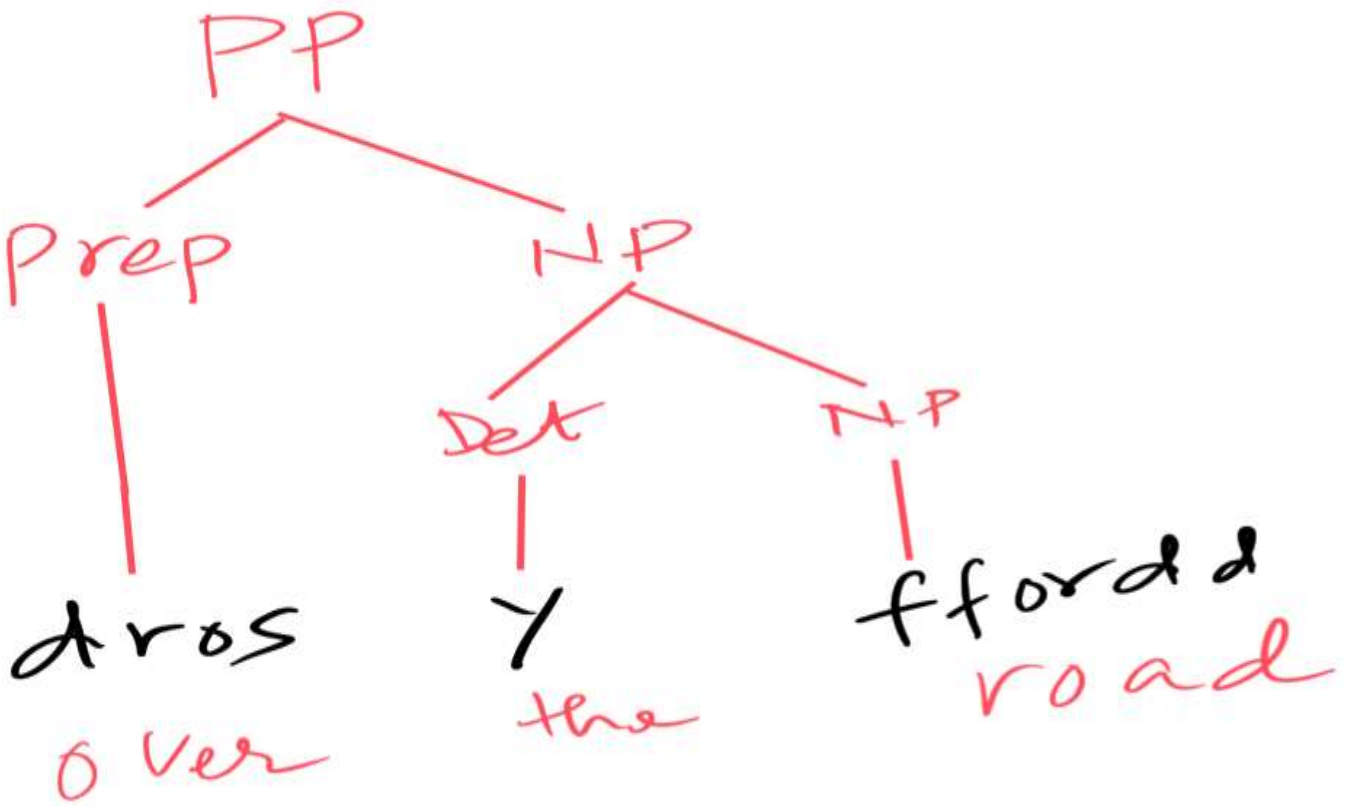
- If a language is head initial, the head in these languages would precede its complement/dependents. For example
- **English:**
- [$_{VP}$ ***likes*** chips]
- [$_{pp}$ ***into*** the water]
- [$_{AP}$ ***fond*** of chips]
- [$_{NP}$ ***manufacturer*** of tires]
- It is interesting to examine these phrases in English.
- The heads, ***into*** and ***like*** precede their complement NPs.
- And, the adjective head ***fond***, and noun head ***manufacturer*** also precede their complement PP.
- Thus, English qualifies well for Head-Initial type.

- Welsh (Celtic language with VSO order) is a good example of head-initial language.
- Let us examine how **Preposition** as a head precedes the NP complement in a PP and the verb as a head precedes its NP-complement (the direct object) in in a VP in the following phrases:
- Welsh:

a. [PP **dros** y ffordd]
over the road

b. ddaru ceri [VP **yfed** paned o de]
did Ceri drink cupful of tea
'Ceri drank a cup of tea'.

Welsh



Carnie et al. (2005) Verb first: on the Syntax Verb Initial Languages- John Benjamins

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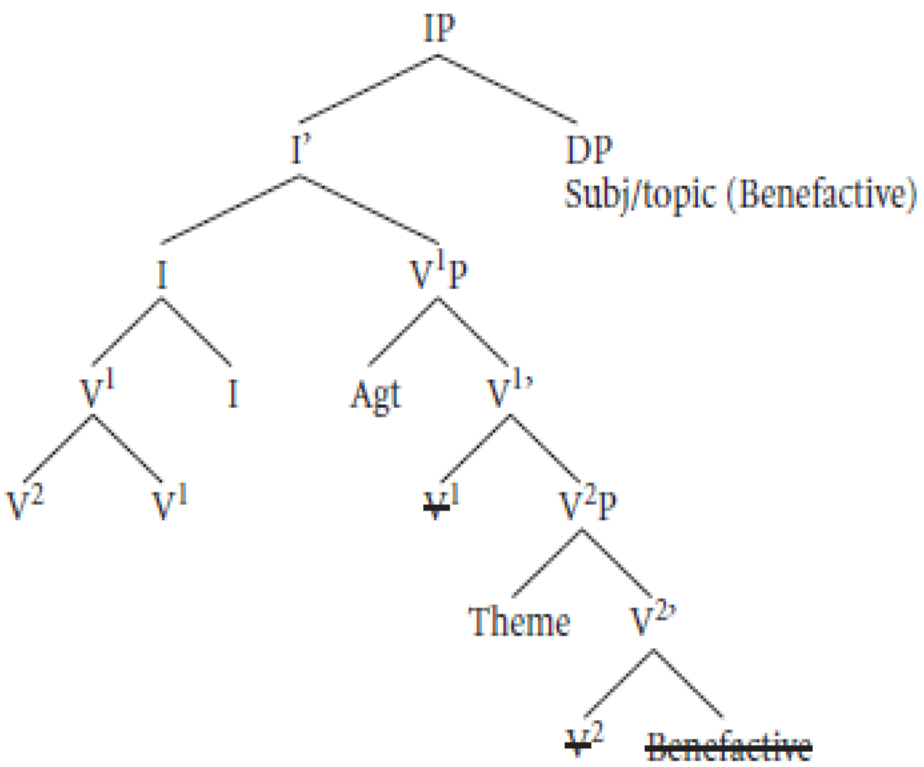
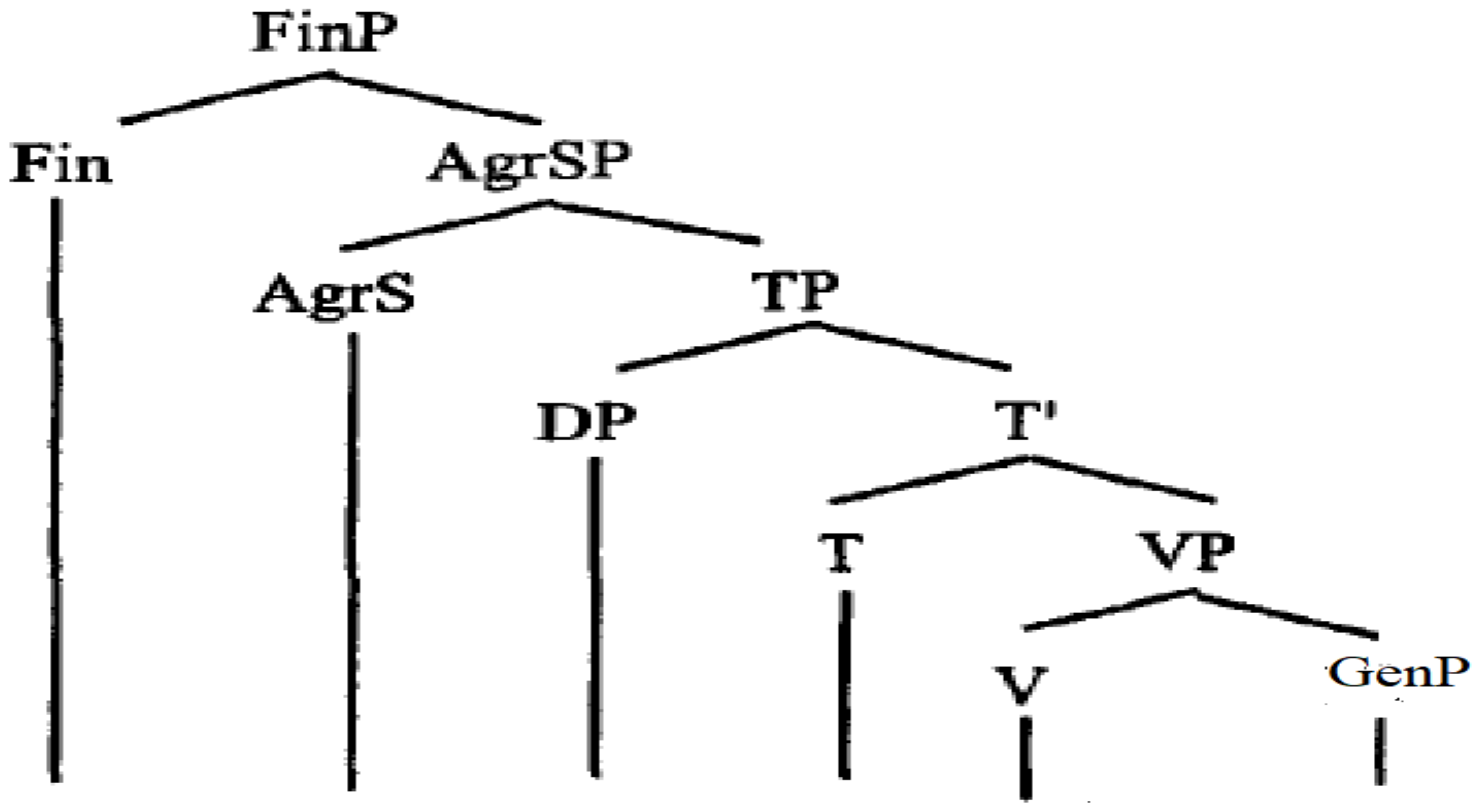


Roberts, Ian (2005) Principles and Parameters in a VSO Language: A Case Study in Welsh. OUP (Page 43).



Tinrin (an Austronesian language SVO) also qualifies as the head-initial language.

The examples below will prove the fact where we will see the verb (head) occurs before the complement clause and the head noun also precedes its complement PP:

Tinrin:

a. u [VP **trɑmwɑ̃** mwɑ̃ ke mɑija wɑke]
I know that you much work
'I know that you work hard'.

b. [NP **kò** rugi beebòrrò nrà mwiề]
news about drowning poss woman
'The news of the woman's drowning'.

Tinrin as a head initial language

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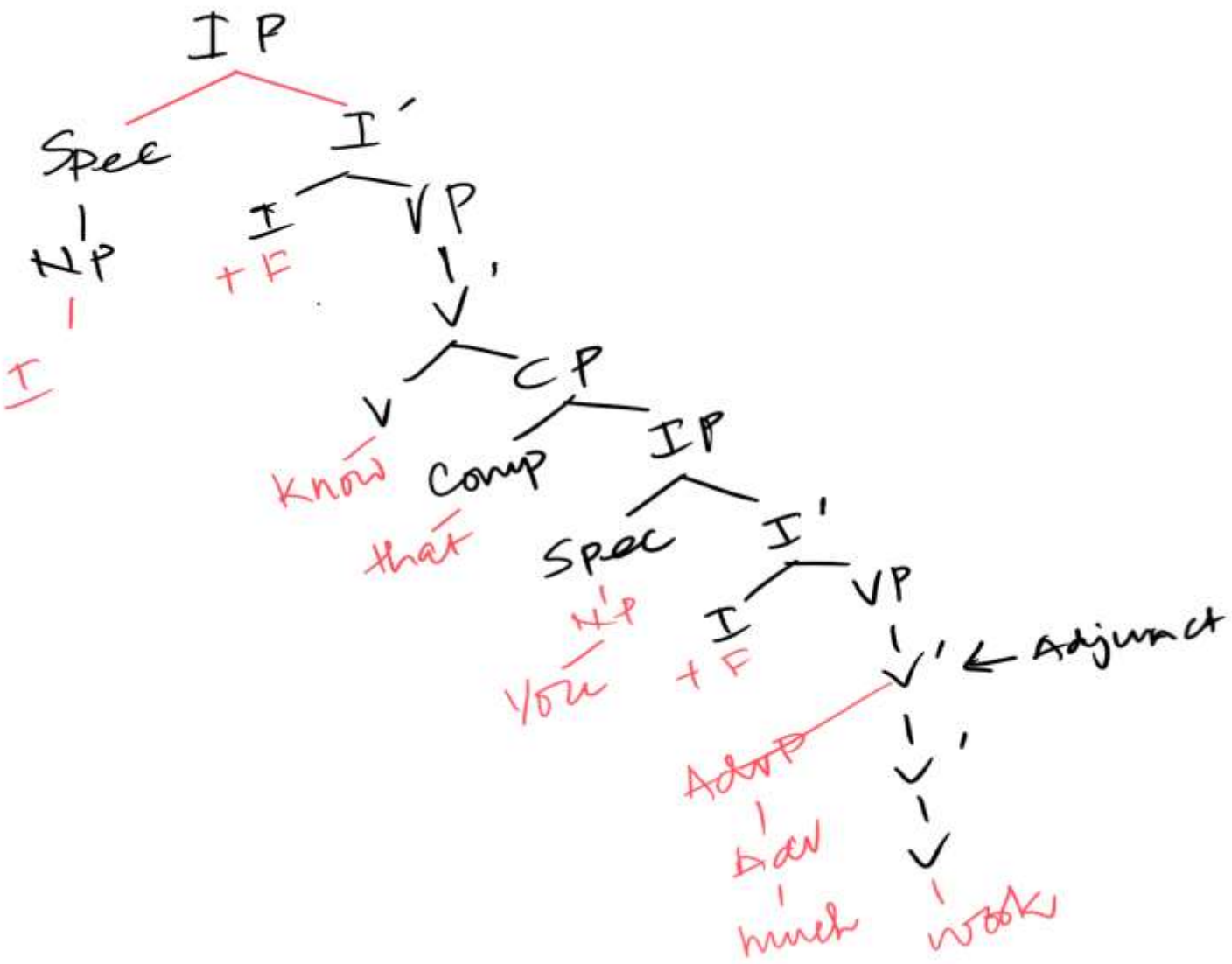

- ‘Head-final’ languages would be the languages in which the head follows the complements/ dependents.
- Different kinds of structure of phrases in Japanese, Turkish and Hindi would exemplify the concept of ‘Head-final’:
- Japanese:

a. taro-ga [VP tana-ni hon-o **oita**]
Tora-Nom shelf-Loc book-Acc put
‘Tora put the book on the shelf’.

b. [PP tomodati-**to**]
friend -with

c. [NP sono esuto e no **zisin**]
that test to poss confidence
‘Confidence in that test’

Japanese as a head final language

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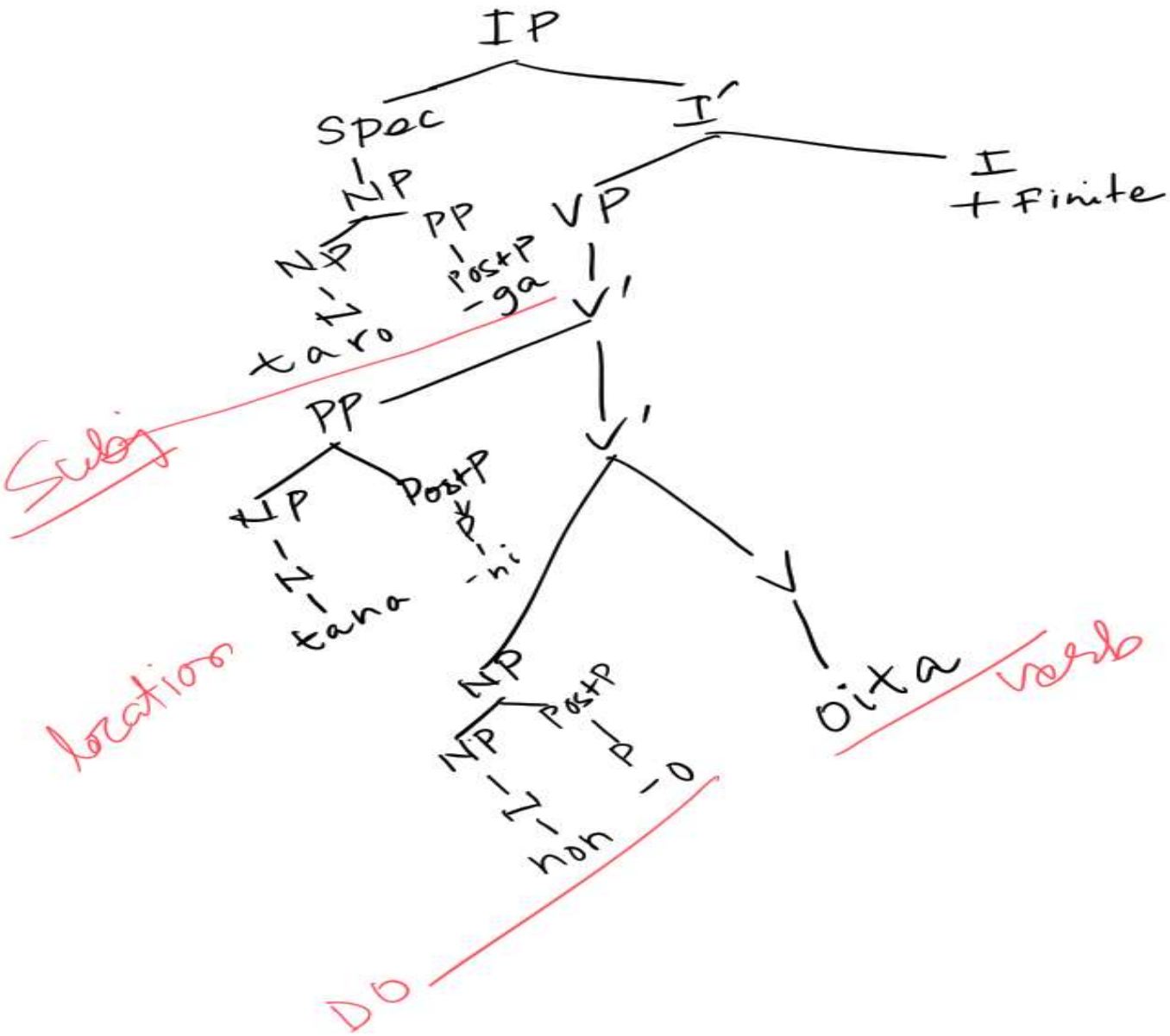

In the above Japanese example (a), the verb is the head and the verb occurs at the end of the sentence,

and other two dependents (complements) **shelf** and **table** precede the head word i.e. the verb.

Similarly in (b), the head is the postposition and it occurs after the complement NP.

Finally, the head noun follows its complements in example (c).

Turkish a. [AP kocɑ-sɪn-ɑ sɑdik]
husband-3S-Dat loyal
'loyal to her husband'

As we see in the above Turkish example, the complements of this adjective occur before the head word 'sɑdik' which occurs as the final word in the phrase and functions as the head.

Hindi:

a. rɑm-ne [VP roti kʰɑ-yi]
Ram-3MS-Erg bread eat-perf-F
'Ram ate the bread'.

b. [PP kɪtɑb tebul-ke upər]
book table-Loc
'Book on the table'

The above Hindi examples prove that Hindi is a Head-final language.

The example (a) has the verb as the head and both the complement NPs occur before the verb.

In example (b), the PP which functions as the head of the phrase comes after its complement NPs.