

Word order Correlation/ Constituent order Correlations

- Word order correlations are actually the offspring of implicational universals which was first pointed out by the scholars of Prague School and later developed by Greenberg, Joseph (1963).
- Thus, it is considered one of the greatest contributions of Greenberg in the field of typology.
- He not only utilized the notion of implicational universal proposed by the Prague School, but also paved the way for the notion of CORRELATIONS in order to state the universals of languages.

In its simplest way, the notion of correlation means if we know the relative ordering of S, O and V in a language, we could also predict the ordering of other elements of the constituents in that language.

- The idea of correlational value for the language universals was proposed by Greenberg(1963) in his seminal paper (hope the class will have read the paper before this weekend and do the homework and submit on 17th Oct'22).
- Later, Lehmann, Winfred P. (1973, 1978) developed it further in order to explain the predictability of the implicational universals in languages.
- With Greenberg's universals, it was very clear that the order of S, O and V is used as a pre-conditioned tool for making the statements about the order of other constituents in the languages.
- In particular the Universals 3-5, 7, 10, 12, 13, 15-17, and 21 mainly highlights the correlations of different types.
- Let us see these universals:

- *Universal 3. Languages with dominant VSO order are always prepositional.* Arabic, Welsh etc.

Arabic: favours VSO				
wadae	əl- <u>mue</u> alim	əl- <u>ki</u> tāb	ealā	əl- <u>tawil</u> atī
put- Pst	Def -teacher	Def -book	on	Def -table
‘The teacher put the book on the table’.				

- *Universal 4. With overwhelmingly greater than chance frequency, languages with normal SOV order are postpositional.*
- Hindi and all the languages of India (except Khasi), Turkish, Hungarian, Kazakh, Pasto, Latin, Burmish, Persian (with exceptions) etc. satisfy this condition:

Hindi allows SOV

laṛke-ne kitab meṛ-pər rəkh-i
 boy-3MS-erg book-f table-Loc put-3FS-Pst
 ‘The boy put the book on the table’.

Universal 5. If a language has dominant SOV order and the genitive follows the governing noun, then the adjective likewise follows the noun.

Hindi allows SOV, however, one of the correlations is not attested

ram-ke bhai-ne ek achha makan banaya
ram-Gen brother-Erg one good house make-pst-3MS
'Ram's brother made a good house'.

Khasi is a verb media language i.e. SVO but

4. The adjectives follow the head noun.

Example: ka kɔt ba bʰa
PNG book AdjMkr good
'A good book'

5. Genitive follows the governed noun.

Example: ka kɔt jɔŋ ŋa
PNG book GEN I
'My book'

Universal 7. If in a language with dominant SOV order, and there is no alternative basic order, or only OSV as the alternative, then all adverbial modifiers of the verb likewise precede the verb.

Hindi is a SOV language and allows OSV as an alternative order, thus it satisfies the correlational claim of the word order:

<u>yatryō-ne</u>	<u>kāp^hi</u> der	<u>tāk</u>	<u>intəjār</u>	<u>kīya</u>	
passenger-3Pl-Erg	enough	late	till	wait	do-pst-3MS
'The passengers waited for a long time'					

Universal 10. Question particles or affixes, when specified in position by reference to a particular word in the sentence,(they) almost always follow that word. Such particles do not occur in languages with dominant order VSO.

In [Maybrat](#) ([West Papuan](#); Papua, Indonesia), the interrogative morpheme is a particle that is added at the end of the sentence, as in:

(1) [Maybrat](#) ([Dol 1999](#): 200) SVO

ana	m-amo	Kumurkek	a
3Pl	3Pl-go	Kumurkek	Qmk

'Are they going to Kumurkek?'

Universal 12. If a language has dominant order VSO in declarative sentences, it always puts interrogative words first in interrogative or question sentences; if it has dominant order SOV in declarative sentences, there is no such inversion rule.

Welsh: a VSO language

mae Alex yn-siarad y cymraeg

do-3S Alex V-N-speak DEF Welsh

Aux. Subject Verb-Noun Object

‘Does Alex speak Welsh’?

Since VSO and SVO languages share lots of correlational properties, we could also say in English:

What did you put on the oven for lunch ?

Wh-word aux Subj Verb Obj (oblique and other types)

Other relevant universals

- *Universal 13*. If the nominal object always precedes the verb, then verb forms that are *subordinate to the main* verb will also precede it.

SOV: मैं रोटी खाना चाहता हूँ |

mē roṭī k^ha-na čahə-ta hū
I-Nom bread-Acc eat-inf want-imp-1MS be-pres-1MS
'I want to eat bread'.

SVO: I want to eat bread.

I-Nom want-imp-1S eat-inf bread-Acc
'I want to eat bread'.

Other relevant universals

- *Universal 15.* In expressions of volition and purpose, a subordinate verbal form always follows the main verb as the normal order except in those languages in which the nominal object always precedes the verb.
- *Universal 16.* In languages with dominant order VSO, an inflected auxiliary always precedes the main verb. In languages with dominant order SOV, an inflected auxiliary always follows the main verb.
- *Universal 17.* With overwhelmingly more than chance frequency, languages with dominant order VSO have the adjective after the noun.
- *Universal 21.* If some or all adverbs follow the adjective they modify, then the language is one in which the qualifying adjective follows the noun and the verb precedes its nominal object as the dominant order.

The implicational predictability helped Lehmann to conclude that the order of *verb and object* in languages is somewhat very basic to the ordering of other constituents for many given languages (Comrie 1981, Tallerman 2011).

Therefore, if we know the relative ordering of V and O, we can predict the ordering of other pairs such as nouns, relative clause, genitives, adjectives, adpositions and so on.

Let us see Lehmann's correlation pairs are given in Table 1:

TABLE (1) Lehmann's Constituent Order Correlations

Word order/constituent order Correlation

VO

1. Preposition + noun
2. Noun + genitive
3. Noun + adjective
4. Noun + relative clause
5. Sentence-initial question word
6. Prefixes
7. Auxiliary verb + main verb
8. Comparative adjective + standard of comp
9. Verb + adverb
10. Negative + verb
11. Subordinator + Clause

OV

1. Noun + postposition
2. Genitive + noun
3. Adjective + noun
4. Relative clause + noun
5. Non-initial question word
6. Suffixes
7. Main verb + auxiliary verb
8. Standard of comp + comparative adjective
9. Adverb + verb
10. Verb + negative
11. Clause + subordinator

•PS: Please check these correlations in your mother tongue and see how far Lehmann's proposal is justified.

Khorth^ha (a variety of Angika) , a SOV language

1. The language has a SOV constituent order:

S		O		V
tōhē	i	kɪtəbā	k ^h ərid-le	c ^h e-l-h-o
You-hon-erg	this	book	buy-pst-3P	Perf-pst-hon-2P
‘You had bought this book’.				

2. It has postposition:

tebul	-ək	upərā	bɛt ^h
table	-Gen	the top	sit-imp-2P
‘(You) sit on the table’.			

3. The genitive precedes the governing noun:

həm-ər	<u>keniyɛ</u>	-ək	b ^h ɛ
my-gen	wife	-gen	brother
‘The brother of my wife’.			

4. The adjective precedes the noun:

tōhē b^hijələ kəpərwə pinhle-c^ho-ho
you-hon-erg wet Clothes-def wear-perf-hon-2P
'You have put on wet clothes'.

5. Relative clause precedes the noun it modifies:

je citt^hiya hamē lk^h-le c^he-li-ye u-ṭa vok-ra nē ml-le
Rel letter-def I-erg write-pst perf-pst-1P-3P that-cl him not get-pst-3P
'The letter that I wrote to him, it did not reach him'.

6. The question word is non-initial in the sentence:

həm-sab kəhā jε rəhəl c^hi-ye
we-all where go Stay-pst be-imp-1P
'Where are we going'?

7. The comparative adjective follows the standard of comparison:

niləma gitwa-sē borɔ c^h-e
Neelam Geeta-from old be-imp-pres
'Neelam is older than Geeta'.

8. The auxiliary verb follows the main verb:
 babuji kəhā jε rəhəl c^h-e
 father where go Stay-pst be-imp-3P
 ‘Where is father going’?

9. The adverb precedes the main verb:
 kərima bəhut tej dɔrɛ c^h-e
 Kareem very fast run be-imp-pres
 ‘Kareem runs very fast’.

10. The negative particle comes before the main verb:
 həmə kɛrwa nɛ k^ha-bo
 I-erg banana not eat-fut-1P
 ‘I will not eat the banana’.

A ‘subordinator’ is a linking word that connects the embedded clause with the matrix clause.

Some subordinators can precede the matrix clause and some can follow it and languages are quite flexible for the occurrence of such linking words. For example;

11	<u>həlāke</u>	hamě	ɔkəra	<u>bola-li-yo</u>	(<u>lekě</u>)	ʊ	kəma-pă	ně	a-to
	although	I-1S-Erg	him	call-Pst-1S	but	he-3S-Nom	work-Loc	Neg	come-Imp-Fut
	‘Although, I called him, (but) he won’t come for the work’.								

- Lehmann's proposal, in its most simplified manner, seems to capture an astonishing fact about the ways in which languages behave.
- Unfortunately, the empirical evidence for Lehmann's correlations is not so straightforward.
- After all, he doesn't explain anything about the order of OV/VO and the prediction of the order of other linguistic elements in languages!
- This is why, it is quite common for languages not to be fully consistent in following the expected or predicted patterns.
- English is one such example. English manifests the patterns predicted for VO languages and it has prepositions, it can use noun-genitive order ("king of England" wait for other form of Genitive ☺).
- It also places relative clauses after nouns, puts auxiliaries, manner adverbs, and negatives before the verb, and sets up comparative adjective marker before the standard of comparison.

However, it violates Lehmann's predictions by employing the adjective-noun order, having a genitive-noun pattern ("England's king"), and being largely suffixal language in terms of using the affixes.

- In order to account for these structural "inconsistencies," Lehmann (1973) invokes a historical explanation:
- "When languages show patterns other than those expected, we may postulate that they are undergoing a transitional phase of change".
- Therefore, 'consistent OV-patterned' and 'consistent VO-patterned' languages are the ideals, but languages in the process of changing from one type to another might exhibit properties of both.
- The second problem with Lehmann's list of correlation pairs is that he offers no explanation for why should such correlations of linguistic elements occur in this fixed manner.

The issues of word-order and the predictability of the occurrences of other elements have always been proven both by the functionalists as well as by the formalists by taking of help of the contiguity of VO/OV.

And they have also helped us to understand such preferences by providing some explanations which are grounded in the theory.

However, in terms of Lehmann's correlation, no such explanation has been given for the correlations and the occurrences of other linguistic elements in different languages!

What is there so special about the structural relationship of nouns and relative clauses, verbs and auxiliaries, and so on that should cause them to occur/pattern in accordance with the order of V and O?

The explanation for such questions came from Venneman, Theo in his research done during different period i.e. 1973, 1974 and 1976.

He claims that there is a deeper functional and cognitive relationship for these correlations in languages.

Languages have **a tendency** to consistently order **heads and dependents** in some fixed manner regardless of the word class they belong to.

We will have a full-fledged class not just on the relationship between 'head and dependent' but also how linguistic features are marked on 'head or dependent' in different languages and thus classified as 'head or dependent marking' languages.

But till then we can understand the notion in the following simple manner.

Broadly speaking, a head is the central element of a construction and the dependents, on the other hand, generally modify the head or might serve as supplements to the heads.

The biggest advantage in accepting Venneman's proposal is that by framing word order universals in terms of heads and dependents, he has made all the CORRELATIONS bilateral.

It means if we know the order of ad-positions (pre-/ post-) and the position of the noun in a language, we can easily predict the order of V and O in that language.

It means that Lehmann's explanation of 'verb-object order' as the **basic order to the correlation** is not really required, because the ordering of these elements is actually grounded in some abstract and well-established notions of head and dependent.

- The proposal is better than the earlier ones; however, there are still some problems which cannot be explained even under the notion of head and dependent.
- For example, there is a violation to the notion of head and dependent relations to that of the adjective and noun.
- The notion of head and dependent is also violated in relative clauses in different languages where there seems to be more than one options for the elements that exemplify head and dependent.
- It is for this reason that Hawkins, John A. (1983) stepped in and looked at the problems mentioned above and offered some explanation.
- Hawkins (1983) has proposed that it is better to examine the constituent order in the languages with regard to a THREE way distinction i.e. verb-initial, verb-medial and verb-final, rather than having only a two way distinction and getting so many exceptions.

According to him if we have a three way classification, the languages which place the verb in the beginning, middle and final positions of the sentence, they will all have different structural properties.

Hawkins has also pointed out that the organizing principles for syntactic elements can better be described by what he calls a principle of CROSS-CATEGORY HARMONY than the principle of head-dependent.

According to this principle, if a language places all its nominal dependents such as genitive, adjective and relative clauses before the noun, it will also place all its verbal dependents i.e. object, adverb, negative and auxiliaries before the verb.

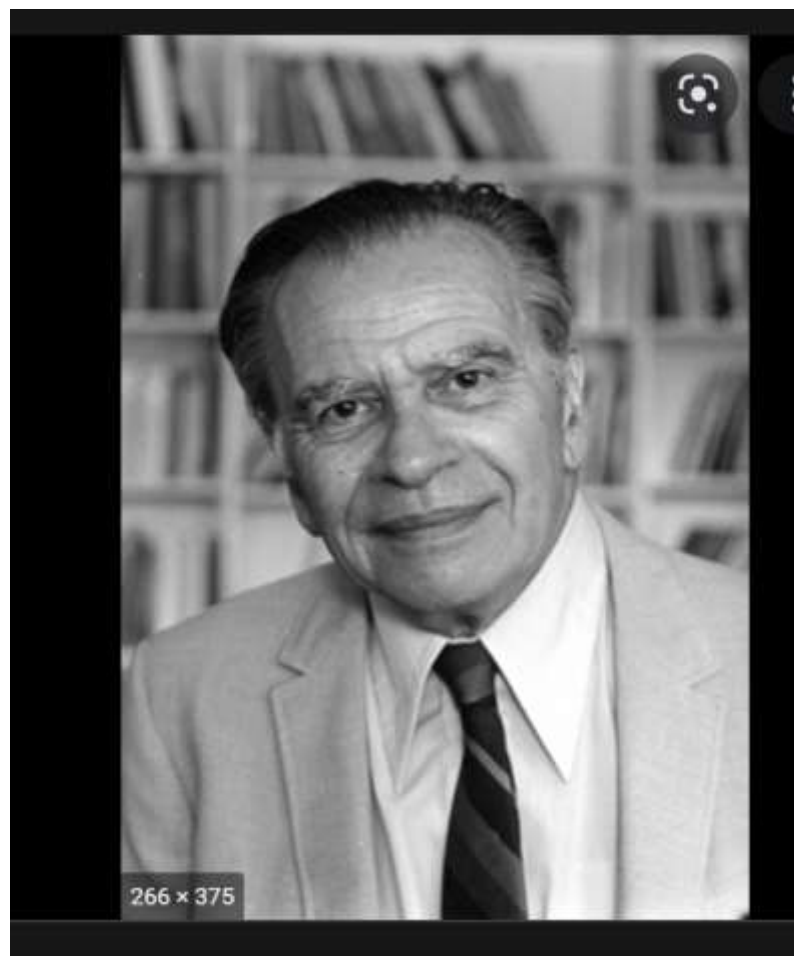
This principle, in fact, is similar in spirit to that of Venneman's, but it certainly broadens up the notion of a constituent in the language and it also has fewer exceptions.

- Hawkins also said that there is ***no single principle responsible for the linear ordering of the head and the dependent.***
- This is the best part of his proposal and it must be examined carefully.
- In a relative clause construction, the language which has VO order, there seems to be a strong preference to place the relative clause after the noun.
- The mirror image pattern i.e. OV languages must place the relative clause before the noun does not hold true.
- Hawkins proposes that there is a second functional principle in the case of relative clause that must be considered, and he terms this as the HEAVY CONSTITUENT PRINCIPLE.
- Heavy constituents are those constituents that contain a large number of grammatical elements.

- Relative clauses seem to qualify this principle as they usually contain a number of grammatical elements.
- The heavy constituent principle says that heavy constituents tend to be placed after the head that they modify.
- Therefore, although the head-dependent principle would lead to a relative clause + noun order, the heavy constituent principle would change that into a noun + relative clause.
- The two major problems of Vennemann's proposal find some explanation in Hawkins' proposal for the correlational values in human languages.
- However, what we gather from the discussion and work by the researchers like Hawkins, Venneman and others is that an incessant drive for the search of solution to any problem needs the following ingredients;

- First, some of the violations to the proposed correlations may be explicable in terms of some other competing principles.
- Second, the relative frequency of inconsistent languages might be explained by allowing a less rigid constraint than the head-dependent principle.
- The researchers in the area of language typology remain indebted to the above mentioned scholars for providing the theoretical support for the functional aspect of complicated patterns of human cognition and its connection to language structures and ultimately, generalizing the nature of language structure to some great extent.
- Nevertheless, there always remains some minor issues even for the best proposals in any sub-disciplines of linguistics and ‘language typology’ is in no way an exception to it.
- **However, the main goal of LE448L is to introduce you to the basics into the field and any extensive details of each of these proposal remains the topic for further investigation and research.**
 - That’s all 😊

Joseph Greenberg



Lehmann Winfred



Venneman Theo



Hawkins, John A.



Subordinators

Common Subordinators

Subordinator	Relationship/Meaning
although, even though, though, whereas, while	contrast
since, because	cause/effect
if, unless	condition
after, as soon as, before, whenever, when, until	time