Universalism and Levels of Analysis

ABSTRACT

Any system as complex as human language is bound to lend itself to a variety of independent approaches. At different times different aspects of language have struck peoples and thinkers' mind. One of the most controversial topics which has become the most widely used linguistic theory is Chomsky's Universal Grammar.

This paper is an attempt to present a brief account of the historical background of the idea of the universal grammar and its implications. It manifests some universal features common to all human languages. Finally it will focus on the concept of hierarchy in language by which the levels of linguistic analysis are specified.

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Universalism is a philosophical concept that some aspects or ideas have universal application or applicability. Historically the ancient Greek philosophers Plato and Aristotle believed in Universalism. Some early observation -based

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ideas about universality in language were proposed by Plato, who felt that word meaning mapping in some form was innate.

Although Universal grammar is fully credited to Noam Chomsky, but historical evidences reveal that the idea goes back to more than seven centuries before Chomsky.

Since the middle of 13th century Philosophers and Linguists dealt extensively with this concept. They have been divided on the question of whether there are universal properties which hold for all human languages. At present majority of linguists are on the side of universalism.

The idea of the universal grammar is traced back to the English philosopher Roger Bacon (1219 – 1292) in his (Overview of Grammar 1245) and (Greek Grammar 1268) declared that all languages are built upon a common grammar.

In the 13th century the grammarians, following Bacon, postulated universal rules underlying all grammars.

Archbishop of Canterbury in England Robert Kilwardby (1215 – 1279) held that linguists should be concerned with discovering the nature of the language in general. Kilwardby was so concerned with the Universal Grammar that he excluded considerations of the characteristics of particular languages.

The concept of a universal grammar or language was at the core of the 17th century projects for philosophical languages.

In 1613 A.D the German Philosopher Alsted first used the term General Grammar as distinguished from Special Grammar. He stated that the function of General Grammar

was to reveal those feature which are common to all languages. He pointed out that the general Grammar is the (Pattern Norma) of every particular grammar.

In 1750 the French Philosopher DU Marsias (1676 – 1756) stated: (In a Grammar there are parts which pertain to all Languages. These components form what is called the (general Grammar) in addition to these general Universal parts there are those which belong only to particular language; and these constitute the particular grammars of each language).

The article on grammar in the first edition of the Encyclopedia Britannica (1771) contains an extensive section titled (Of Universal Grammar).

There is a Scottish school of universal grammarians from the 18th century, as distinguished from the philosophical language project.

Hundreds of other names and constitutions can be added who contributed to the idea of universalism in language.

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The idea of universal grammar rose to prominence and influence, in modern linguistics with theories from Chomsky since the 1950s, known as Universal Grammar Theory.

Universal grammar is not to be confused with (Universal language), or even with grammar itself.

According to Chomsky, Universal grammar is a theoretical or hypothetical system of categories, operations, and principles shared by all human languages. It is the theory of the genetic component of the language faculty. The theory proposes that there is an innate, genetically determined language faculty that specifies the rules of language, making

for children to acquire the language they are exposed to easily.

Chomsky argued that the human brain contains a limited set of constraints for organizing language. This implies in turn that all languages have a common structural basis which is the set of rules known as "universal grammar".

The basic postulate of Universal grammar is that a certain set of structural rules are innate to humans, independent of sensory experience. It treats language as a uniquely human, biologically based cognitive capacity.

Chomsky has stated that "Universal grammar is not a grammar. It is rather a metatheory for grammar". There are no rules in the traditional sense, but only principles and parameters. Principles describe potentially universal properties of grammatical operations and structures (e.g., that a sentence must always have a subject, even if it is not overtly pronounced). While Parameters is a dimension of grammatical variations between different Languages. It specifies the types of variations among different languages .

The central idea of principles and parameters is that a person's syntactic knowledge can be modelled with two formal mechanisms:
1 - A finite set of fundamental principles that are common to all languages.(e.g., that a sentence must always have a subject, even if it is not overtly pronounced).

2- A finite set of parameters that determine syntactic variability among languages; (e.g., a binary parameter that determines whether or not the subject of a sentence must be overtly pronounced (this example is sometimes referred to as the pro-drop parameter).

Within this framework, the goal of linguistics is to identify all of the principles and parameters that are universal to human language.

The following is a list of only few of Linguistic Universals presented by Chomsky and his followers:

1 - Man and Language are inseparably correlated. That means wherever man exists language exists.

2 - Any normal child born of any racial, geographical, social or economic heritage will learn the language to which she or he is exposed. This proves that the differences among languages are not due to biological reasons.

3 - There are no primitive languages.

4 - All languages are equally developed.

5 - All languages are perfect systems and are equally complex.

6 - All Languages are capable of expressing any idea in the universe. The vocabulary of any language can be expanded to include new words for new concepts.

7 - All Languages change through time.

8 - Similar grammatical categories (like verbs ,Nouns , pronouns , adjectives , adverbs ..etc.) are found in all Languages.

9 - The grammar of all languages contain of similar Phonological, morphological, and syntactic rules.

10 - Speakers of all languages are capable of producing and comprehending an infinite number of sentences.

11 – There are semantic concepts found in every language. Every language has ways of referring to different tenses, to negate, to form question.

12 – Suprasegmental elements such as stress and intonation found in every language.

13 – All languages have finite set of discrete sounds which are combined by similar rules within the frame of phonetic syllable structure to form phonological syllables.

14 – In all languages the relationship between sounds and meanings are arbitrary.

15 – All languages use the sounds produced by organs of speech. These sounds constitute the phonemic system (its phonemes) of the language in similar way.

16 - All languages use the discrete sounds produced by organs of speech. These sounds constitute the phonemic system (its phonemes) of the language through the procedure of minimal pairs and minimal sets.

17 – Hierarchy is an essential property of all human languages.

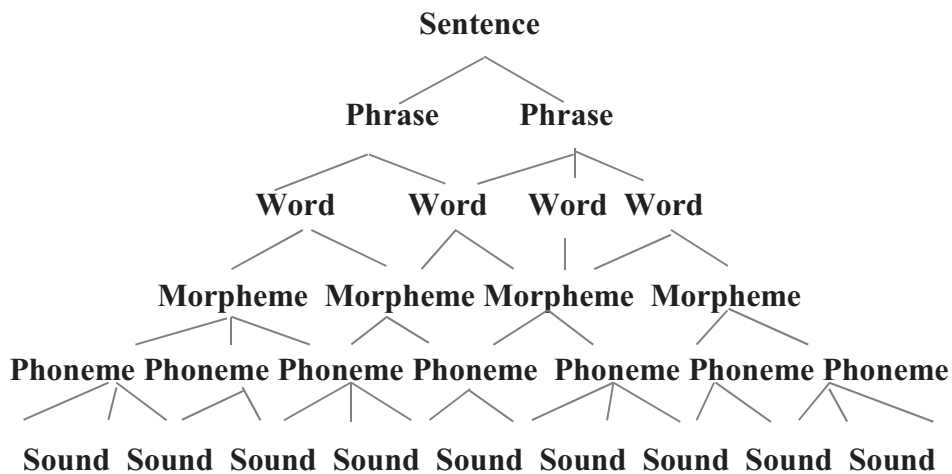   Hundreds of other entries can be added.

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Hierarchical construction is one of the greatest achievements , most important and significant discoveries of the post Saussurian twentieth century linguistics. It refers to any ordering of units or levels on a scale of size and can be illustrated from any branch of linguistics, Syntax, Morphology, Phonology, Semantics, Historical Linguistics ...etc.

All languages use the discrete sounds produced by organs of speech. These sounds constitute the phonemic system (its phonemes) of the language through the procedure of minimal pairs and minimal sets. Phonological system of language consists of a limited number of phonemes which by similar rules are combined to form syllables and morphemes. Morphemes are the smallest meaningful elements. The morphemes are combined by similar rules to form

words and words are combined by similar rules to form sentences by which full thoughts are expressed.
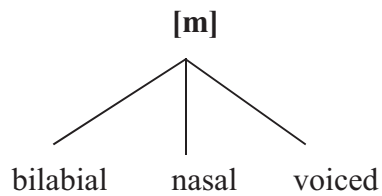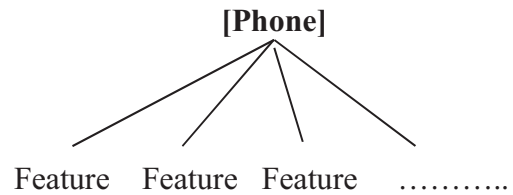
This indicates that the combinations of the individual elements of language are not only linear but also hierarchical in nature.

The hierarchical relationship between the smallest unit of language which are the individual sounds produced by organs of speech and the most complicated unit (the sentence) shown in the diagram:

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                        Sentence

                  Phrase      Phrase

              Word     Word    Word  Word

        Morpheme  Morpheme Morpheme  Morpheme

  Phoneme Phoneme Phoneme Phoneme  Phoneme Phoneme Phoneme

  Sound  Sound  Sound  Sound  Sound  Sound  Sound  Sound  Sound
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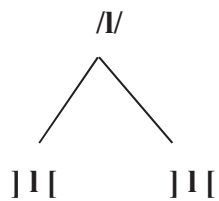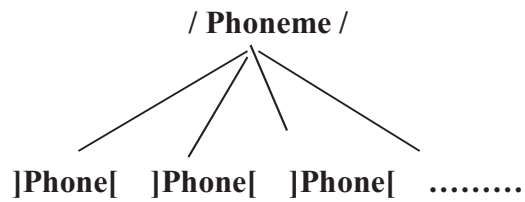
This indicates that language consists not only of coordination relations, but also of subordination dominance relations. These relations can be demonstrated at every level of linguistic analysis: Phonetics, Phonological, Morphological, and Syntactic. Each layer of the hierarchy constitute of further sub levels Level.

Phonetic Hierarchy

[Phone]

Feature   Feature   Feature   ………..

[m]

bilabial   nasal   voiced

Phonemic Hierarchy

/ Phoneme /

]Phone[   ]Phone[   ]Phone[………

/l/

] l [   ] l [

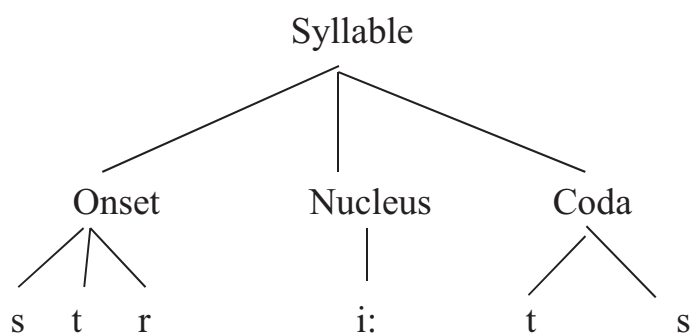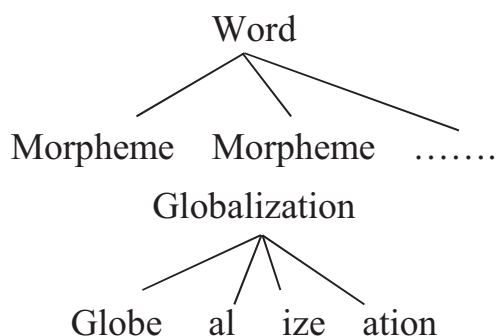## Syllable hierarchy

A syllable is a phonological unit composed of one or more phonemes. Every syllable has a nucleus which is a vowel. The nucleus may be preceded by one or more consonants
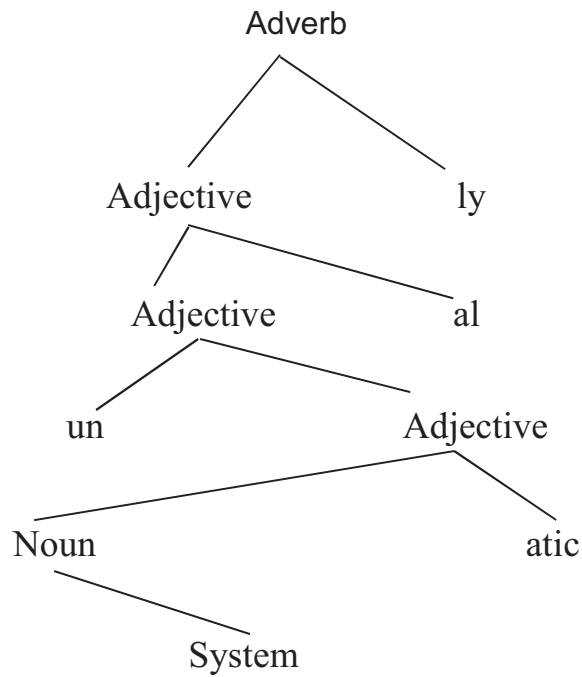
called Onset and followed by one or more consonants called Coda. The hierarchical structure of the monosyllabic word (streets) can be represented by the following diagram:

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                    Syllable
                   /    |    \
              Onset   Nucleus   Coda
             / |  \      |      /  \
            s  t   r     i:    t    s
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Word hierarchy

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                    Word
                  /   |    \
          Morpheme  Morpheme  …….
                Globalization
                /   /  \   \
            Globe  al  ize  ation
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The word is not simple sequence of morphemes. It has an internal structure. For example the word (unsystematically) is composed of five morphemes (un – system –atic – al - ly) The root is (system) , It is a noun to which the suffix (-atic) is added resulting in an adjective (systematic). To this adjective the prefix (un -) is added forming a new adjective (unsystematic).To this adjective the suffix (- al) is added forming a new adjective. To this adjective, the suffix morpheme (- ly) is added forming an adverb. These combinations can be illustrated by the following tree diagram:

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                        Adverb


              Adjective              ly


                   Adjective        al


              un             Adjective


          Noun                      atic


                   System
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This tree represents the application of four rules in this order:

1 - N + atic $\longrightarrow$ Adjective

2 - un + Adjective $\longrightarrow$ Adjective

3 - Adjective + al $\longrightarrow$ Adjective
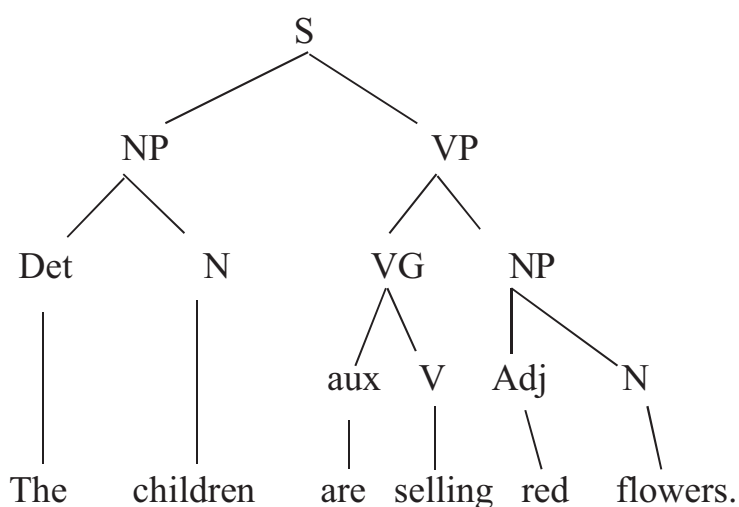
4 - Adj + ly $\longrightarrow$ Adverb

This complex word is well formed because it follows hierarchical order of the morphological rules of English language. I first (un-) added to the root (system), that would have resulted in (unsystem) which is not grammatical.

Sentence Hierarchy

Within the sentence itself, there is a hierarchical structure. For example in the sentence:

The girls are buying red flowers.

This can be divided into two parts, Subject and Predicate, in each of which there is a main part and a subordinate part. The Subject consists of a Noun Phrase (The girls), in which a noun (girls) is the head, and a determiner (The) is a modifier. The Predicate has as its head a Verb Phrase (are buying) which governs a Noun Phrase (red flowers) as its Object. The Verb Phrase has a main verb (buying) as its head and an auxiliary (are) as a subordinate part, while the Noun Phrase has as its head a noun (flowers), and an adjective (red) as a modifier.

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                          S
              ┌───────────┴───────────┐
             NP                       VP
          ┌───┴───┐            ┌───────┴───┐
         Det       N          VG           NP
          │        │        ┌──┴──┐      ┌──┴──┐
          │        │       aux    V     Adj    N
          │        │        │     │      │     │
         The    children   are selling  red  flowers.
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The levels themselves overlap and interrelate . Phonology interrelates with morphology to make morphophonemic level. Morphology interrelates with Syntax to make Mor-

phosyntactic Level. Phonology, Morphology and Syntax interrelate to make Morphpopophonosyntactic level.

Conclusion

1 -   Historical evidences reveal that the idea goes back to more than seven centuries before Chomsky.

2 - Language is immensely complicated system. This extremely complexity makes it impossible and unworkable for a linguist to describe it at once. Because of that and in order to make a scientific statement about language, the linguist concentrates at any one time on different aspects of language. These different and partial aspects are called levels of analysis. Each layer of the hierarchy constitute one level. Each level constitute of further sub levels. The levels interrelate to make higher levels, as shown in the table.

Structural Levels of analysis			
Sentence	Syntax	Morphosyntax	Morphophono-syntax
Phrase	Syntax	Morphosyntax	Morphophono-syntax
word	Morphology	Morphosyntax	Morphophono-syntax
Mor-pheme	Morphology	Morphophonemics	Morphophono-syntax
Syllable	Phonology	Morphophonemics	Morphophono-syntax
Pho-neme	Phonology	Morphophonemics	Morphophono-syntax
Sounds	Phonetics		

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