

## Syntax

The arrangement of words and phrases to create well-formed sentences in a language.

### Deep structure

In transformational grammar) the underlying logical relationships of the elements of a phrase or sentence.

"Rules of transformation change deep structure into surface structure"

### Surface structure

**Surface structure.** a **structural** representation of the final syntactic form of a sentence, as it exists after the transformational component has modified a deep **structure.** the string of words that is actually produced.

**Surface Structure :** the actual spoken sentence.

**Deep Structure :** underlying meaning of the sentence.

**A single deep structure idea can be expressed in many different Surface structures :**

**Deep Structure :** Boy kisses Girl

**Surface structure :** The boy kissed the girl.

### Surface and Deep Structure

The deep structure gives the semantic component of a sentence, while the surface structure gives the proper phonological information to express that thought.

### Structural ambiguity

**Ambiguity** that arises from the fact that two or more different syntactic structures can be assigned to one string of words. The expression *old men and women* is structurally ambiguous because it has the following two structural analyses:

(i) old [men and women]

(ii) [old men] and women

1. **Recursion** is the process of repeating items in a self-similar way. For instance, when the surfaces of two mirrors are exactly parallel with each other the nested images that occur are a form of infinite **recursion.** The term has a variety of meanings specific to a variety of disciplines ranging from **linguistics** to logic.

## Tree Diagram

- A tree diagram is a way of representing the hierarchical nature of a structure in a graphical form. It is named a "tree diagram" because the classic representation resembles a tree, even though the chart is generally upside down compared to an actual tree, with the "root" at the top and the "leaves" at the bottom.
- Tree diagram provides us visual representation of the constituents of the corresponding expression.

## Symbols used in Tree Diagram

- |                    |   |
|--------------------|---|
| • S - Sentence     | • Pro-Pronoun   |
| • NP- Noun Phrase  | • PP-Prepositional Phrase                             |
| • PN- Proper Noun  | • * Ungrammatical Sentence                            |
| • N-Noun           | • → Consists of / rewrites as                         |
| • VP-Verb Phrase   | • ( ) Optional Constituent                            |
| • Adv-Adverb       | • { } Only one of these constituents must be selected |
| • V-Verb           |   |
| • Adj-Adjective    |   |
| • Prep-Preposition |   |
| • Art-Article      |   |

## Lexical Rules

As we know, phrase structure rules generate structures. To turn those structures into recognizable English, we also need lexical rules that specify which words can be used when we rewrite constituents such as N.

- PN         $\longrightarrow$     • { Mary, George }
- N          $\longrightarrow$     • { Girl, Dog, Boy }
- Pro       $\longrightarrow$     • { It, you, he }
- Art       $\longrightarrow$     • { A, An, the }
- V         $\longrightarrow$     • { Help, run, play }

We can rely on these rules to generate the grammatical sentences but not ungrammatical sentences.

## Recursion

The rules of grammar will also need the crucial property of *recursion*. In this, we can put sentences inside other sentences and these sentences can be generated inside another sentences.

### Notice these:

- Mary helped George.
- Cathy knew that Mary helped George.
- John believed that Cathy knew that Mary helped George.

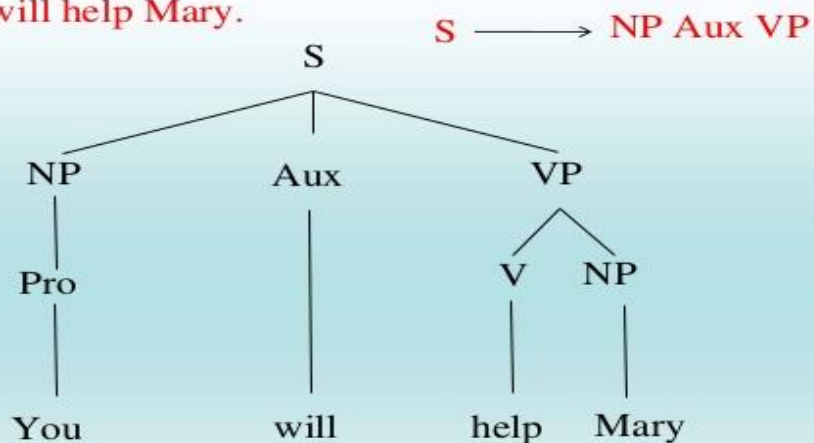
# What is Syntax ?

- ✓ Syntax is the study of sentence patterns of language.
- ✓ Syntax is the part of the grammar that represents a speaker's knowledge of the structures and formation.
- ✓ The aim of this study is to show you what **syntactic structure** is and the rules that determine syntactic structure are like.

## Movement rules

It is easy to represent Declarative forms in tree diagrams.

e.g. *You will help Mary.*



# Deep Structure

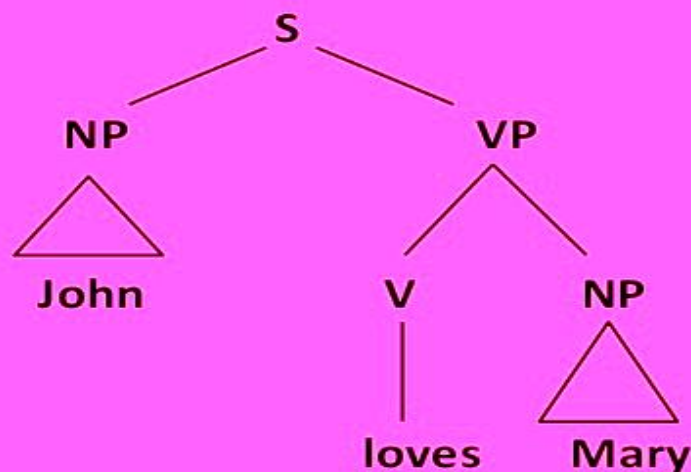
- Deep structure is the basic structure of sentences. It is specified by the “phrase structure rules”.
- Phrase structure rules create initial syntactic trees.

PS :  $S \rightarrow N VP$

$VP \rightarrow V NP$

$NP \rightarrow Det N$

- E.g. of deep structure



## Surface Structure

Surface structure is actual form of a sentence.  
It is forms of sentences resulted from  
modification/ transformation.

Surface structure is a form of language that is  
based on deep structure.

## Phrase Structure Rules

$S = NP + VP$

$VP = V + NP$

$NP = \text{det} + N$

## Tree Diagram

- E.g. A child can kick a football.

