

# **INTRODUCTION TO SYNTAX, Licence 3-LA**

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# **AIM & OBJECTIVES**

□ **Aim**: The students will learn the basics of Syntax.

□ **Objectives**:

- ❖ ***1- They will be able to delineate the boundaries of Linguistic Syntax ;***
- ❖ ***2- They will be able to account for the basic concepts of Linguistic Syntax ;***
- ❖ ***3- They will be able to analyze phrases and sentences accurately***

# Some References

- Noam Chomsky. 1965. *Aspects of the Theory of Syntax*. Cambridge. MIT Press
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  - Peter C. Culicover. 1997. *Principles and Parameters: An Introduction to Syntactic Theory*. New York: OUP
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# INTRODUCTION (1)

- ❑ Syntax is the part of the human language that studies **how sentences are structured**.
- ❑ It deals with *the process* through which words are put into phrases, and how phrases in turn are combined to form larger units called sentences.
- ❑ Syntactic rules in a grammar account for **the grammaticality of sentences**, and the ordering of words and morphemes

# INTRODUCTION (2)

- Syntax involves our knowledge of **structural ambiguity**, our knowledge that sentences may be paraphrases of each other, and our knowledge of the grammatical function of each part of a sentence, that is, of **the grammatical relations**.
- It is also concerned with speakers' ability to produce and understand an infinite set of possible sentences.

# INTRODUCTION (3)

- The sentence is regarded as **the highest-ranking unit of grammar**, and therefore that the purpose of a grammatical description is to define, making use of whatever descriptive apparatus that may be necessary (**rules, categories**, etc).
- In a nutshell, **syntax is the study of the way in which phrases and sentences are structured out of words.**

# INTRODUCTION (4)

- ❑ **Syntax** addresses questions like 'What is the structure of a sentence like *What's the president doing?* and what is the nature of the grammatical operations by which its component words are combined together to form the overall sentence structure?'
- ❑ The central assumption underpinning syntactic analysis in traditional grammar is that phrases and sentences are built up of **a series of constituents** (i.e. syntactic units), each of which belongs to a specific **grammatical category** and serves a specific **grammatical function**.

# INTRODUCTION (5)

- **Syntax** is the part of grammar that governs the form of strings by which language users make statements, ask questions, give directives, and so on. The study of syntax addresses the structure of sentences and their structural and functional relationships to one another.
- Given this assumption, the task of the linguist in analyzing the syntactic structure of any given type of sentence is to identify each of the constituents in the sentence, and (for each constituent) to say what category it belongs to and what function it serves.



# **I- Major Constituents of Sentences**

# **1.1- Syntactic Categories (1)**

## **□ Lexical categories:**

## **Examples**

❖ **Noun (N) :**

Country, man

❖ **Verb (V) :**

learn, understand

❖ **Adjective (A) :**

kind, important

❖ **Preposition (P) :**

next, about

❖ **Adverb (Adv) :**

quickly, now

# **1.1- Syntactic Categories (2)**

## **□ Non-lexical categories**

## **Examples**

❖ **Determiner (Det) :**

the, this

❖ **Degree word (Deg):**

very, more

❖ **Qualifier (Qual) :**

always, perhaps

❖ **Auxiliary (Aux) :**

will, can

❖ **Conjunction (Con) :**

and, or

# EXERCISES

❑ **Find the categories of the words in the following sentences:**

- The glass suddenly broke.
- A jogger ran towards the end of the lane.
- The peaches never appear quite ripe.
- Gillian will play the trumpet and the drums in the orchestra

# 1.2- Syntactic Structure

- ❑ **Phrases & sentences** are built up by a series of **merger** operations, each of which combines a pair of constituents together to form a larger constituent;
- ❑ One aspect of the syntactic structure of sentences is **the division of a sentence into phrases**, and those phrases into further phrases, and so forth;
- ❑ Another aspect of the syntactic structure of a sentence is "movement" relations that hold between one syntactic position in a sentence and another;
- ❑ The syntactic literature dealing with the study of how sentences are structured throws us a hint that syntactic research should not only concern how sentences are merged out of their parts, units, or constituents, but also how constituents are moved according to certain rules

(phrase structure rules or schema)

**D-structure**

(movement operations)

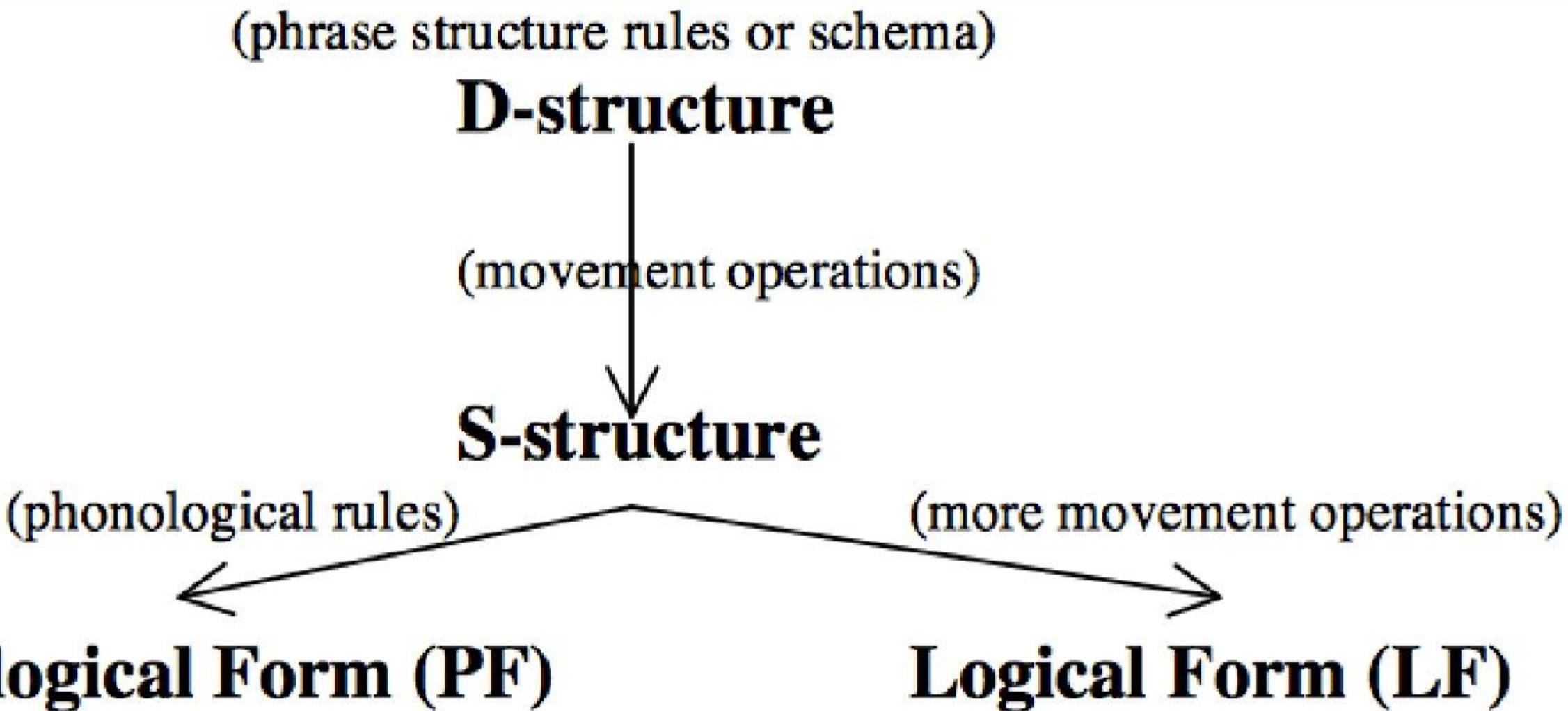
**S-structure**

(phonological rules)

**Logical Form (PF)**

(more movement operations)

**Logical Form (LF)**



# 1.3- Constituents (1)

- ❑ Constituents are structural units, which refer to any linguistic form, such as words or word groups.
- ❑ Although the term string is often used technically to refer to sequences of words, sentences are not merely strings of words in a permissible order and making sense.
- ❑ They are structured into successive components, consisting of single words or groups of words.
- ❑ These groups and single words are called constituents (i.e. structural units), and when they are considered as part of the successive unraveling of a sentence, they are known as its **immediate constituents**.

# 1.3- Constituents (2)

- ❑ When we consider the sentence *My friend came home late last night*, we find out that it consists of seven words arranged in a particular order;
- ❑ In syntax, the seven words in this model sentence are its ultimate constituents;
- ❑ This sentence and in general any sentence of the language may be represented as a particular arrangement of the ultimate constituents, which are the minimal grammatical elements, of which the sentence is composed;
- ❑ Every sentence has therefore what we will refer to as a linear structure. The small units are known as its immediate constituents.



## 1.4- Immediate Constituent Analysis (1)

- ❑ Formal accounts of syntax are based on establishing the basic *constituents*, namely, **categories**, from which word strings are formed;
- ❑ Sentences are regarded as hierarchies of interlocking smaller units, or constituents;
- ❑ After a sentence is cut into its constituent elements, the two parts that are yielded are called **Immediate Constituents**;
- ❑ Then, we get the smallest grammatical unit obtained through the division, or segmentation, which is seen as the ultimate constituent.

## 1.4- Immediate Constituent Analysis (2)

- ❑ The segmentation of the sentence up into its immediate constituents by using **binary cuttings** until its ultimate constituents are obtained is an important approach to the realization of the nature of language, called **Immediate Constituent Analysis** (IC Analysis).
  
- ❑ The analysis can be carried out in ways of tree diagrams, bracketing or any other. For example:
  - (1) Poor| John || ran |out.

Poor John ran out

Poor John

ran out

Poor

John

ran

out

# 1.5- Construction (1)

- ❑ A construction is a relationship between constituents. Constructions are divided into two types: **endocentric constructions** and **exocentric constructions**.
- ❑ **Endocentric construction** is one whose distribution is functionally equivalent to that of one or more of its constituents.
- ❑ **Exocentric construction** refers to a group of syntactically related words where none of the words is functionally equivalent to the group as a whole.
- ❑ If the total construction (**head** plus **modification**, or **modification** plus **head**) has the same distributional characteristics as the head constituent (head), it is usually called endocentric construction. For example:
  - *They left because they were tired*

# 1.5- Construction (2)

- ❑ Within this construction, "*They left*" is **the head** and "*because they were tired*" is **its modifier**.
- ❑ Endocentric construction can further be divided into two types: **subordination** and **coordination**.
- ❑ Any construction that does not belong to the same form class as any one of its immediate constituents is an exocentric construction;
- ❑ There is no head in exocentric constructions, and it is not substitutable by any one of its constituents.
- ❑ No immediate constituent may function in a manner equivalent to the whole construction of which it is a part.

# 1.6- Sentence Types

- Sentences in any language are constructed from a rather small set of basic structural patterns and through certain processes involving the expansion or transformation of these basic patterns.
- The pattern of a sentence depends on the number and the class of the complements in that sentence.
- a sentence can have a zero-complement, a single complement, or two complements...

Type	S	V	O	C	A
SV	Someone	was laughing			
SVO	My sister	enjoys	parties		
SVC	They	became		angry	
SVA	I	went			to New
SVOO	Mary gave		John a book		
SVOC	Most people	consider	the book	expensive	
SVOA	You	must put	the toy		downst

# **1.7- Syntactic Function (1)**

- ❑ The traditional approach to syntactic function:
  - identifies constituents of the sentence,
  - states the part of speech each word belongs to,
  - describes the inflection involved, and
  - explains the relationship each word related to the others.
  
- ❑ According to its relation to other constituents, a constituent may serve certain syntactic function in a clause



# 1.7- Syntactic Function (2)

- ❑ There are five functional categories of clause constituents:
  - **subject, verb, object, complement, adverbial**
- ❑ **Object** can be subdivided into **direct object** and **indirect object**;
- ❑ **Complement** can be subdivided into **subject complement** and **object complement**;
- ❑ **Adverbial** can be subdivided into **subject-related adverbial** and **object-related adverbial**.

# 1.8- Tense and Aspect

- ❑ The category of tense has to do with **time-relations** and relates *the time of the action, event or state of affairs* referred to in the sentence to the time of utterance (the time of utterance being 'now').
- ❑ **Tense** is therefore a deictic category, and is simultaneously a property of the sentence and the utterance.
- ❑ The term **aspect** was first used to refer to the distinction of 'perfective' and 'imperfective' in the inflection of verbs in Russian and other Slavonic languages.
- ❑ **English has two aspects:**
  - The '**perfect**' (e.g. I have/had read the book. I will/would have read the book) and the '**imperfect**' (e.g. I am/was reading the book, I will/would be reading the book). They combine freely with one another (e.g. I have/had been reading the book).

# 1.9- Number and Gender

- ❑ **Number** is a grammatical category for the analysis of such contrasts as singular and plural of certain word classes. In English, number is a feature of nouns and verbs.
- ❑ **Gender** demonstrates such contrasts as "masculine, feminine, and neuter", and "animate vs inanimate", etc. for the analysis of certain word classes.
- ❑ In most languages, grammatical gender has little to do with the biological sex.
- ❑ For instance, in French, the moon, which has nothing to do with the biological sex, is grammatically feminine

# 1.10- Case

- ❑ The case category is often used in the analysis of word classes to identify the syntactic relationship between words in a sentence.
- ❑ It is a feature of the noun, largely functionally definable (nominative for mentioning the subject, vocative for exclaiming or calling, accusative for mentioning the object, genitive for ownership, dative for indicating benefit, ablative for direction or agency).

# 1.11- Concord

- ❑ The forms of words can be restricted by grammatical categories through **concord or agreement** and through government.
- ❑ A verb is to agree with the subject in person and number.
- ❑ In English this rule only affects the verb according to the number of the subject.
  - For example,
    - ✓ The boy goes to school.
    - ✓ The boys go to school.

# **II- Syntactic Structures & Syntactic Analysis**

# **2.1- Basic Principles of Syntactic Structure**

## **□ Headedness Principle**

Every syntactic structure is a projection of a head word

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# 2.2- Phrases

## □ NP : Noun Phrase

➤ The car, a clever student

## □ VP : Verb Phrase

➤ study hard, play the guitar

## □ PP : Prepositional Phrase

➤ in the class, above the earth

## □ AP : Adjective Phrase

➤ very tall, quite certain



## **2.3- The Main Structure Rules**

**□ S → NP (Aux) VP**

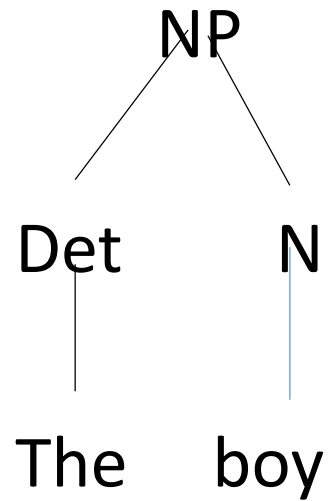
**□ NP → {**  
- (Det) (Adj) N (PP)  
- PN (Proper Name)  
- Pronoun

**□ VP → V (NP) (PP) (Adv)**

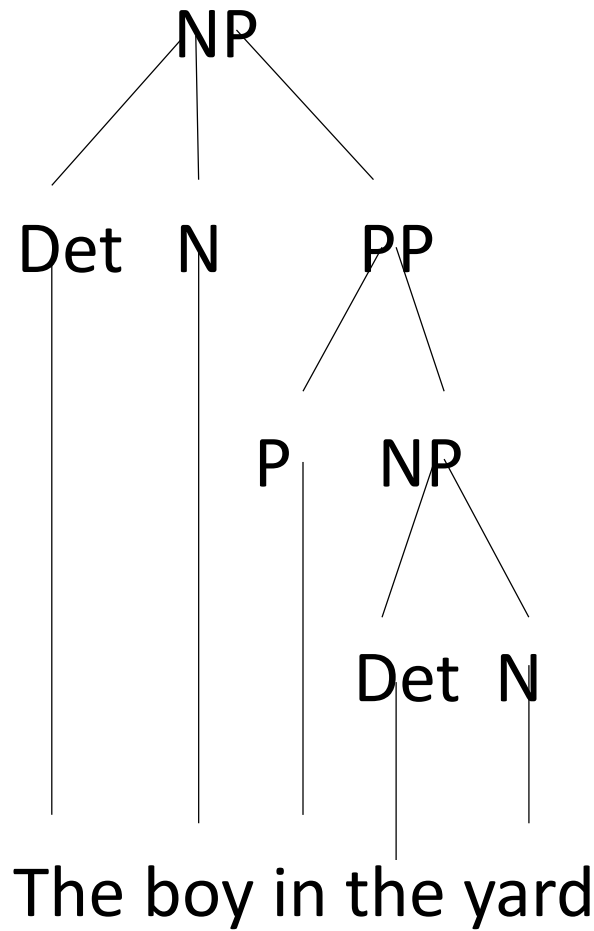
**□ PP → Prep (NP)**

# 2.4-Phrase Structure Rules & Tree Diagrams

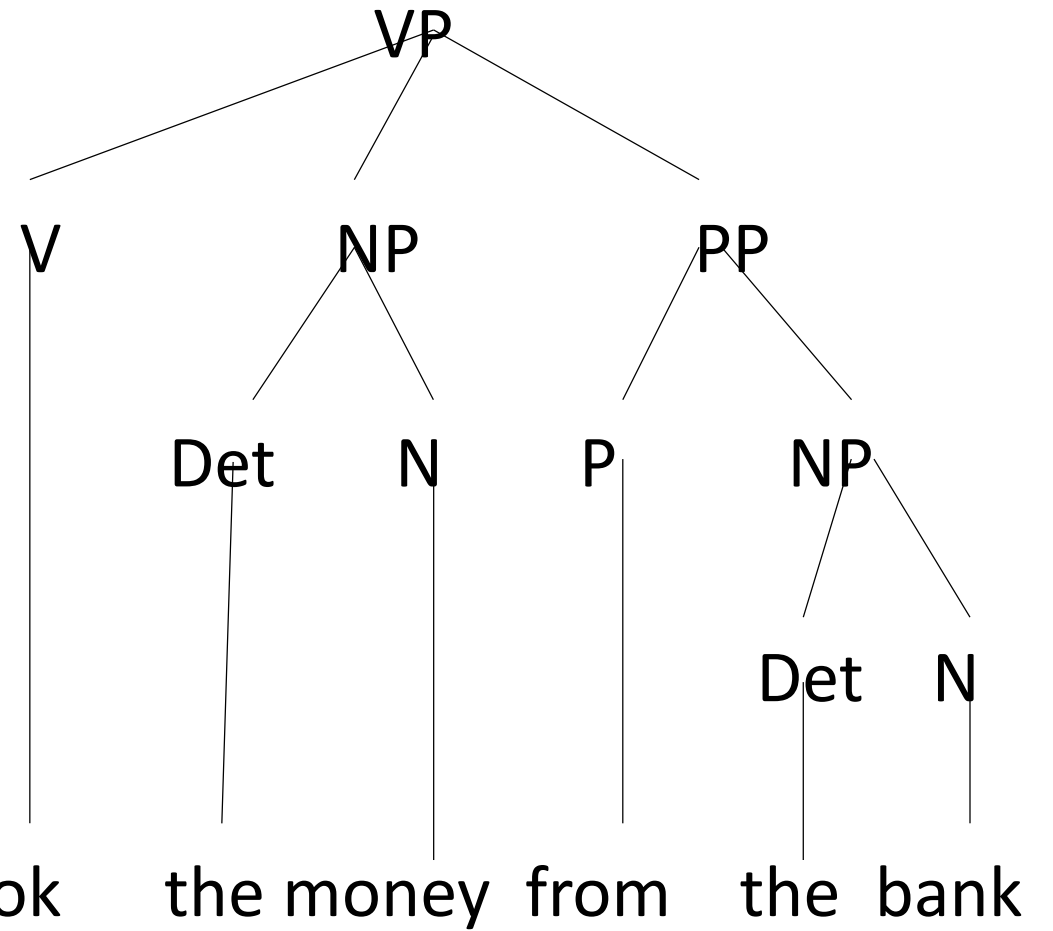
The boy



The boy in the yard



took the money from the bank



# Practice

**1- The bad man will eat the poor cat happily**

# **III- Surface Structures & Underlying Structures**

# 3.1- Heads and Projections (1)

- **The head** (constituent) of a phrase is the key word which determines the properties of the phrase.
- In a phrase such as *fond of fast food*, the head of the phrase is the adjective *fond*, and consequently the phrase is an adjectival phrase (and hence can occupy typical positions associated with adjectival expressions - e.g. as the complement of "is" in 'He is *fond of fast food*')
- **Headed/Headedness Principle:** An expression is **headed** if it has a **head**.

## 3.1- Heads and Projections (2)

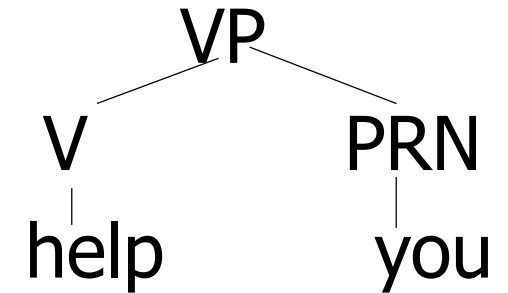
- ❑ The **Headedness Principle** specifies that every constituent must be headed (i.e. must have a head).
- ❑ So, for example, an expression like "*fond of fast food*" is headed by the adjective "*fond*" and so is an adjectival phrase
- ❑ **Head Position Parameter:** The parameter which determines whether a language positions heads before or after their complements. (**Head-first** vs **head-last** languages)

# 3.1- Heads and Projections (3)

□ We are trying to *help you*

□ [VP[vhelp] [PRNYOU]]

□ The verb '*help*' is the **head** of the overall phrase.



□ The VP '*help you*' is a **projection** of the verb '*help*'.

□ In the sense that the verb '*help*' is projected into a larger structure by merging it with another constituent of an appropriate kind

□ In this case, the constituent which is merged with the verb '*help*' is the pronoun '*you*', which has the grammatical function of being the **(direct object) complement** of the verb '*help*'.

## 3.2- Head and Complement (1)

- A **complement** is an expression which is directly **merged** with (and hence is the **sister** of) **a head word**, thereby projecting the head into a larger structure of essentially the same kind.
- In '**Close the door**', '*the door*' is the complement of the verb '*close*'; in '*After dinner*', *dinner* is the complement of the preposition '*after*'; in '**good at physics**', '*at physics*' is the complement of the adjective '*good*'; in '**loss of face**', '*of face*' is the complement of the noun '*loss*'.



## 3.2- Head and Complement (2)

### ❑ **EXAMPLE**

❖ **SPEAKER A: What was your intention?**

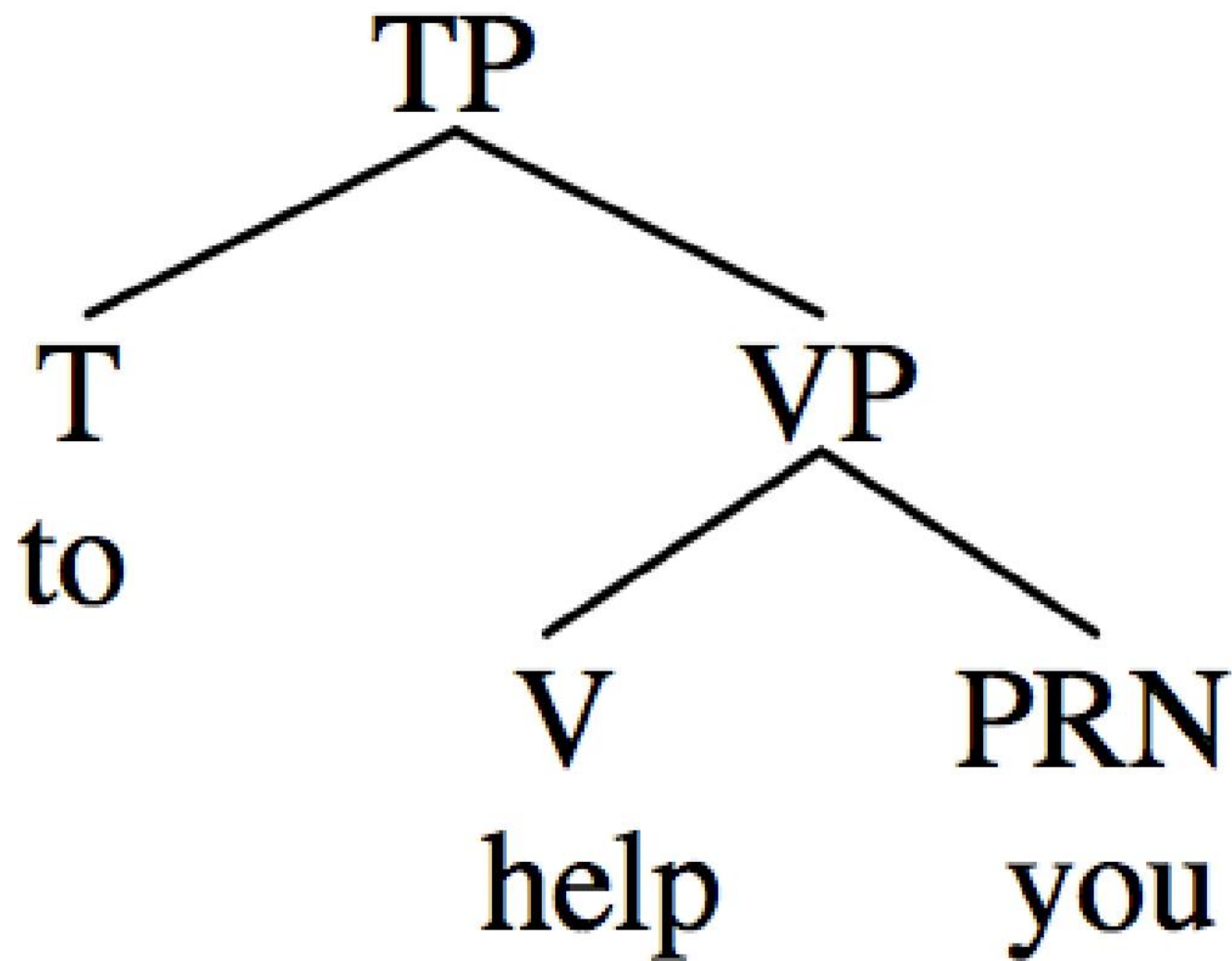
❖ **SPEAKER B: *To help you.***

❑ '*to help you*' is an **infinitival TP** (= infinitival tense projection = infinitival tense phrase).

❑ The **head** of the resulting infinitival tense projection '*to help you*' is the infinitive particle '*to*', and the verb phrase '*help you*' is the **complement** of '*to*'; conversely, '*to help you*' is a **projection** of '*to*'.

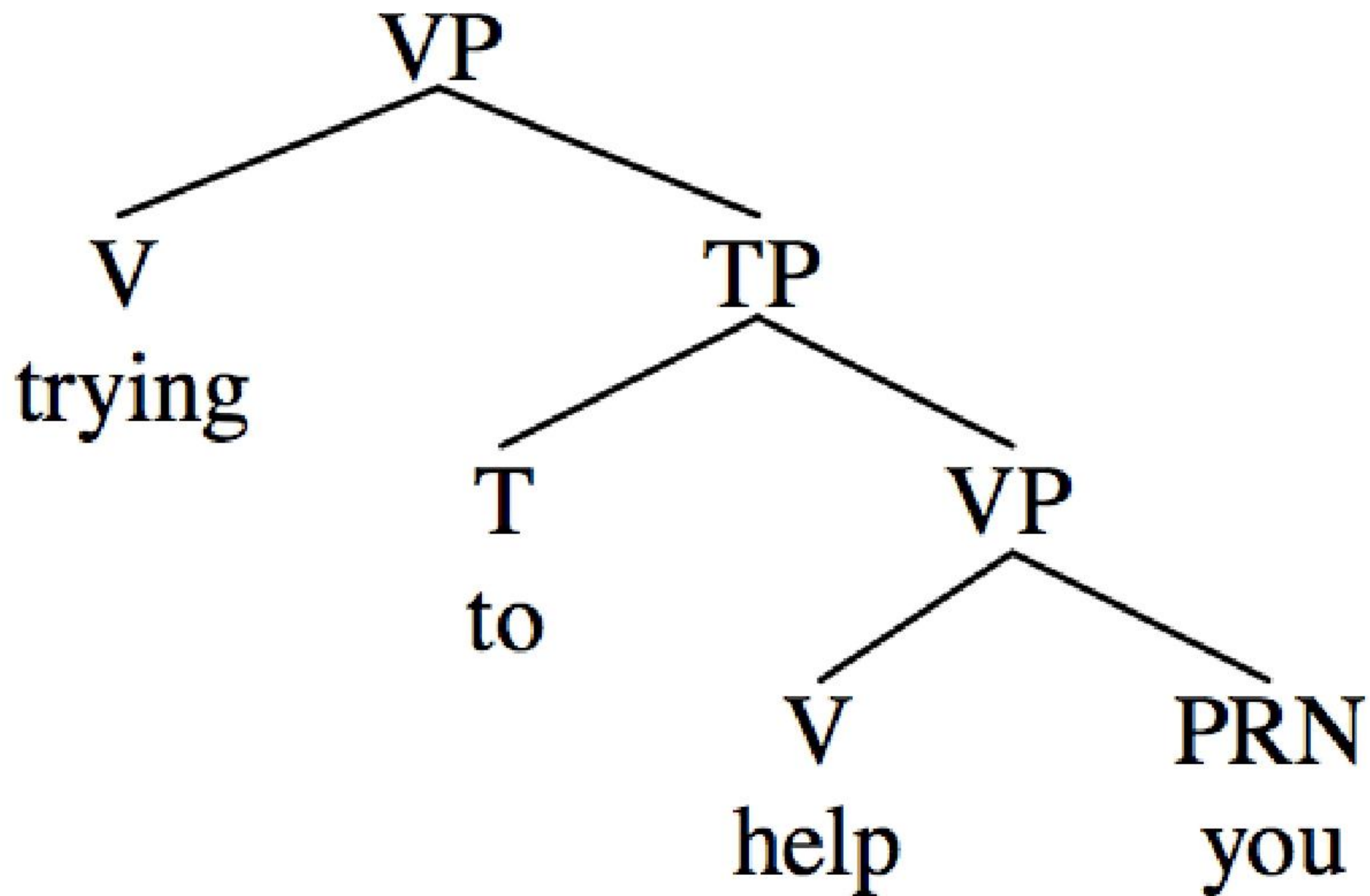
## 3.2- Head and Complement (3)

- ❑ **Head movement:** Movement of a word from one head position to another
- ❑ **Head Movement Constraint/HMC:** A principle of **Universal Grammar** which specifies that movement between one head position and another is only possible between the head of a given structure and the head of its complement.



## 3.2- Head and Complement (4)

- ❑ The overall expression '*trying to help you*' is a **verb phrase/VP**;
- ❑ Its **head** is the *verb/V trying*, and the **complement** of '*trying*' is the TP/infinitival tense phrase *to help you*.
- ❑ The VP '*trying to help you*' is a **projection** of the *V 'trying'*.
- ❑ An interesting property of syntactic structures is that of **recursion** – that is, the property of allowing a given structure to contain more than one instance of a given category (in this case, more than one verb phrase/VP – one headed by the verb '*help*' and the other headed by the verb '*trying*').



## 3.2- Head and Complement (5)

❖ SPEAKER A: What are you doing?

❖ SPEAKER B: We are trying to help you

□ When we merge a tense auxiliary (= T) with a verb phrase (= VP), we form an **intermediate projection** which we shall here denote as T' (pronounced 'tee-bar'); and that only when we merge the relevant T-bar constituent with a subject like *we* do we form a **maximal projection** – or, more informally a 'complete TP'

## 3.2- Head and Complement (6)

- A tense auxiliary like *are* has two projections: a smaller **intermediate projection** (T') formed by merging *are* with its complement *trying to help you* to form the T-bar (intermediate tense projection) *are trying to help you*; and a larger **maximal projection** (TP) formed by merging the resulting T' *are trying to help you* with its subject *we* to form the TP *We are trying to help you*.
- Saying that TP is the **maximal projection** of *are* means it is the largest constituent headed by the auxiliary *are*.

## 3.2- Head and Complement (7)

❖ **SPEAKER A: What are you saying?**

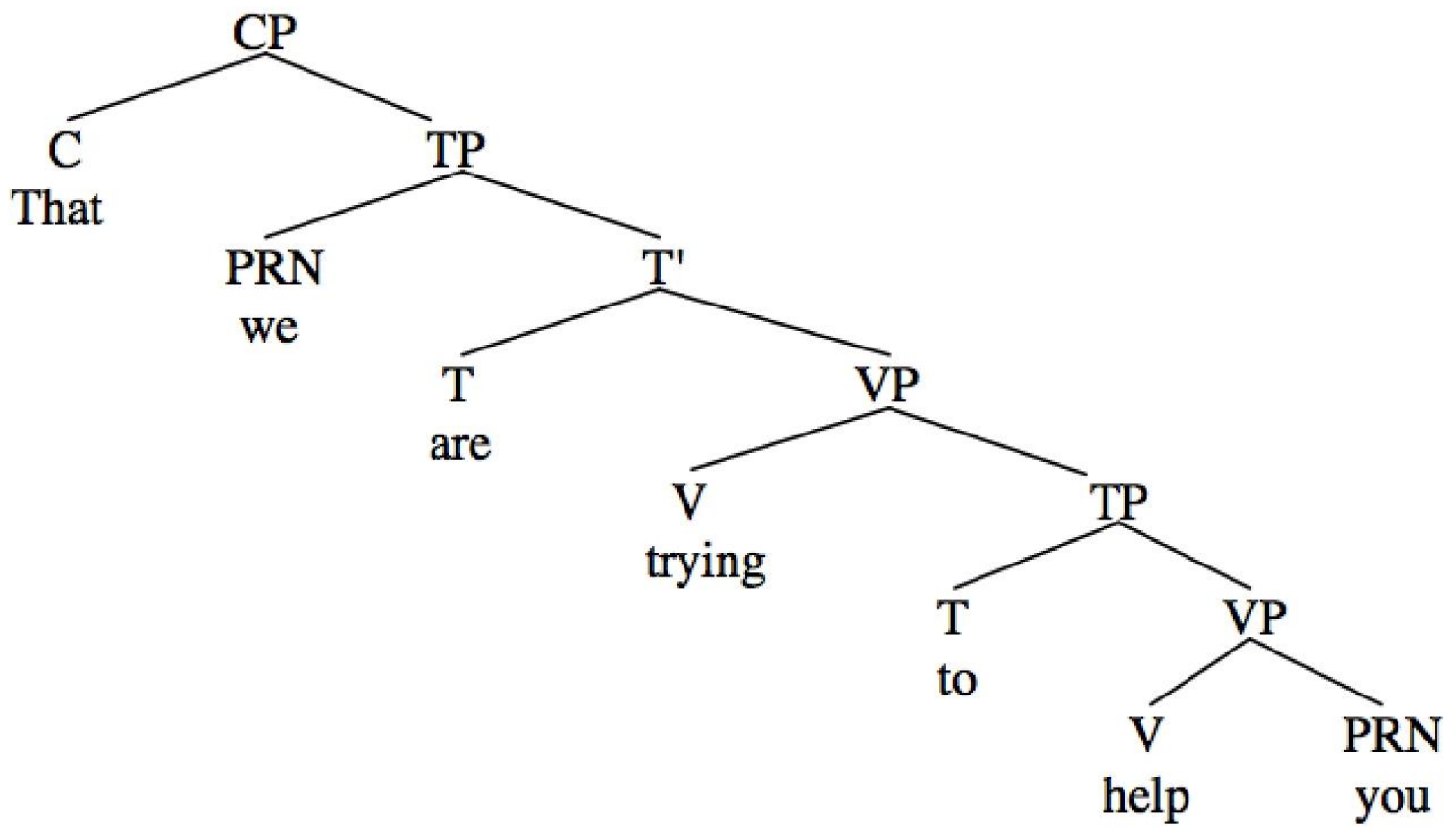
❖ **SPEAKER B: That we are trying to help you**

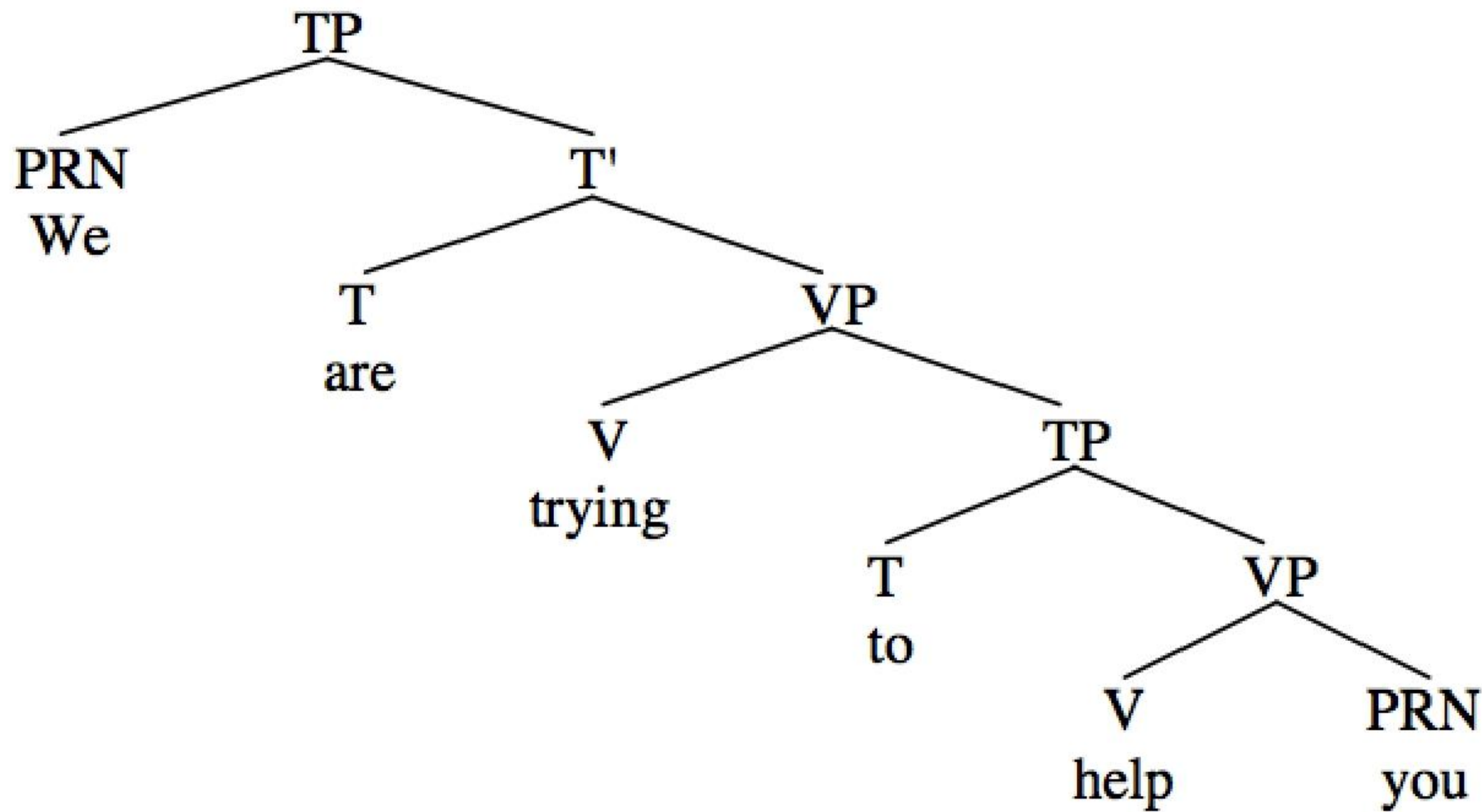
□ The complementiser '*that*' merges with the TP '*we are trying to help you*' to form the **CP/complementiser projection/ complementiser phrase**

□ **That is the Extended Projection Principle/EPP**

□ A finite tense constituent T must be extended into a TP projection containing a subject







# Practice

□ Give the labelled tree-diagrams

- The old tree swayed in the wind
- The children put the toy in the box
- The small boy saw Jack with a crazy dog recently

## 3.3- Structural Ambiguity

- How superficially similar sentences are different?  
*(multiple meanings)*
  - **Annie whacked the man with an umbrella**
  
- *Same surface structure but different deep structure*
  - **The boy saw the man with a telescope**
  - ✓ **The question is:** What is the scope of "with the telescope"? Does it modify only *"the man"* or does it modify *"saw the man"*?

# 3.4- Complement Phrases

□ Cathy knew *that* Mary helped George

➤ That = complementizer (C) introducing **complement phrase** (CP)

✓ The CP comes after the VP

❖ S = NP VP

❖ VP = V CP

❖ CP = C S (Sentence)

➤ e.g. John believed that Cathy knew that Mary helped George

## 3.5-Transformational Rules (Movement)

□ Phrase structure rules: represent 'deep' structure-always generate structures with fixed word order.

➤ *Mary saw George recently*

➤ *Recently Mary saw George*

□ Transformational rules= *take a specific part and attach it in another place*

➤ *You will help Cathy*

➤ *Will you help Cathy?*

# Exercises (1)

□ Rewrite the following sentences with Phrase Structure Rules.

➤ *Hint: Locate your principal NP and VP before beginning*

a) Miriam swims.

b) The dog is barking.

c) Peter told the truth.

d) The wicked witch spilled the potion.

e) The students with the best marks won the prize.

## Exercises (2)

□ Draw a labelled tree diagram for the following English phrases.

➤ *(Hint: what part of speech is the leader for the phrase?)*

- a) ancient pyramids
- b) in the early evening
- c) Drove a car



# Exercises (3)

□ Draw phrase structure trees for the following sentences:

- a) The puppy found the child.
- b) The ice melted.
- c) The hot sun melted the ice.
- d) The house on the hill collapsed in the wind.
- e) The boat sailed up the river.
- f) A girl laughed at the monkey.

# Exercises (4)

□ Draw two phrase structure trees representing the two meanings of the sentence:

**The magician touched the child with the wand.**

□ In what way these sentences are ambiguous?

a) We met an English history teacher

b) Flying planes can be dangerous

c) The parents of the bride and the groom were waiting outside

d) The students complained to everyone that they couldn't understand

# **IV- NEW ORIENTATIONS**

## **4.1- The Principles & Parameters Theory (1)**

- ❑ **Principles-and-Parameters Theory/PPT** (developed by Chomsky at the beginning of the 1980s and articulated in Chomsky 1981)
  
- ❑ The Innate Language Faculty incorporates:
  - (i) a set of universal grammatical principles, and
  - (ii) a set of grammatical parameters which impose severe constraints on the range of grammatical variation permitted in natural languages (perhaps limiting variation to binary choices).

## 4.1- The Principles & Parameters Theory (2)

- ❑ Since universal principles don't have to be learned, the child's syntactic learning task is limited to that of **parameter-setting** (i.e. determining an appropriate setting for each of the relevant grammatical parameters)
- ❑ The Principles and Parameters (P&P) approach to syntax seeks to describe **principles** that appear to be **invariant** across languages -- and which are hence, by hypothesis, innate (**Chomsky 1981; 1995**) --
- ❑ and to characterize in a precise manner the **parameters** of possible **variation** among languages (**Baker 2002**).

## **4.1- The Principles & Parameters Theory (3)**

- ❑ PPT hypothesizes that grammatical properties which are universal will not have to be learned by the child, since they are wired into the language faculty and hence part of the child's genetic endowment
- ❑ On the contrary, all the child has to learn are those grammatical properties which are subject to parametric variation across languages.

## 4.1- The Principles & Parameters Theory (4)

□ A child unresponsive to correction:

❖ CHILD: Nobody don't like me

❖ ADULT: No, say: 'Nobody likes me'

❖ CHILD: Nobody don't like me

*(8 repetitions of this dialogue)*

❖ ADULT: No, now listen carefully. Say 'Nobody likes me'

❖ CHILD: Oh, nobody don't likes me

## 4.2- Parametric Variation

- **Parameters** are dimensions or aspects of grammar which are subject to language-particular variation (and hence vary from one language to another).
- In other words, grammatical learning will be limited to parametrized aspects of grammar (i.e. those aspects of grammar which are subject to parametric variation from one language to another).
- E.g: **null subject language** (Italian, Spanish) vs. **non-null subject language** (English).



## 4.3- Contrastivity

- **Contrastive analysis** is based on the assumption that
  - ❖ every language has its own unique personality;
  - ❖ and that the job of a linguist is to identify those features which make any two languages different from each other;
  - ❖ TG Grammar seeks to identify the similarities underlying the apparently different languages;
  - ❖ whereas contrastive analysis seeks to identify all those aspects of a language which make it unique;

## 4.3- Morphosyntax

□ It is the **morphology & syntax** interface

- A language has the syntax of its morphology
- Syntax and morphology are intricately linked
- Syntactic positions and functions are based on the morphological peculiarities of units
- **Morphology** deals with the internal structuring of word-forms;
- **Syntax** deals with the distribution of word-forms throughout the well-formed sentences of a language.

**THE END**