

## Lecture 14

### In this class, we will cover the following points:

- 1- Immediate constituent structure
- 2- tree diagram

### Immediate constituent analysis

#### Immediate constituent analysis:

- One type of descriptive approach is called 'immediate constituent analysis'.
- The technique employed in this approach is designed to show how small constituents (or components) in sentences go together to form larger constituents.

احد انواع المنهج الوصفي يطلق عليه مسمى "تحليل العنصر الاساسي الفوري"

تم تصميم هذه التقنية المستخدمة في هذا النهج لإظهار كيفية ربط العناصر "المكونات" الصغيرة مع بعض في الجمل لتشكيل عناصر اكبر.

- Example: in the following sentence, we can identify eight constituents (at the word level):

على سبيل المثال: في الجملة التالية ، يمكننا تحديد ثمانية عناصر "مكونات" ( على مستوى الكلمة)

*her sister bought a car in the summer*

How do those eight constituents go together to form constituents (at the phrase level)?

The phrase-like constituents here are combinations of the following types:

Her sister, a car, the summer (which are all Noun Phrases);

to the summer (which is a Prepositional Phrase);

bought a car (which is a Verb Phrase).

- This analysis of the constituent structure of the sentence can be represented in different types of diagrams; e.g. the tree diagram.

كيف ترتبط هذه المكونات الثمانية لتشكيل مكونات على مستوى العبارة.

العبارة مثل العناصر الرئيسية "المكونات" هي مزيج من الانواع التالية:

Her sister, a car, the summer وهي كلها جمل اسمية Noun Phrases

to the summer وهي كلها جمل حروف الجر Prepositional Phrase

bought a car وهي جمل فعلية Verb Phrase

هذا التحليل لتركيب العناصر الاساسية " المكونات" للجمل يكن تمثيله في انواع مختلفة من الرسوم البيانية .

## Labeled tree diagram

- A list of symbols and abbreviation used in syntactic description:

قائمة الرموز والاختصارات المستخدمة في الوصف النحوي:

**S** (sentence)

**N** (noun) computer, city, stupidity, event

**PN** (proper noun) John, London, Egypt

**V** (verb) hear, think, kill, shorten, exist

**Adj** (adjective) good, obscene, demented, lovely

**Prep** (preposition) by, in, with, from, to, at, inside, near

**Adv** (adverb) slowly, often, now, yesterday, recently

**Art** (article) the, a, an

**Pro** (pronoun) he, it, they

**NP** (noun phrase)

**VP** (verb phrase) etc.

**PP** (prepositional phrase)

**Asterisk \*** = ungrammatical

→ = consist of

( ) = optional constituent

{ } = one and only one of these constituents must be selected

### Phrase structure rules:

**Phrase structure rules:** state that the structure of a phrase of a specific type will consist of one or more constituents in a particular order.

قواعد تركيب العبارة: حالة تركيب العبارة من نوع معين سوف تتضمن نوع واحد أو أكثر من المكونات في ترتيب معين.

**Example:** Consider these Phrase structure rules:

NP → Art N                      EX: the boy

NP → Art (Adj) N              EX: the tall boy

NP → Pro                        EX: he

NP → PN                        EX: John

- We can write these four single rules in one rule as follows:

NP → {Art (Adj) N, Pro, or PN}

- Remember that the curly bracket means 'only one constituent can be selected'; whereas the round bracket means 'optional constituents'

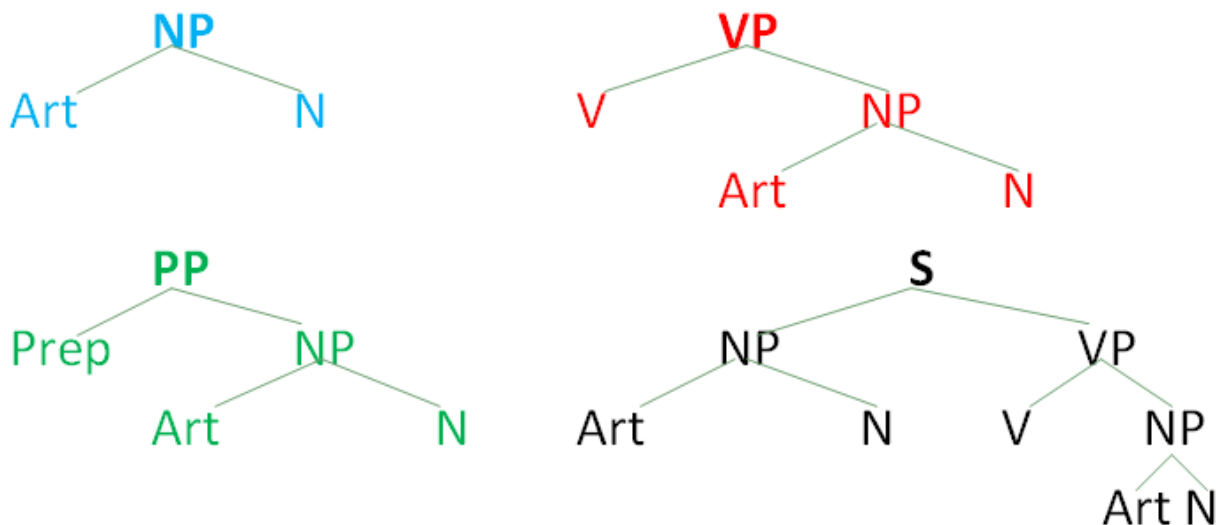
تذكر ان القوس المحني { } يعني " يمكن اختيار عنصر اساسي مكون- واحد فقط" بينما القوس المستدير ( ) يعني " مكونات اختيارية"

### A list of Phrase structure rules: :

- $VP \rightarrow V \ NP \ (PP) \ (Adv)$
- $NP \rightarrow \{Art \ (Adj) \ N, \ Pro, \ or \ PN\}$
- $PP \rightarrow Prep \ NP$
- $S \rightarrow NP \ VP$

## Tree diagram

We can represent the previous rules using tree diagrams:



Let us apply the tree diagram to sentences and phrases:

- Draw a tree diagram for the following sentences and phrases:

1- A girl

5- In the Kitchen

2- The car

6- met Ahmed

3- An egg

7- She bought a new car

4- The wonderful trip

8- Martina helped John yesterday

### Steps to draw a correct tree for sentences and phrases:

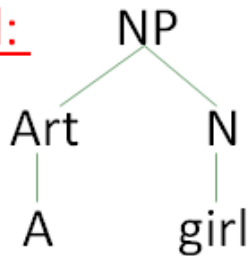
- 1- first, decide whether what you have is a sentence or a phrase.
- 2- If it is a sentence, write a big S in the middle and draw lines from it downward to formulate the tree.
- 3- If it is a phrase, you should decide the type of phrase (NP, or VP, or PP) and write it in the middle and start drawing lines from it downward to create the tree.

خطوات لرسم بياني صحيح للجمل والعبارات: "شجرة بيانية"

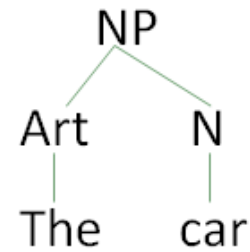
- 1- أولا ، يجب ان تتعرف وتقرر ما اذا كان لديك هي جملة أو عبارة.
- 2- اذا كانت جملة، اكتب بخط كبير حرف S في الوسط ثم ارسم خطوط باتجاه الاسفل لصياغة وتشكيل الشجرة البيانية.
- 3- اما اذا كانت عبارة، يجب ان تقرر نوع العبارة (NP, or VP, or PP) وبعد ذلك تكتب نوع العبارة في الوسط وتبدأ برسم خطوط باتجاه الاسفل لإنشاء شجرة بيانية.

- Let us apply this to the previous sentences and phrases

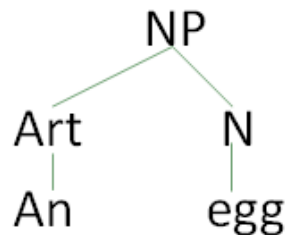
### 1- A girl:



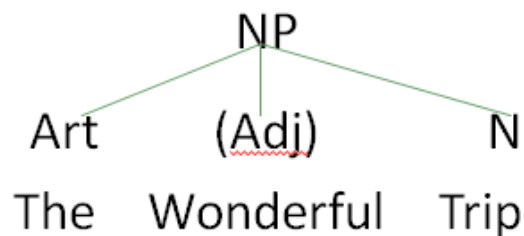
### 2- The car:



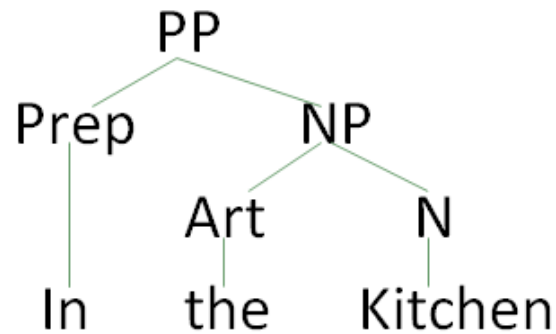
### 3- An egg:



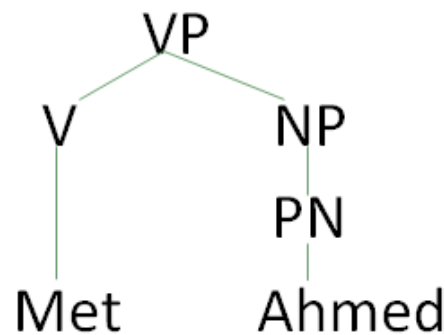
### 4- The wonderful trip:



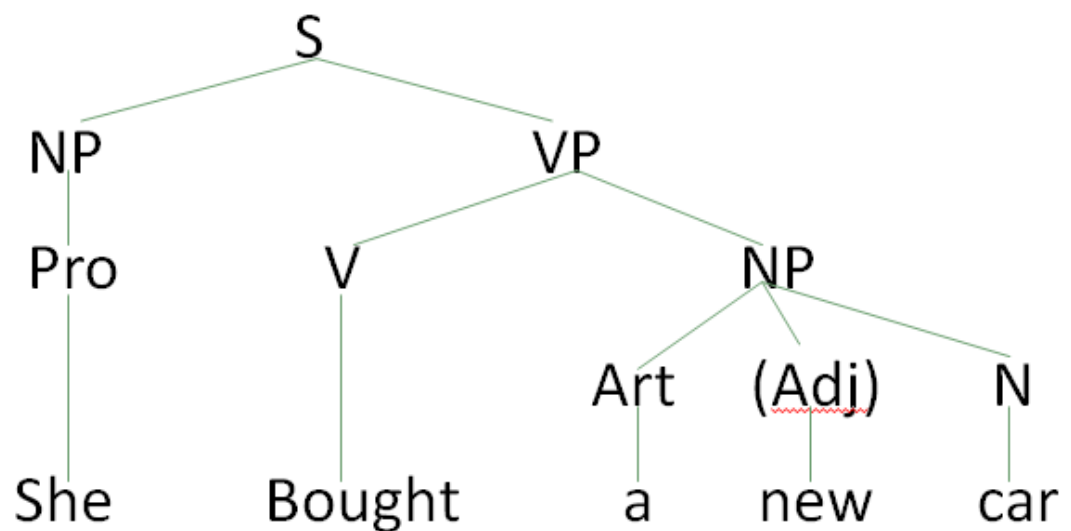
## 5- In the Kitchen



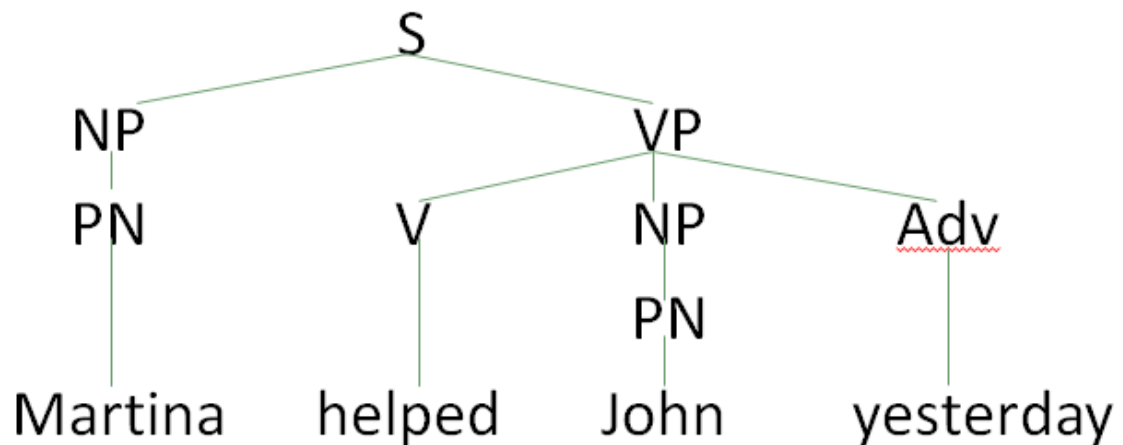
## 6- Met Ahmed



## 7- She bought a new car



## 8- Martina helped John yesterday



### More exercises on tree diagram

- Draw a tree diagram for the following sentences and phrases:

- The guy met the researcher.
- The smart guy met the researcher.
- The smart guy met the famous researcher.
- The old man saw the cat with Sam recently.
- A big dog followed George
- I met the teacher in the café.
- They saw an elephant in the zoo.
- England is a big country.