



كلية : الاداب

القسم او الفرع : اللغة الانجليزية

المرحلة: الرابعة

الفصل الدراسي: الثاني

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اسم المادة باللغة العربية : النحو

اسم المادة باللغة الانجليزية : **Transformational**
Generative Grammar

A transformation may involve any of four processes: addition, deletion, rearrangement, or substitution. 1. By addition we place something in the tree that was not in the deep structure; thus, we may add *do to (he past not disappear)* to give: *he past do not disappear*. Since the deep structure must contain the full meaning of the sentence, only words which are relatively empty in meaning, such as *do*, may be added transformationally.

2. By deletion we remove something from the structure. We have not yet encountered deletion, but you can readily see how it operates on the following structure: *Bill couldn't hear you, but I could hear you. Bill couldn't hear you, but I could*. In the second sentence the MV underlying *hear you* has been deleted, since it is repetitious. Only elements that cause no loss in meaning may be deleted.

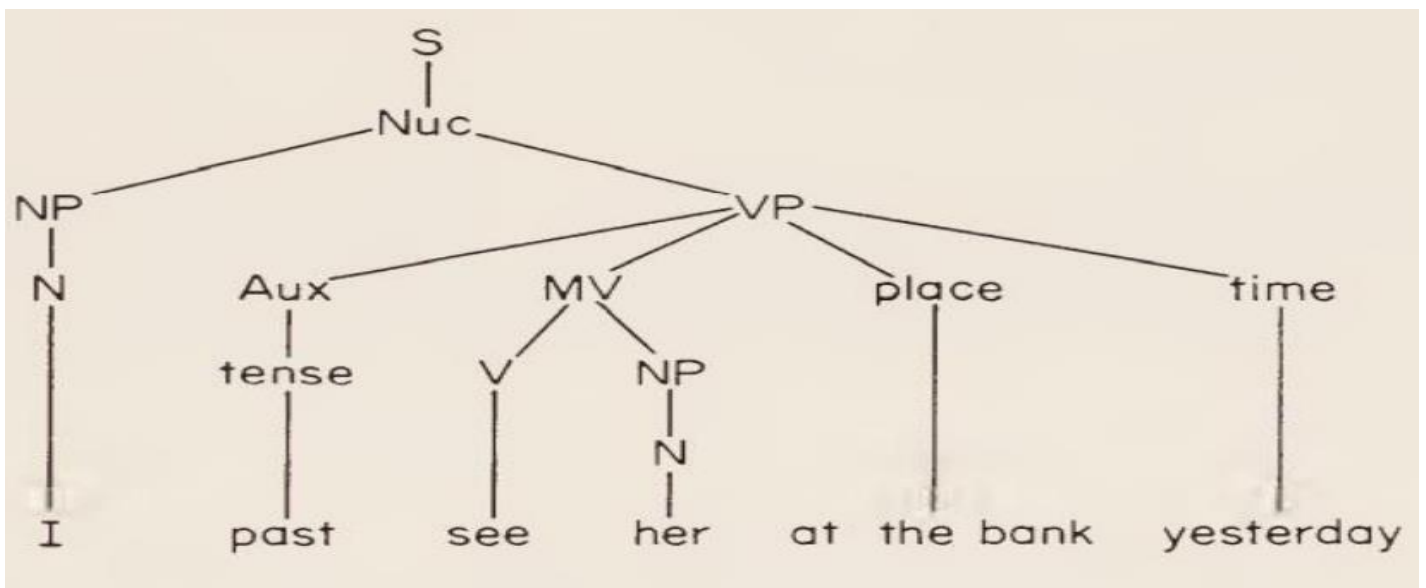
3. Rearrangement changes the ordering of the structure. We have seen this process in the negative, yes/no, and WH transformations. As with the other transformations, rearrangement produces a change in structure and is not just a shifting of words.

4. Substitution involves replacing an element of the deep structure with another element, as the substitution of *where* for *Adv-p-WH*. The WH transformation involves a combination of rearrangement and substitution. In this chapter we will examine several transformations that illustrate these four processes.

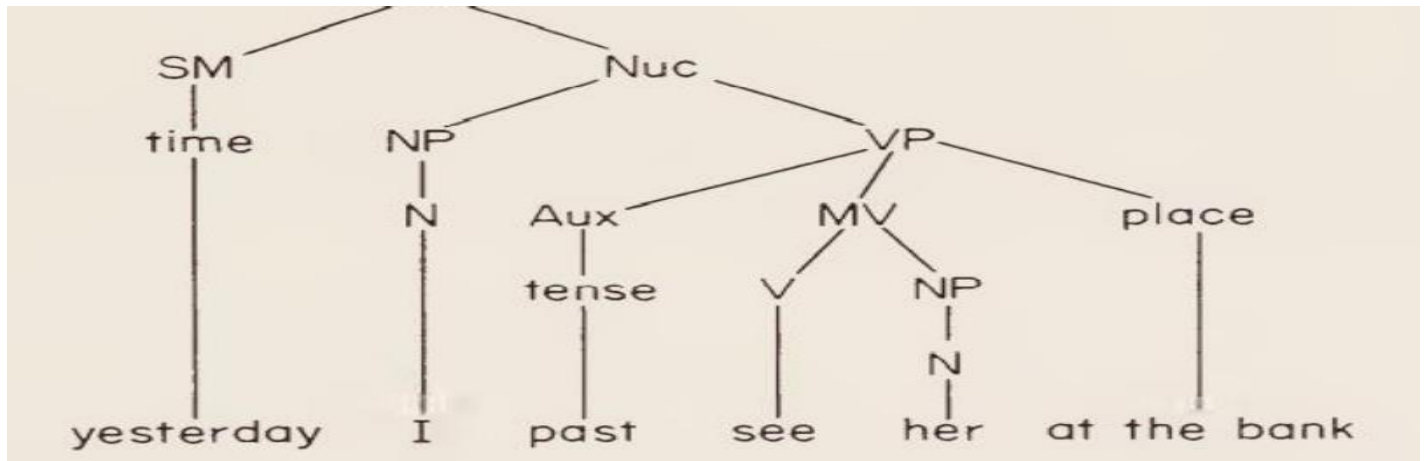
ADVERBIAL MOVEMENT

Our phrase-structure rules introduce all adverbials after the MV, as in sentence 1.
1. I saw her at the bank yesterday. The following is also a grammatical sentence of English: 2. Yesterday I saw her at the bank.
Since these sentences mean the same thing, we would like to account for this in our grammar. The structure underlying **I saw her at the bank yesterday** is as follows:

I saw her at the bank yesterday



It will be possible to derive **Yesterday I saw her at the bank** from this same deep structure if we **rearrange** the elements.



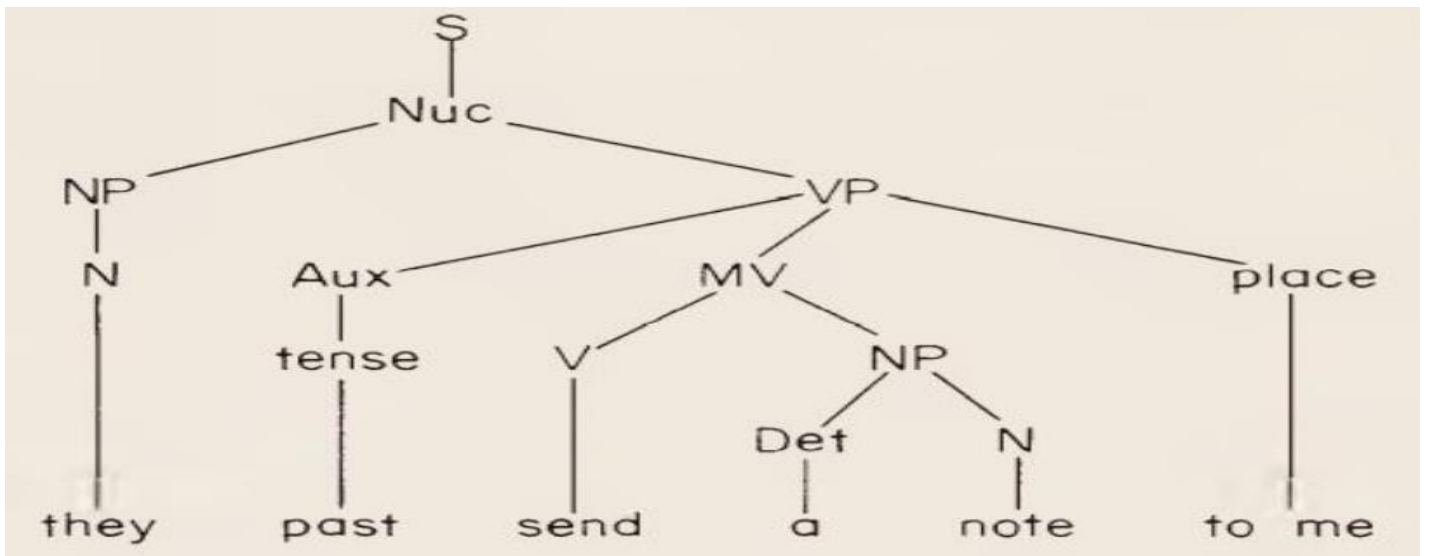
Most adverbials of manner do not shift except for emphasis: ***Carefully he checked the papers**. The adverbial-movement transformation, like the negative and yes/no, rearranges the structure underlying a sentence.

INDIRECT OBJECTS

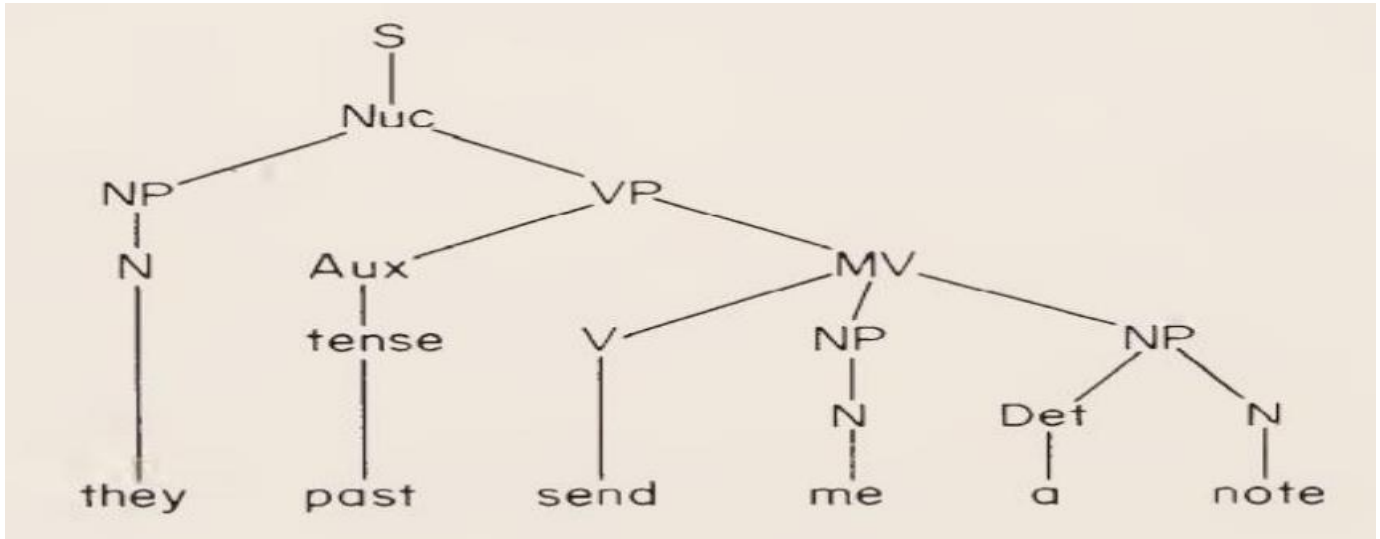
Now let us turn to another group of sentences which **share meaning**:

- 1a. They sent a note to me.
- b. They sent me a note.
- 2a. Mary has mailed a letter to her friend.
- b. Mary has mailed her friend a letter.
- 3a. She cooked a meal for me.
- b. She cooked me a meal.

Our phrase-structure rules will account for 1a, 2a, and 3a, but not for **1b**, **2b**, and **3b**, in which the words **me** (1b), **her friend** (2b), and **me** (3b) are said to function as **indirect objects**. Since sentences 1a and 1b mean the same thing, we would like to derive them from the same deep structure.



This is the deep structure for **They sent a note to me**. If we rearrange the structure, we can derive sentence lb:



This transformation rearranges; it also deletes the preposition to.

In our other rules we included an element to trigger the transformation: **not**, **WH**, **Q**. These transformations are different from the **indirect object transformation**. In the others, the transformed sentence has a different meaning from the related untransformed sentence without **not**, **Q**, etc. (**She was going to town**), a sentence without the optional SM **not**, does not mean the same thing as (**She was not going to town**), in which **not** has been selected. But look at the sentences involving indirect objects. (**They sent a note to me**) and (**They sent me a note**) are exact paraphrases of each other. The indirect object transformation is **optional**; there is, therefore, **no marker** in the deep structure to indicate that it must be performed. We might state our rule as follows:

$$X + V + NP^1 + \left\{ \begin{array}{c} \text{to} \\ \text{for} \end{array} \right\} + NP^2 \Rightarrow X + V + NP^2 + NP^1$$

The NPs are numbered so that we can distinguish them. We may illustrate the sentence *She cooked a meal for me* as follows:

X	V	NP^1	for	NP^2	\Rightarrow	X	V	NP^2	NP^1
she past	cook	a meal	for	me	\Rightarrow	she past	cook	me	a meal

This rule will account for (*They sent me a note*) and the other sentences we have given, but it will also permit the following:

1. *They sent me it.
2. *Mary has mailed her friend it.
3. *The driver must have given John it. From these sentences we see that in the deep structure the first NP following the verb must contain a common noun, but the NP after the preposition may contain any kind of nominal. Hence, the structure of (*They sent the book to me*) fulfills this requirement since *book* is a common noun. (*They sent it to me*) does not since it is not a common noun. We are speaking only of *American English*, since there are slight differences found in *British usage*. We should now revise the rule:

$$X + V + (\text{Det}) \left[\begin{array}{c} + N \\ + \text{common} \end{array} \right] + \left\{ \begin{array}{c} \text{to} \\ \text{for} \end{array} \right\} + NP \Rightarrow$$

$$X + V + NP + (\text{Det}) \left[\begin{array}{c} + N \\ + \text{common} \end{array} \right]$$

This rule is optional. Whether we apply it or not depends upon stylistic preferences. It will transform (*We shipped the fruit to Tom*) to (*We shipped Tom the fruit*) and (*We made a bird house for Sam*) to (*We made Sam a bird house*). In American English it will not apply to (*They gave it to me*) or (*We threw it to John*)

Imperative

An imperative sentence such as **Close the door** or **Be good** has obviously undergone a transformation, since there is no noun phrase before the verb. This NP must have been **deleted**. Traditional grammarians said that these sentences are derived from **You close the door** and **You be good**. At first glance, **You close the door** appears to pose no problem, but the string **you -tense + be + good** yields **You are good** or **You were good**, not **You be good**. If we inquire about tense in **You close the door**, we see that this cannot be turned into past tense and retain the same meaning. The traditional explanation is not valid.

We may gain insight into what **deep structures** underlie **Close the door** and **Be good** by examining tag questions like the following:

1. He was ready, **wasn't he** ?
2. They had been sleeping, **hadn't they**?
3. You can ski, **can't you**?
4. She had finished the book, **hadn't she**?
5. You will go, **won't you**?

The first part of these sentences before the comma is generated by the phrase-structure rules that we have already outlined. Following the comma is a repetition of tense, Aux1, and noun phrase.

We could write a rule for this kind of tag question:

$$\text{NP} + \text{tense} + \text{Aux}^1 + X \Rightarrow \text{NP} + \text{tense} + \text{Aux}^1 + X + \text{tense} + \text{Aux}^1 + \text{not} + \text{NP}$$

Notice that the tense remains the same, that the first occurring auxiliary is repeated, and that there is no change in the noun phrase: **He was going, wasn't he?** but not ***He was going, isn't she?** Now let us see what tag questions are necessary for imperatives:

1. Close the door, **won't you?**
2. Be good, **won't you?**
3. Answer my question, **won't you?**

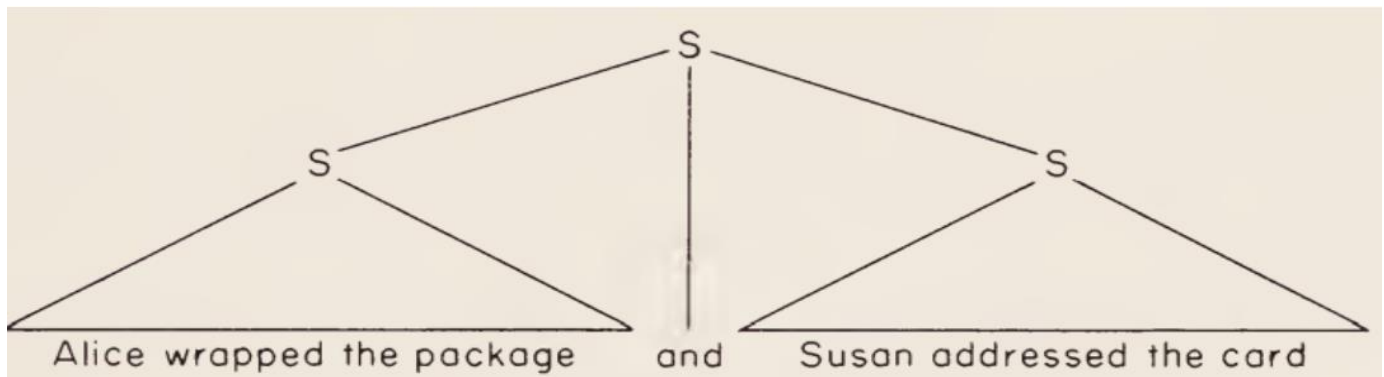
These examples show that in the deep structure the **noun phrase** is you, the tense is **present**, and the first auxiliary is **will**. These three sentences must go back to structures similar to You will close the door, **You will be good**, and **You will answer my question**. These structures have no morpheme in them that requires a transformation; we, therefore, add the **sentence modifier** Imp (imperative). We now can generate a deep structure like this: **Imp you present will go home**. Notice that this differs from the deep structure of **you will go home** by the inclusion of **Imp**, which means that the sentence is an imperative. Here is the rule for the imperative transformation.

$$\text{Imp (not)} + \text{you} + \text{present} + \text{will} + X \Rightarrow (\text{not}) X$$

This rule is an example of the process of deletion. Notice that it is much more restrictive than the others we have encountered. In the other trans \rightarrow formations we were able to use NP, since they apply for all kinds of noun phrases in the same way. The imperative transformation, on the other hand, applies only to sentences containing you as the first noun phrase. One principle of our grammar is that the listener must always be able to understand unambiguously which words are deleted. If just any NP were deleted, he would not be able to do this; but if there is a rule saying that you in imperatives may be deleted, both speaker and listener have no problem deciding what has been left out. Similarly, we must specify present tense, not just tense, since sentences with past tense cannot undergo this trans \rightarrow formation. Finally, the first auxiliary must be will, not just any modal. When you hear someone say Open the door or Be on time, you are able to recover the deleted information unambiguously. Deleted information is always understood by both speaker and listener.

COMPOUNDING, DELETION, AND PRO FORMS

So far we have discussed sentences that derive from only one S. It is possible to join two sentences with a **co-ordinating conjunction** (**and, or, nor, but, yet, for**) to produce a **compound sentence**: Alice wrapped the package, and Susan addressed the card.



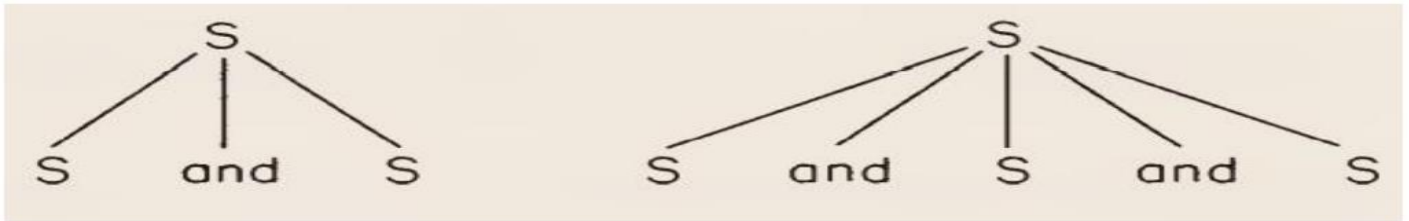
Two sentences joined by a **conjunction** may have **deletion** of identical elements, whereas those without a conjunction may not. 1. We went to the exhibition, but (**we**) did not stay long. (Deletion of the second we is possible.) 2. We went to the exhibition; however, we did not stay long. (No deletion is possible.)

Thus, in compounding, S may be rewritten as two or more Ss. More than two sentences are given in the following example: Alice wrapped the package, **and** Susan addressed the cards, **and** Beth bought the stamps, **and** Frances mailed the package. .

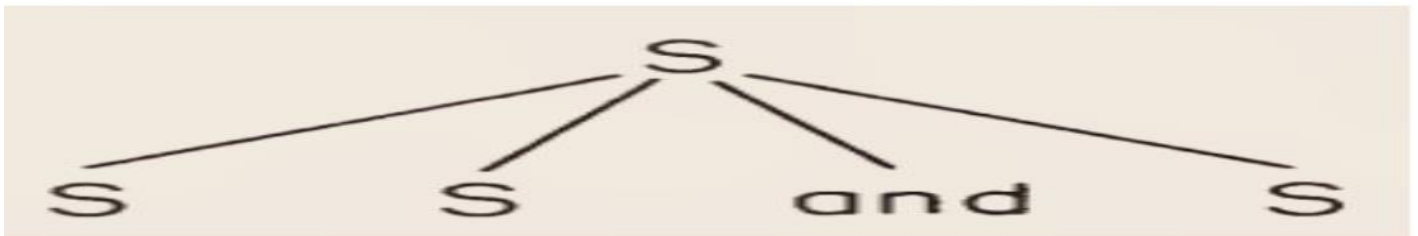
Our revised rule for S will permit trees such as the following:



A rule will add a conjunction, such as and, before each S except the first one:



If there are **three** or more **Ss**, a further rule will optionally **delete all conjunctions** except the last one:



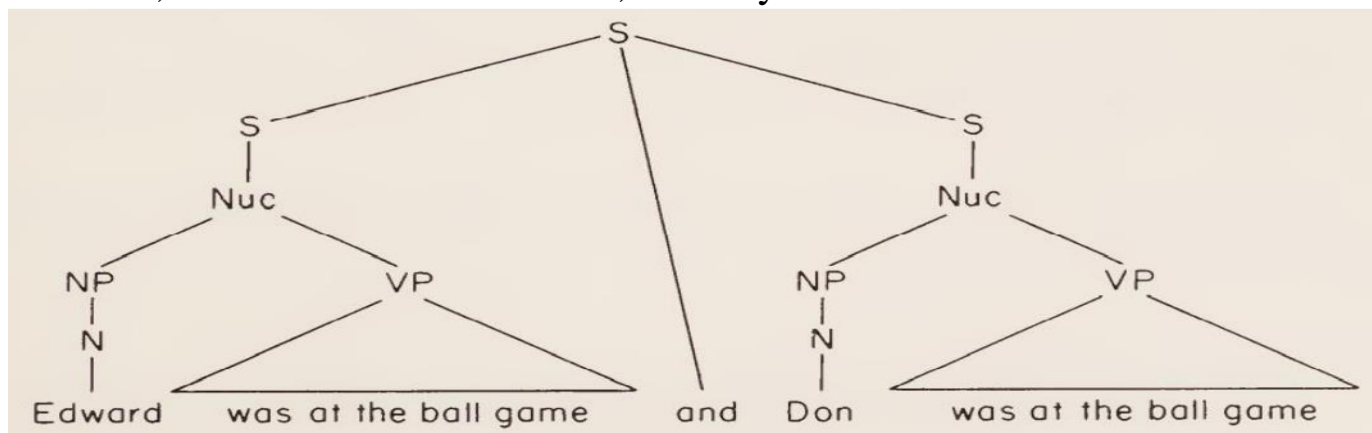
The sentences are accounted for by **the phrase-structure** and **transformational rules**. **Conjunctions** are **added** and **deleted** by the **conjunction addition** and **deletion transformations**.

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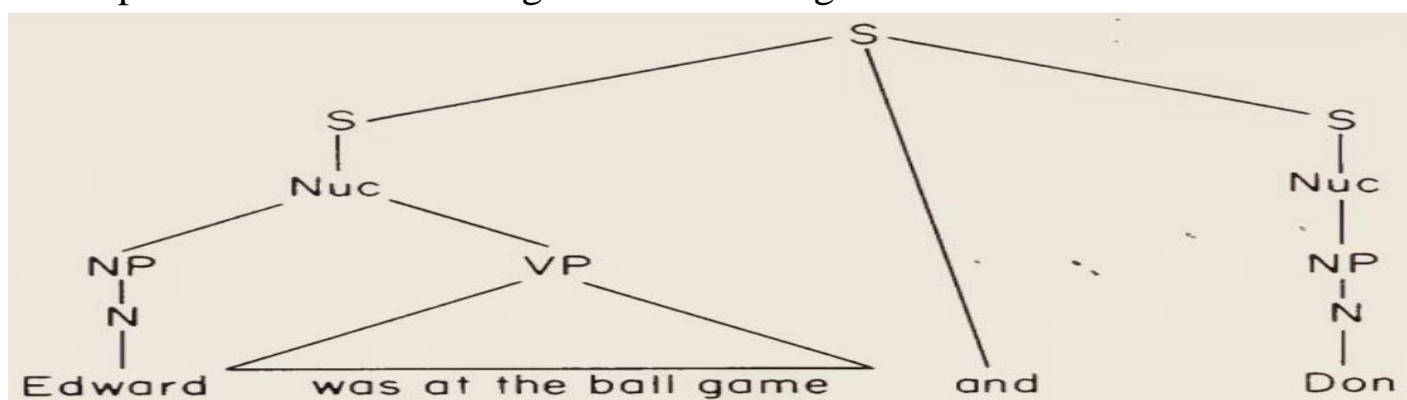
When **identical words** occur in both parts of a **compound sentence**, they are often **deleted in one of the sentences**:

1. Dave went to the carnival and (**Dave**) rode the Ferris wheel.
2. Bill sold his car and (**Bill sold**) his motorcycle.
3. Sue (**visited us last night**) and her husband visited us last night.
4. I was frightened, and Tony was (**frightened**), too.
5. I enjoyed the concert, but Sally didn't (**enjoy the concert**).
6. I could see him, and so could Bob (**see him**)

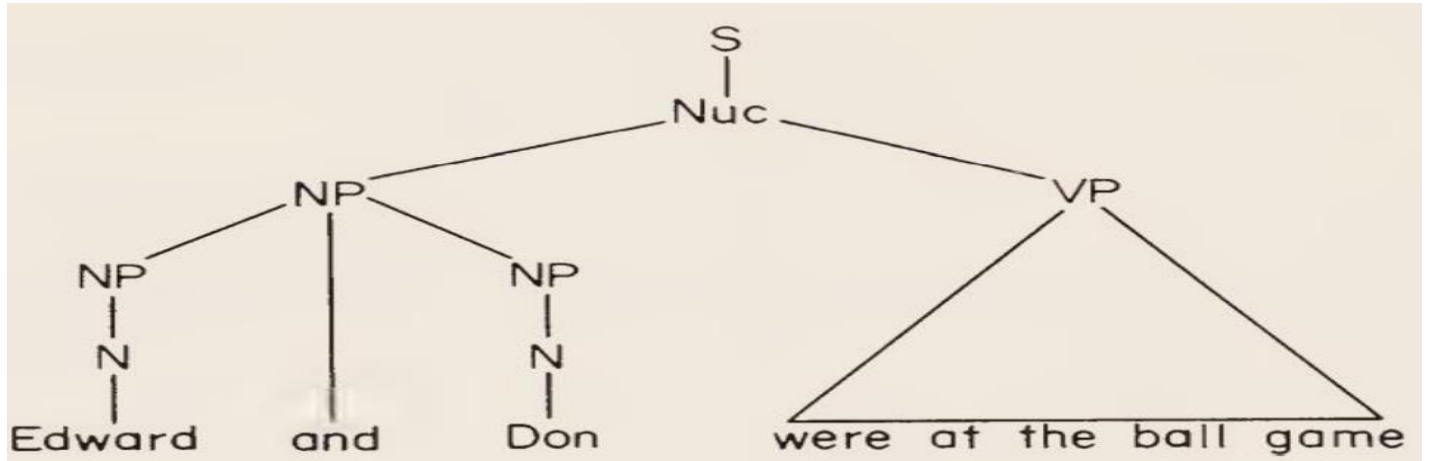
Deletion, like other transformations, alters syntactic structures:



The repeated VP is deleted to give the following derived structure:



Another transformation will attach the NP Don and the conjunction and to the first Nuc:



Usually **two or more structures** may be **conjoined** if they are **alike** (i.e., both **Ss**, both **NPs**, both **VPs**, etc.):

1. She is **eager** and **industrious**. (Two adjectives)
2. They worked **fast** but **carefully**. (Two adverbials of manner)
3. They **went to bed** late but **got up early**. (Two VPs)

If **two different kinds of structure are conjoined**, the result is ungrammatical:

*She is **friendly** and **a pleasant woman**. (Adjective and NP)

*The ball **rolled under the car** and **then**. (Adverbial of place and adverbial of time)

The Passive Transformation

- 1a. Walter saw me.
- b. I was seen by Walter.
- 2a. The boys had eaten the cake,
- b. The cake had been eaten by the boys.
- 3a. The waiter is clearing the table,
- b. The table is being cleared by the waiter.

In each of these pairs of sentences the two noun phrases have been inter-changed:

Walter saw me

I was seen by Walter

In addition, the auxiliary has been expanded. This expansion of the auxiliary should be examined carefully. Below only the sequence Aux + V has been given:

- 1a. Walter **saw** me.
- b. I **was seen** by Walter.
- 2a. The boys **had eaten** the cake
- b. The cake **had been eaten** by the boys.
- 3a. The waiter **is clearing** the table
- b. The table **is being cleared** by the waiter.

1. past	+ see	saw
past + be + en + see		was seen
2. past + have + en	+ eat	had eaten
past + have + en + be + en + eat		had been eaten
3. present + be + ing	+ clear	is clearing
present + be + ing + be + en + clear		is being cleared

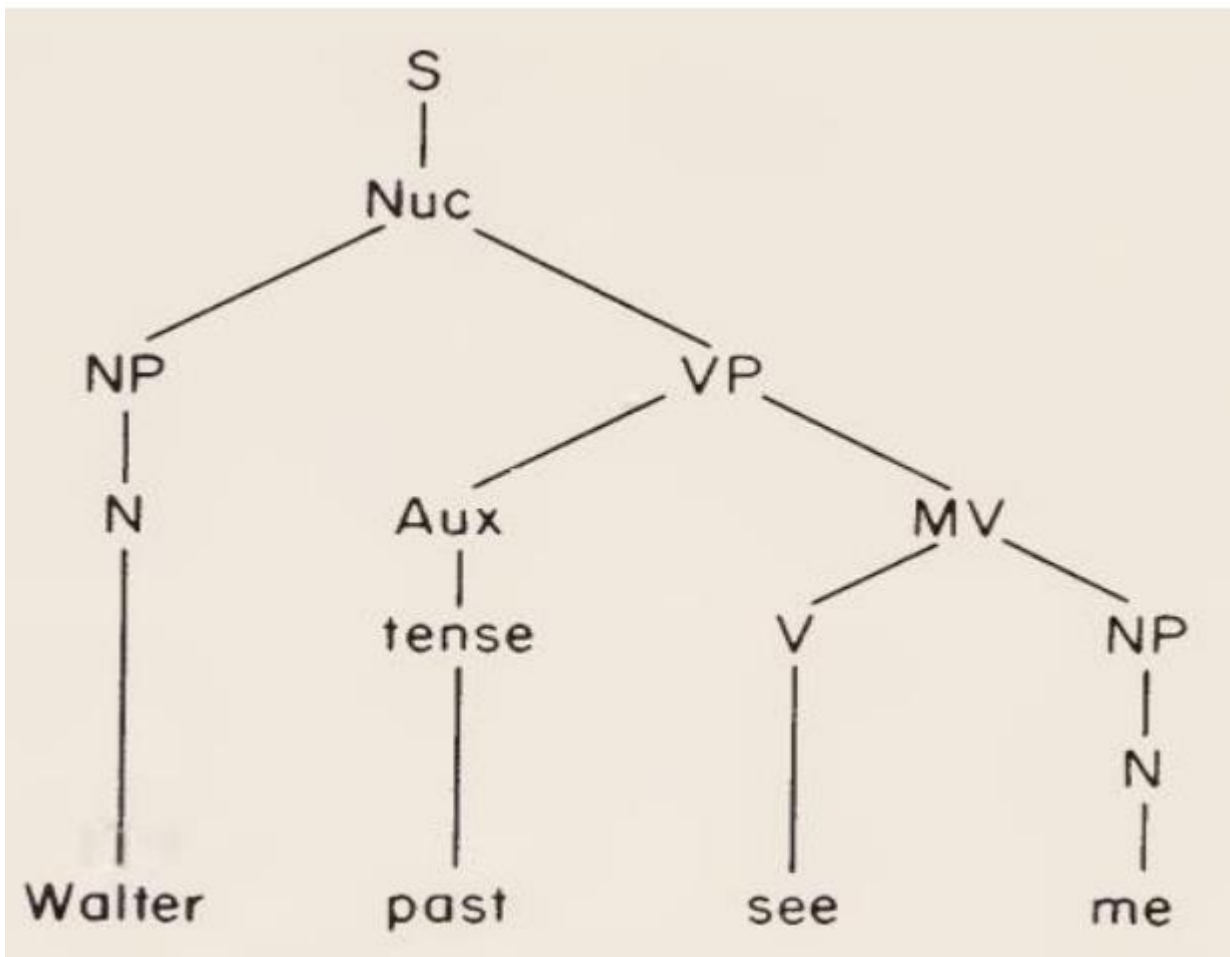
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It should be obvious now that **be + en** has been added between the **auxiliary** and the **verb**.

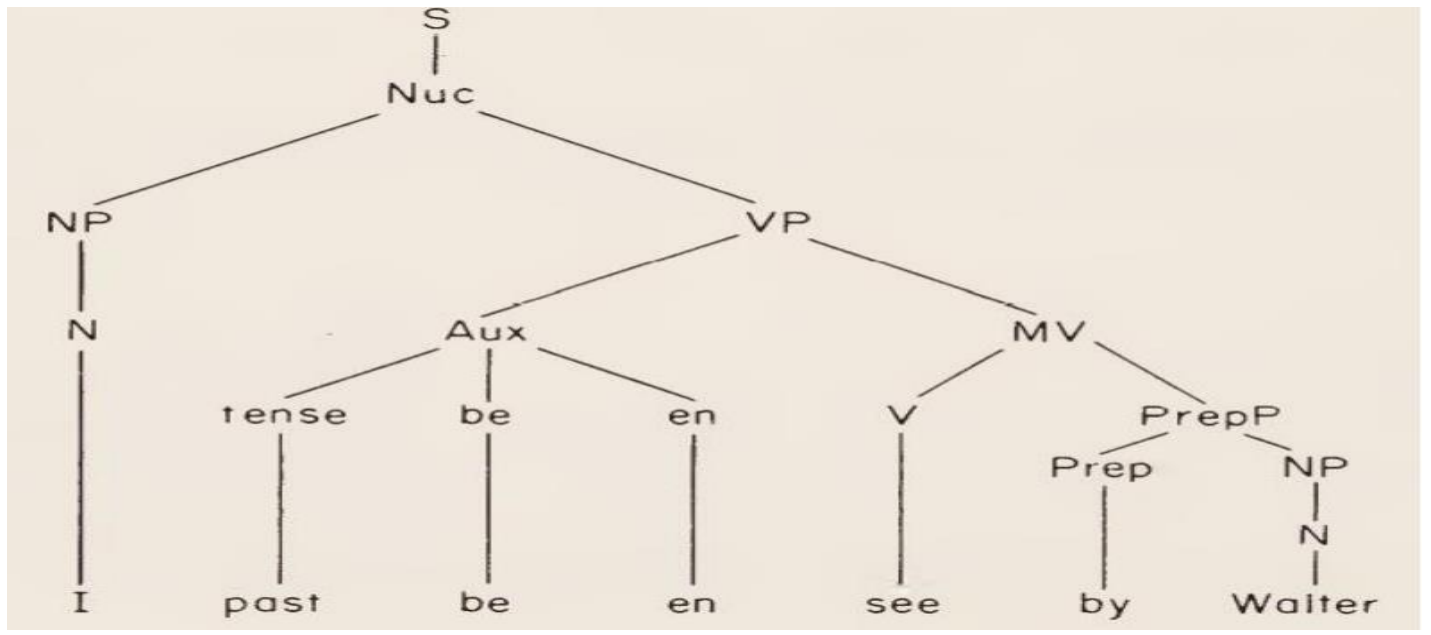
We may state the passive rule as follows:

$$(SM) \text{ NP}^1 + \text{Aux} + \text{V} + \text{NP}^2 + X \Rightarrow (SM) \text{ NP}^2 + \text{Aux} + \text{be} + \text{en} + \text{V} + \text{by} + \text{NP}^1 .$$

Walter saw me



I was seen by Walter



Relative Construction

The following sentences cannot be accounted for by the rules we have given so far:

- a. The boat that he is building is large.
- b. Janice picked the flowers which are in the vase.
- c. The man whom you met yesterday has painted the garage.

Yes-No questions are formed in the following way:

- a. Is the boat that he is building large?
- b. Has the man whom you met yesterday painted the garage?

Under the passive transformation, relative clauses fill the positions of NPs:

- b. The flowers which are in the vase were picked by Jane.
- c. The garage has been painted by the man whom you met yesterday.

We say that these sentences have been embedded into the noun phrases.

As we saw in the last chapter, repeated words are normally not permitted in a sentence. We either delete one of them, or we substitute a Pro form for it. Notice how the following structures are transformed by T-rel and T-pro:

1. Deep: The cup	you are washing the cup	is cracked
T-rel: The cup	the cup you are washing	is cracked
T-pro: The cup	that you are washing	is cracked

2. Deep: The car	he is riding in the car	is safe
T-rel: The car the	car he is riding in	is safe
T-pro: The car	which he is riding in	is safe

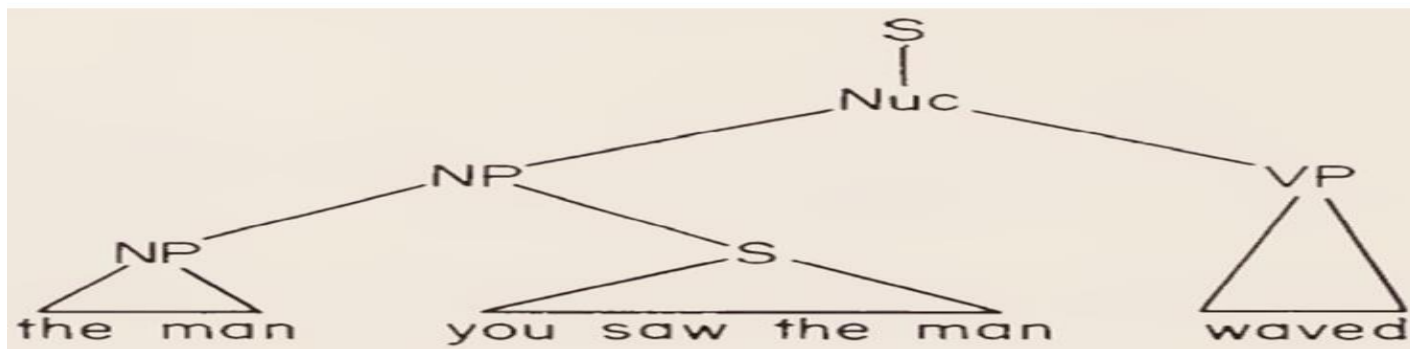
We call **who**, **which**, and **that** relative pronouns and the clauses they introduce relative clauses.

To account for relative clauses, we must expand our rewrite rule for the NP:

$$NP \rightarrow \left\{ \begin{array}{l} (Det) \ N \ (Pl) \\ NP + S \\ NP^n \end{array} \right\}$$

In the preceding chapters we have seen many NPs generated by the choices of (Det) N (Pl) and of NPⁿ; here is a diagram illustrating the other choice:

The embedded sentence **you saw the man** will become the relative clause **whom you saw**, and the entire sentence will be **The man whom you saw waved**. One constraint placed on this structure is that the embedded sentence must contain an NP identical to the one preceding the sentence, such as **the man** in this case. The deep structure **The man (you saw the duck) waved** cannot be transformed into a grammatical surface structure because of this constraint.



If the NP has the feature [+human], either who or that may be selected:

1. He is the **man who** spoke.
2. He is the **man that** spoke.
3. *He is the **man which** spoke.

If the NP has the feature [— human], either that or which may be selected:

1. This is the **house that** he bought.
2. This is the **house which** he bought.
3. *This is the **house whom** he bought.

If the NP is the **object of a preposition**, the preposition may be shifted with the NP or not:

She is the girl who(m) I danced with; She is the girl with whom I danced. If the preposition is shifted, whom must be used instead of who, and that may not be selected:

1. The chair **that I sat** in was broken.
2. *The chair in that I sat was broken.
3. The **chair in which I sat** was broken.
4. She is the girl **that I talked to**.
5. *She is the girl to that I talked.
6. She is the girl to whom I talked.
7. *She is the girl to who I talked

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Another kind of introductory word found in relative clauses is the relative adverb:

1. This is the town where I was born.
2. We argued about the time when he left.

Now look at this pair of sentences:

1. The man whom you saw looks like Jim.
2. The man you saw looks like Jim. Since these sentences mean the same thing, they must share a common deep structure: The man you saw the man looks like Jim. By T-rel this becomes The man the man you saw looks like Jim. If we apply T-pro, we get The man whom you saw looks like Jim. In Chapter Ten we saw that there are two possibilities for avoiding repetition: replacement by a Pro form and deletion. Instead of applying T-pro, we may apply T-del and get The man you saw looks like Jim. The difference in the two surface structures results from a different selection of transformations.

Any time that we have two surface structures with shared vocabulary and the same meaning, we expect them to have the same deep structure. These two sentences mean the same thing:

1. The woman who is waiting for John is his wife.
2. The woman waiting for John is his wife.

The second sentence has undergone a different deletion transformation. This optional transformation deletes relative pronoun, tense, and be:

$$X + \left\{ \begin{array}{c} \text{who} \\ \text{which} \\ \text{that} \end{array} \right\} + \text{tense} + \text{be} + Y \Rightarrow X + Y$$

Now look at the following deep structure: **Susan bought a car a car was red**. By the relative and Pro transformations this becomes **Susan bought a car which was red**. Since the relative pronoun is followed by **be**, let us make the optional relative **deletion transformation**: *Susan bought a car red. This sentence is **ungrammatical**. Another transformation, however, will move the adjective red in front of car and give **Susan bought a red car**, which is grammatical and means the same thing as **Susan bought a car which was red**. This transformation, which we call the **noun-modifier transformation (NM)**, moves an inflected single-word modifier to the position immediately in front of the noun.

This rule works for participles as well as for adjectives:

The boy who was yawning looked bored.

T-rel Del: The boy yawning looked bored.

T-NM: The yawning boy looked bored.

As you can see from this example, rule T-NM is optional for most participles, although it is obligatory for adjectives. Many uninflected words do not undergo **the noun-modifier transformation**:

1. The people here are friendly.
2. *The here people are friendly.

But some of them do:

1. The paragraph above is redundant.
2. The above paragraph is redundan

Generally, **adjectives with intensifies** may undergo this transformation:

1. He was a pitcher (who was) very good.
2. He was a very good pitcher.

Normally indefinite pronouns (someone, no one, everyone, everybody, etc.) block the noun-modifier transformation:

1. He found something (that was) unusual in the room.
2. *He found unusual something in the room