Chapter 8 (Part 1)
Transformations

Transformational Grammar
Engl 424

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Levels of Syntactic Structures

There are two different levels of syntactic structure in grammar:

- ↗ The level of D-structure (Deep structure)
- ↗ The level of S-structure (Surface structure)

S-structures are generated from D-structures by the application of movement rules. So the two levels are inter-related by a set of movement rules known as **transformations**.

The D-structure serves as input to the movement rules, whereas the S-structure serves as the output of the movement rules.
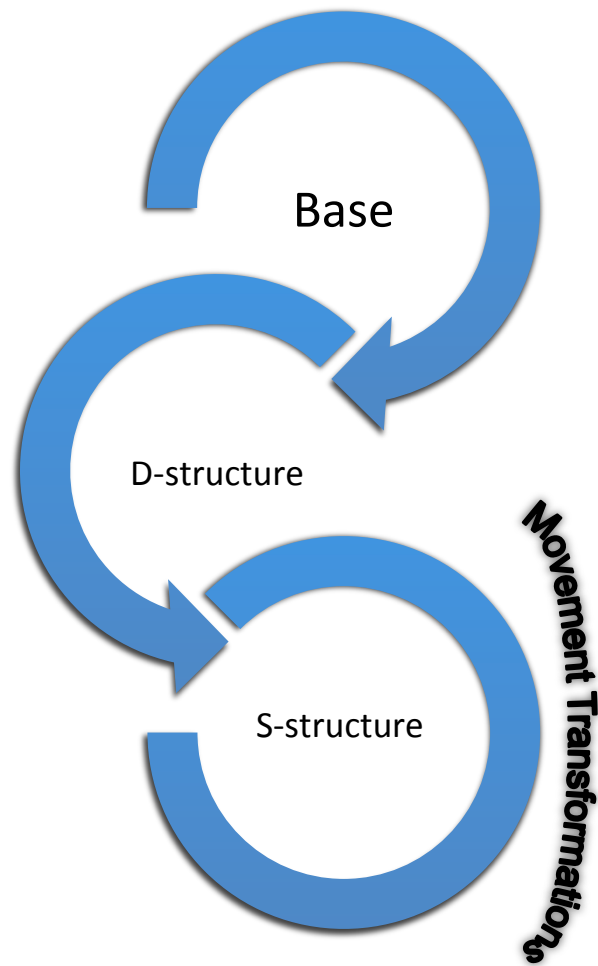
E.g.

They have completed the project.

The D-sturcture ➜ They [I e] [VP have completed the project].

The S-structure ➜ They [I have] [VP completed the project].

Levels of Syntactic Structures

Base

D-structure

S-structure

Movement Transformations

V movement

A finite I carries Tense (Past/Present) and Agreement (Person, Number) features because Modals are generated under I, the relevant Tense and Agreement features are realized on the Modal.

E.g.

John [*I* does][*VP* annoy me].

It is the Modal in I which is inflected and carries the relevant Tense/Agreement features which are realized as the present tense suffix –es, while the V is VP is uninflected.

However, not all finite Clauses contain Modal Auxiliaries. So what is the structure of these Clauses?

I will still carry the relevant Tense/Agreement features but will be empty of any lexical item. The inflection will be on the leftmost V of VP.

E.g.

John annoy**s** me. ➜ *annoys* carries the –s inflection which characterizes a third person singular present tense verb.

V movement

How can Tense/Agreement inflections associated with I end up in a verb which originates as the head V of VP?

A solution to this problem is suggested by Koopman (1984). She claims that in finite clauses where I does not contain a Modal and hence is empty, the head V of VP moves into the empty I position by a rule of V movement, and thereby comes to acquire the Tense/Agreement properties associated with I, so becoming an inflected verb-form.

E.g.

John [I e] [VP [V annoy] me]

V Movement

John [I annoys] [VP me]
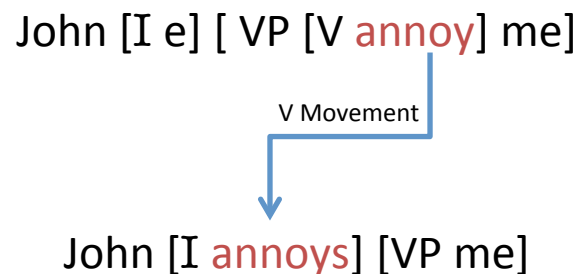
V movement

The uses of the finite forms of the Verbs *have* and *be* can be used as an evidence of Koopman's claim. All the uses of the verbs *have* and *be* originate within VP, either as Specifiers of V or as the head V of VP.

E.g.
Students have finished their work ➔ [S [NP [N Students]] [VP [ASP have] [V finished] [NP [D their] [N work]]]] ➔ **Specifier of V**
Students have an exam➔ [S [NP [N Students]] [VP [V have] [NP [D an] [N exam]]]] ➔ **Head V**

However, a number of linguists have suggested that *have* and *be* get moved out of VP and into I by a rule related to Koopman's V movement rule. In other words they say that if the finite clause has an empty I, then the leftmost occurrence of *have* and *be* moves out of VP into the empty I constituent and acquiring all the relevant Tense/Agreement inflections associated with I.

V movement

What evidence is there that finite forms of the Verbs *have* and *be* end up in I (even though they clearly originate within VP)?

Jackendoff (1972) offered an evidence in relation to negation facts. In sentences such as

He [I may] not [VP have finished].
He [I may] not [VP be working].

The negative particle *not* is positioned after the Modal *may* in I and before the Aspectual Auxiliary *have* and *be* in VP.

But in sentences such as
He has not finished
He is not working

The negative particle *not* is positioned after the Aspectual Auxiliary *has* and *is.*

How can this be since we know that Aspectual Auxiliaries originate within VP?
The leftmost occurrence of *have/be* gets moved out of VP into I by V movement. Thus *have/be* will come to be positioned in I and precede the negative particle not which is positioned after I and before VP.
He [I e] not [VP **have** finished.
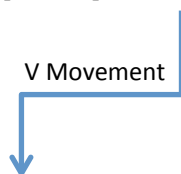
V Movement

He [I **has**] not [_finished]

I movement

I movement is responsible for the phenomenon generally known as 'Subject-Auxiliary Inversion'

E.g.

[S He will tell the truth]
Will [S he tell the truth]?

The Modal *will* is positioned within the S after the Subject NP *he* in the declarative, but positioned outside the S before the Subject NP *he* in the interrogative.

In such cases the Modal is moved from the I position into the empty C position by a rule called I movement.

E.g.
[S [C e] [NP He] [I will] [VP tell the truth]]. ➔ D-structure

I Movement

[S [C Will] [NP he] [I e] [VP tell the truth]]. ➔ S-structure

This means that Inversion can only take place in Clauses not introduced by an overt Complementiser. In other words, where there is an Inversion there will be no Complementiser, and where there is a Complementiser there will be no Inversion.

I movement

[S [C e] [NP John] [VP **be** unhappy]] ➜ **D-structure (generated by the base grammar).**

V Movement

[S [C e [NP John] [I **is**] [VP _ unhappy]]]

I Movement

[S [C **Is**] [NP John] [I _] [VP _ unhappy]]? ➜ **S-structure (The final derived structure)**

This is all for today

SEE YOU NEXT WEEK ☺