Lesson #8

Deep structure and surface structure

Deep structure and **surface structure** (also **D-structure** and **S-structure**, although these abbreviated forms are sometimes used with distinct meanings) are concepts used in linguistics, specifically in the study of syntax in the Chomskyan tradition of transformational generative grammar.

The deep structure of a linguistic expression is a theoretical construct that seeks to unify several related structures. For example, the sentences "Pat loves Chris" and "Chris is loved by Pat" mean roughly the same thing and use similar words. Some linguists, Chomsky in particular, have tried to account for this similarity by positing that these two sentences are distinct *surface forms* that derive from a common (or very similar) deep structure.
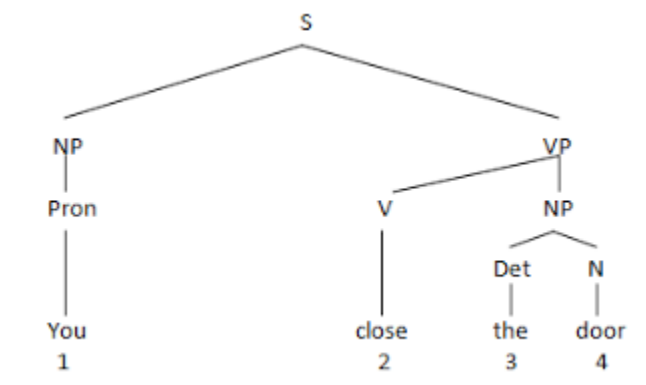
Deep Structure vs. Surface Structure

One of the most important concepts proposed by **Chomsky** is the concept of **surface** and **deep structure**. The Generativism paradigm claims that the concept of structural analysis proposed by Structuralism paradigm is too swallow, it only reaches the level of surface structure. **Surface structure** can be defined as the syntactic form they take as actual sentences. In the other words, it is forms of sentences resulted from modification/ transformation. Consider these sentences:

(1) You close the door.
(2) The door is closed by you.
(3) Close the door!

The first sentence is active, second is passive, and the last is imperative. However, if you take a look those closely, you will find that those three are very closely related, even identical. They seem to be identical, since they have the same undelying abstract representation that is called **deep structure**. It is defined as an abstract level of structural organization in which all the elements determining structural interpretation are represented. If you want to analyze the relation of those three sentences, the first you have to know about the deep structure of them, since deep structure is the input of **transformation rules**. We cannot apply transformation rules if you don't have **deep structure**. transformation rules are sets of rules which will change or move constituents in the structures derive from the **phrase structure rules**.

The DS (deep structure)


```
                    S
          _____/ _____
         /                   \
        NP                    VP
        |                 ___/ \___
       Pron              /         \
        |               V          NP
        |               |         /  \
       You            close     Det    N
        1               |        |     |
                      close     the   door
                        2        3     4
```

(2)

      SD (structure description) :   1 2 3 4
      SC (Structural change)   :   3 4 + be 2+en 1
      SS (Surface structure)   :   The door is closed by you

Note: the SC is passive transformation rules

(3)   SD: 1 2 3 4
      SC: 0 2 3 4
      SS: Close the door!

Note: 0 is deletion

From the above example, it can be concluded that deep structure then is a pure representation of thematic relations. Anything which is interpreted as the subject or object of a given predicate will be in the subject or object position of that predicate at Deep structure no matter where it is found at Surface structure.

Deep and Surface Structure

- Charlie broke the window.   (Active Voice)
- The window was broken by Charlie.   (Passive Voice)
- Jack loves his brother.   (Active Voice)
- His brother is loved by Jack.   (Passive Voice)

Some linguists, in particular *Noam Chomsky*, have tried to account for this similarity by positing that these two sentences are distinct (different) *surface forms* that derive from a common *deep structure*.

Deep and Surface Structure

The sentences can have deep structure like this:

- It was Charlie who broke the window.
- Was the window broken by Charlie?
- It is Jack loves his brother.

  And so on…

An abstract level of structural organization in which all the elements determining structural interpretation are represented is called *deep structure. OR* The underlying level where the basic components can be represented is called their *deep structure*.

Deep and Surface Structure

- Charlie broke the window. (Active Voice)
- The window was broken by Charlie. (Passive Voice)
- Jack loves his brother. (Active Voice)
- His brother is loved by Jack. (Passive Voice)

The distinction between them is a difference in their surface structure. They have different syntactic forms of individual sentence. This superficial difference is called *surface structure.*