

Thirdly ;

The creative aspect's of language or dinamicity of language, the capacity of language to make infinite use of finite means.

The first postulate will be discussed in 2.2. Competence and Performance, while the second and the third postulates will be discussed in 2.3. The organization of Generative Grammar.

2.2 COMPETENCE AND PERFORMANCE

Everyone, according to Chomsky, has an innate system which is suitable for all languages which enables him to learn. By the innate system, a child can make and choose a grammar of the language he uses. Such condition is called 'competence'. Briefly, competence is the speaker-hearer's knowledge of his language. On the other hand, the actual use of language in concrete situation is called 'performance'. Performance is the reflection of competence, but it is still influenced by the extralinguistic phenomena (such as memory limitations, distractions, shifts of attention and interest, and errors (random or characteristic)). So, to gain an ideal speaker - hearer in which the performance is completely the reflection of competence, we must avoid them as far as possible.

Hence, the distinction between 'acceptable' and

'grammatical' sentences or utterances takes place as well. 'Acceptable' refers to the utterances that are perfectly natural and immediately comprehensible without paper-and-pencil analysis. The more acceptable sentences are those that are more likely to be produced, more easily understood, less clumsy and in some sense more natural. The notion 'acceptable' is not to be confused with 'grammatical'. 'Acceptability' is a concept that belongs to the study of performance, whereas 'grammaticalness' belongs to the study of competence. For examples :

1. a. *I called up the man who wrote the book that you told me about.*
- b. *Quite a few of the students who you met who come from New York are friends of mine.*
- c. *John, Bill, Tom and several of their friends visited us last night.*
2. a. *I called up the man who wrote the book that you told me about up.*
- b. *The man who the boy who students recognized pointed out is a friend of mine.*

The sentences of no. 2 are low on the scale of acceptability but high on the scale of grammaticalness, in the technical sense of this term.

2.3. THE ORGANIZATION OF A GENERATIVE GRAMMAR

Chomsky stresses again that the knowledge of a language involves the implicit ability to understand indefinitely many sentences. Hence, a generative grammar must be a system of rules that can iterate to generate on indefinitely large number of structures. Such system of rules can be analyzed into three major components of a generative grammar : the syntactic, phonological, and semantic component.

The syntactic component specifies an infinite set of abstract formal objects, each of which incorporates all informations relevant to a single interpretation of a particular sentence. The syntactic component contains two sub components : A base subcomponent and transformational subcomponent. A base subcomponent consists of a set of categories (including such things as S, NP, Adv, etc; this is a 'context-free' grammar which generates 'phrase marker') and a lexical component (consisting of lexical entries each of which is a system of features, for example, animate, human, abstract, etc). This base subcomponents are the elementary units of which deep structures are constituted. Meanwhile, a transformational subcomponent is concerned with generating a sentence, with its surface structure from its basis. In other words, we say that the transformational subcomponent converts the deep structure

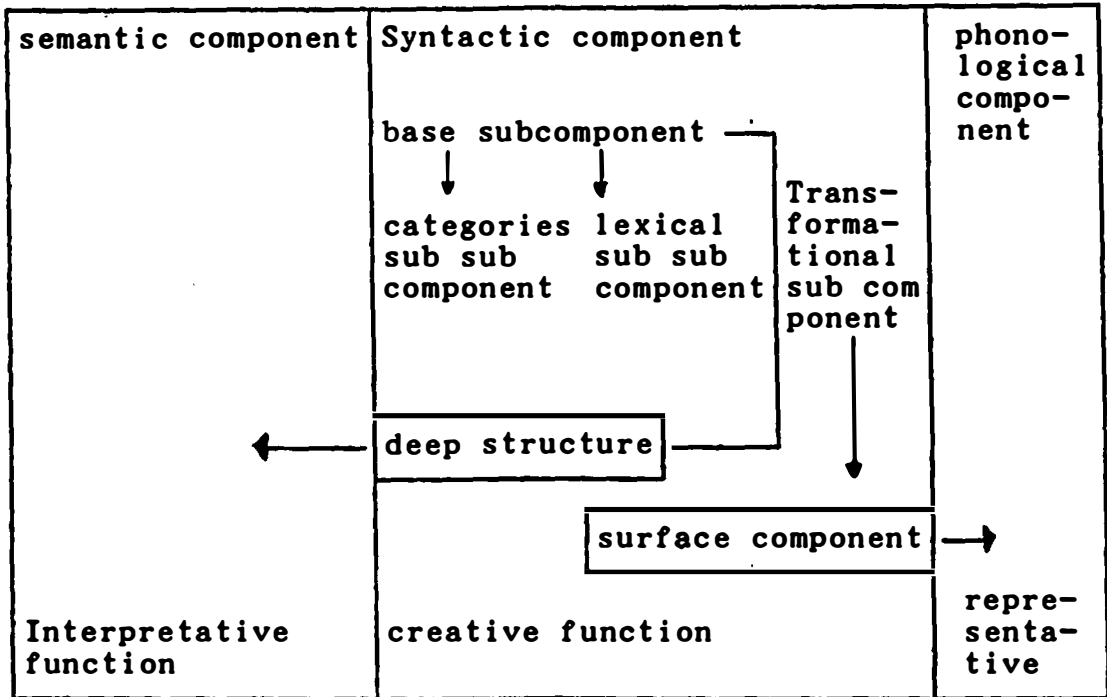
to a surface structure.

The phonological component determines the phonetic form of a sentence generated by syntactic rules. That is, it relates a structure generated by the syntactic component to a phonetically represented signal. It contains phonological rules that is assigned to the surface structure of a phonetic representation in a universal phonetic alphabet (using distinctive features).

The semantic component determines the semantic interpretation of a sentence. That is, it relates a structure generated by the syntactic component to a certain semantic representation. It assigns a meaning to deep structures and by implication to their derived surface structure. Both the phonological and semantic components are therefore purely interpretive. Each utilizes information provided by the syntactic component concerning formatives, their inherent properties, and their interrelations in a grammar must specify, for each sentence, a 'deep structure' that determines its phonetic interpretation. The first of these is interpreted by the semantic component; the second, by the phonological component.

Eventually, in actuality, what Chomsky concerns in 'Aspects' is primarily with deep structure and, in particular, with the elementary objects of which deep structure is constituted. In brief, we can describe the organization

of generative grammar as the following :



2.4. REALIZATION OF TRANSFORMATIONAL ANALYSIS

Now, we may consider a generative grammar with a base component containing, among many others, the rules and rule-schemata (a) and the lexicon (b) :

a. (i) $S \longrightarrow NP \quad \text{Predicate - Phrase}$

(ii) $\text{Predicate-phrase} \longrightarrow \text{Aux} \quad \text{VP (Place) (Time)}$

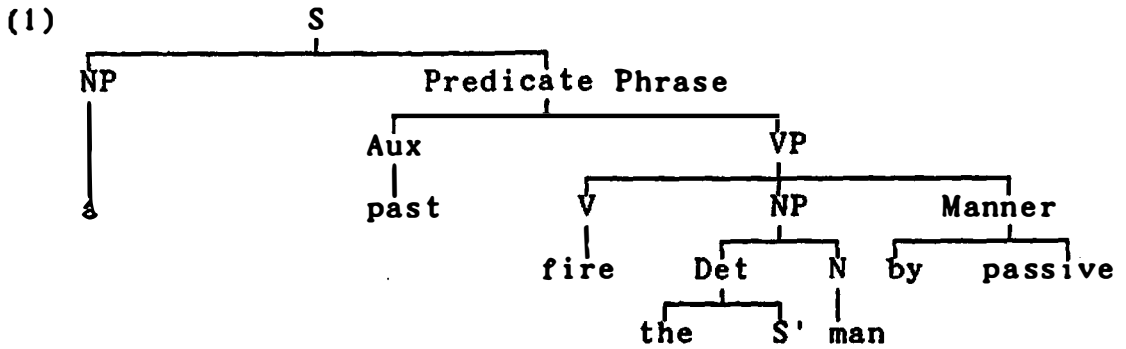
(iii) $VP \longrightarrow \left[\begin{array}{l} \text{Copula} \quad \text{Predicate} \\ \text{V} \left[\begin{array}{l} (\text{NP}) (\text{Prep-phrase}) (\text{prep-phrase}) (\text{manner}) \\ \text{S}' \\ \text{Predicate} \end{array} \right. \end{array} \right]$

(iv) $\text{Predicate} \longrightarrow \left[\begin{array}{l} \text{Adjective} \\ (\text{like}) \end{array} \quad \text{Predicate-Nominal} \right]$

- (v) Prep-phrase \longrightarrow Direction, Duration Place, Frequency, etc.
- (vi) V \longrightarrow CS
- (vii) NP \longrightarrow (Det) N (S')
- (viii) N \longrightarrow CS
- (ix) [+ Det -] \longrightarrow [\pm count]
- (x) [+ count] \longrightarrow [\pm animate]
- (xi) [+ N, + -] \longrightarrow [\pm animate]
- (xii) [+ animate] \longrightarrow [\pm human]
- (xiii) [- count] \longrightarrow [\pm Abstract]
- (xiv) [+ V] \longrightarrow CS/ α Aux - (Det β)
- (xv) Adjective \longrightarrow CS/ α - β } Where α is an N and β is an N
- (xvi) Aux \longrightarrow Tense (M) (Aspect)
- (xvii) Det \longrightarrow pre-Article of Article (post-Article)
- (xviii) Article \longrightarrow [\pm Definite]

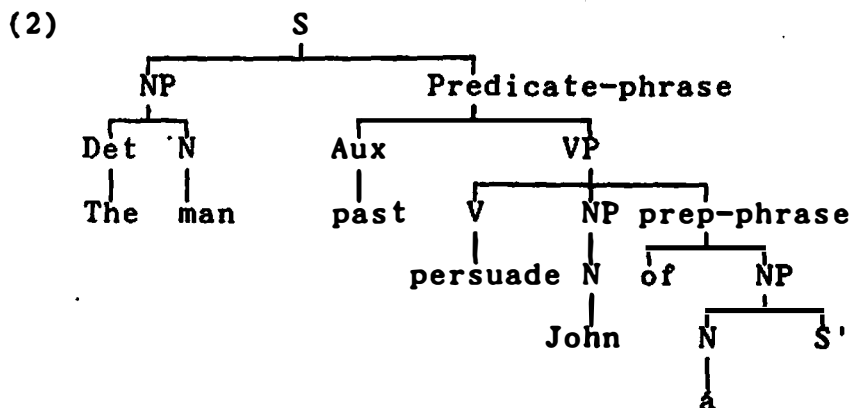
- b. (i) Word [\pm N]
- (ii) Word [\pm V]
- (iii) Word [\pm Adjective]
- (iv) Word [\pm Adverb]
- (v) Word [\pm Abstract]
- (vi) Word [\pm count]
- (vii) Word [\pm M]
- (viii) Word [\pm Det]
- (ix) Word [\pm Common]
- (x) Word [\pm transitive]

Those system of rules will generate the phrase-marker (1)-(3) as the following :



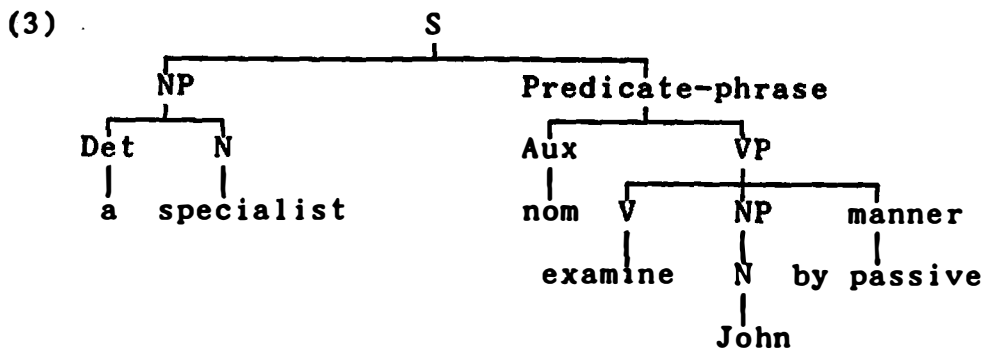
This phrase marker will be the basis for the sentence :

"The man was fired"



This phrase marker will be the basis for the sentence :

"The man persuaded John"



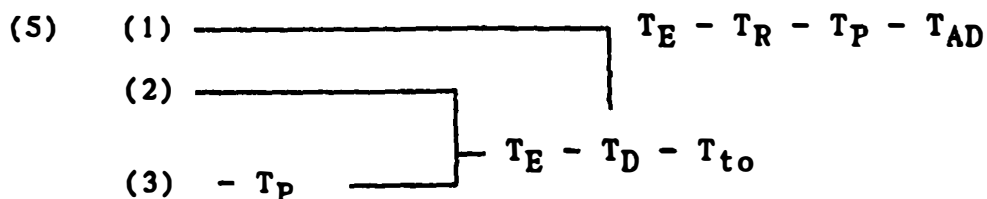
This phrase marker will be the basis for the sentence (by the different choice of auxiliary) :

"John was examined by a specialist"

(4) In the next, the sequence of phrase-marker (1), (2) and (3) will be the basis for the well-formed sentence :

"The man who persuaded John to be examined by a specialist was fired"

The 'transformational history' of the wellformed sentence above by which it is derived from its basis might be represented, informally by the following diagram :



We interpret that as follows : first, apply the passive transformation T_P to the base phrase-marker (3); then embed the result in the base phrase-marker (2), in place of S' , by a generalized (double-base) substitution transformation T_E , giving a phrase marker for "the man persuaded John of & John nom be examined by a specialist"; to this apply first T_D , which deletes the repeated NP "John", and then T_{to} which replace "of & nom" by "to", giving a phrase-marker for "the man persuaded John to be examined by a specialist"; next embed this in the position

of S' in (1), by T_E ; to this apply the relative transformation T_R , which permutes the embedded sentence with the following N and replaces the repeated phrase "the man" by "who", giving a phrase-marker for "a fired the man who persuaded John to be examined by a specialist by passive"; to this phrase-marker apply the passive transformation and agent deletion (T_{AD}), giving (4).

The diagram (5) is an informal representation of what we may call a 'transformational marker'. It represents the transformational structure of the utterance (5) in very much the same way a phrase-marker represents the phrase structure of a terminal string. In fact, a transformation marker may be formally represented as a set of strings in an alphabet consisting of base phrase-marker and transformations as its elements, just as a phrase-marker may be formally represented as a set of strings in an alphabet consisting of terminal symbols, category symbols, and specified features.

The deep structure of an utterance is given completely by its transformation-marker, which contains its basis. The surface structure of a sentence is the derived phrase-marker given as the output of operations represented in the transformation-marker. The basis of the sentence is the sequence of base phrase-marker that constitute the terminal points of the tree diagram (the left-hand nodes

in (5)). When transformation markers are represented as in (5), the branching points correspond to generalized transformations that embed a constituent sentence (the lower branch) in a designated position in a matrix sentence (the upper branch).

