Realistic Transformational Grammar and Functional Syntax

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I) INTRODUCTION

In the past twenty years, two distinct strands have been visible in the search for linguistic theory. On the one hand, there has been the intensely theoretical interest of Chomsky, with his emphasis on providing explanatory frameworks for every level of linguistic generalization. On the other hand, there has been the largely factual concern of Kuno and his followers, who have provided a mass of statistical data about correlations between the rules to be expected in languages of different types.

The theory of Transformational-Generative grammar can be divided into two periods, which can be called "Expansion" period and "Concrete" period. During the early "Expansion" period, a primary concern was the description of grammatical phenomena that seemed to be beyond the reach of pure constitunent structure grammars, and transformations were quite powerful. The theory of grammar countenancing the powerful devices in transformations was correspondingly loose, and consequently failed to provide an adequate solution to the projection problem.

During the concrete period, various regularities were extracted from Transformations themselves and were formulated in a more general fashion. Examples are trace theory,control theory, movement theory, GB theory, ect., to name but a few in short, the focus of attention shift from the construction of a general theory of grammar, restricted as to the devices it employed, which could be ascribed to universal grammar.

Recently, the claims that suggest the ultimate in concrete has been stated, Chomsky has noted;

> I would like to begin with a few observations about some problems that arise in the study of language, and then to turn to an approach to these questions that has been gradually emerging from work of the past few years and that seems to me to show considerable promise. I will

assume the general framework presented in Chomsky (1975; 1977a, b; 1980b) and work cited there. A more extensive discussion of certain of the more technical notions appears in my paper "On Binding" (Chomsky, 1980a; henceforth, OB). The discussion here is considerably more comprehensive in scope and focuses on somewhat different problems. It is based on certain principles that were in part implicit in this earlier work, but that were not given in the form that I will develop here. In the course of this discussion, I will consider a number of conceptual and empirical problems that arise in a theory of the OB type and will suggest a somewhat different approach that assigns a more central role to the notion of government; let us call the alternative approach that will be developed here a "government-binding (GB) theory" for expository purposes. I will then assume that the GB theory is correct in essence and will explore some of its properties more carefully, examining several possible variants and considering their advantages and defects.[1]

The limit to which this investigation tends is the thesis that transformation rules, at least for a substantial core grammar, can be reduced to the single rule "Move α", where α is an arbitary category: i.e., move any category anywhere.[2]

"GB theory" and "Move α" are those the logical conclusion of an attempt to extract generalizations from particular rules. However, there is reason to believe that "GB theory" and "Move α" are not an attainable goal.

This property of the theories I will investigate is a desirable one; there is good reason to suppose that the correct theory of universal grammar in the sense of this discussion (henceforth: UG) will be of this sort. Of course, it raises difficulties in reserach, in that consequences are often unforeseen and what appear to be improvements in one area may turn out to raise problems elsewhere. The path that I will tentatively select through the maze of possibilities, sometimes rather arbitrarily, is likely to prove the wrong tone, in which case I will try to unravel the effects and take a different turning as we proceed. I will be concerned here primarily to explore a number of possibilities within a certain system of leading ideas, rather than to present a specific realization of them in a systematic manner as an explict theory of UG.

On the other hand, analysis of liguistic structure in which emphasis is placed on the communicative function of the elements, in addition to their structural relations, it is called Functional syntax. It states those that state how the grammar fits the data: how the particular rules of the grammar apply in the analysis of any given sentence. So, for example, we might know the following facts; how to study:

1) Parallel Interpretation
2) Center Embedding and Conjunction Juxtaposition
3) Pronominalization and Reflexivization
4) Direct-Discourse Perspective
5) Empathy Perspective

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1. Chomsky, *Lectures on Government and Binding* (U.S.A.: FORIS, 1981), p. 1.
2. Baltin, *A Landing site theory of Movement Rules, Linguistic Inquire* (MIT: 1982).
3. Chomsky, *Letures on Government and Binding* (U.S.A.: FORIS, 1981) p. 3.

6) Functional Sentence Perspective (theme/rheme, old/new predictable/unpredictable, activated/inactivated, nonfocus/focus, etc)

7) Island Constraints, Subjacency, Specified Subject Condition, Tensed S condition

8) Extraction from picture Nouns

9) Wh-clefting and it-clefting

Super-Equi Np Deletion

10) Gapping

11) VP Deletion

12) Principles of Discourse Deletion

13) Questions and Answers

The theory I propose here takes account of the positions to which elements may move, these positions are quite restricted, the theory is based upon a variety of data, and I will show that competing theories neither cover the same range of phenomena that it does not permit the expression of significant as set of generalizations. Here, I propose only the data (examples) about GB theory, Movement theory ect, by Chomsky and Functional syntax by Kuno.

II) NEW RULES IN GENERATIVE GRAMMAR

I would like to write a few rules that arise in the study of language in the past few years. I will assume the general framework present in Chomsky and work cited there. Here, I will consider a number of conceptual and empirical problems that arise in a theory "Move α" and will suggest a somewhat different approach that assigns a more central role to the notion of GB theory. Besides them, I will comment a little about the generative Semantics.

(1)

$$\text{syntax} \downarrow$$
$$\text{S-structure}$$
$$\text{PF} \swarrow \quad \searrow \text{LF}$$
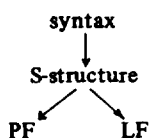
The rules of the syntax generate S-structures. One system of interpretive rules, those of the PF-component, associates S-structures with representations in phonetic form (PF); another system, the rules of the LF-component, associates S-structures with representations in "logical form" (LF), where it is understood that the properties of LF are to be determined empirically and not by some extrinsic concern such as the task of determining ontological commitment or formalizing inference; the term "LF" is intended to suggest – not more – that in fact, the representations at this level have some of the properties of what is commonly called "logical form" from other points of view.

At the most general level of description, the goal of a grammar is to express the association between representations of form and representations of meaning. The system (1) embodies certain assumptions about the nature of this association: namely, that it is mediated by a more abstract S-structure and that the mappings of S-structure onto PF and LF and independent of one another.[4]

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4. *Ibid*, p. 17.

S-structure = Move (D-Structure).

D-structure = pure representation of GF - ϕ. Here, the base generates D-structures which are associated with S-structure by the rule Move-α.

Some properties of these systems and some alternative appraoches will be considered below, but a good deal will be presupposed from the published literature.

Bounding theory poses locality conditions on certain processes and related the central notion of government theory is the relation between the head of a construction and categroies dependent on it. ϕ-theory is concerned with the assignment of thematic roles such as agent-of-action, etc. (henceforth: ϕ-rol) Binding theory is concerned with relations of anaphors, pronouns, names and variables to possible antecedents. Case theory deals with assignment of abstract case and its morphological realization. Control theory determines the potential for reference of the abstract pronominal element PRO.

1) Move α theory

1) The students all should have been studying.
2) The students should all have been studying.
3) The students should have all been studying.
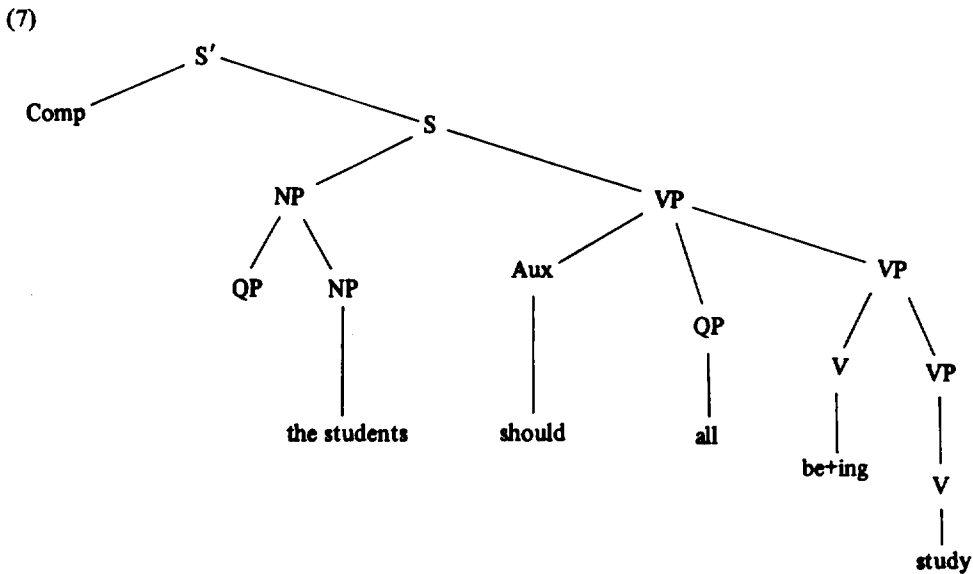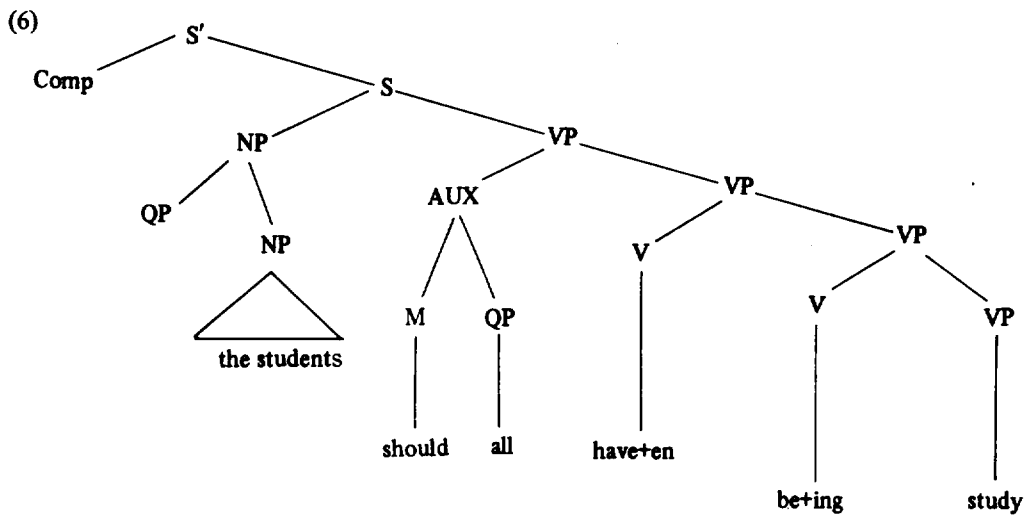4) The students should have been all studying.

This theory requires that each of the positions in which floated quantifiers may appear to mark a phrasal projection of V; however, the phrasal projection, in order to obey the LALC, need not be maximal. In other words, the theory simply requires an underlying structure such as (5) for (1)-(4):

5)
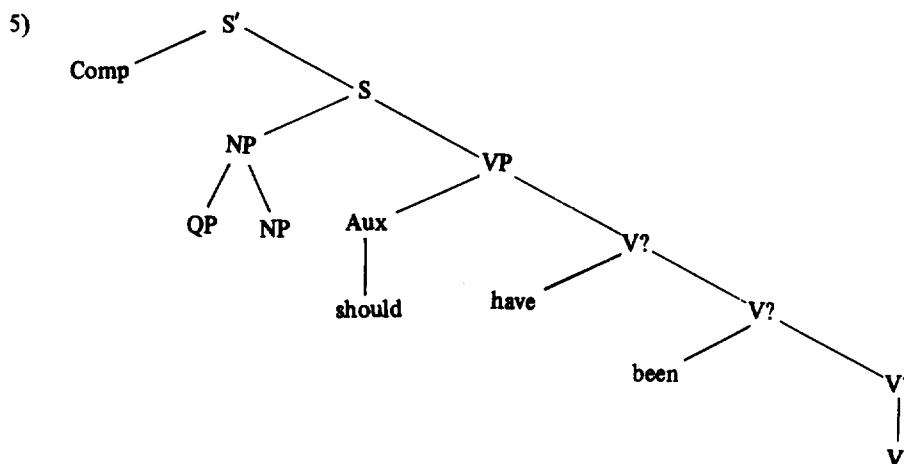
The question marks next to the Vs reflect indeterminacy about the maximality of these phrasal projections. The key features of this analysis of the Aux and VP have all been justified elsewhere in the literature. Dougherty(1970) presents independent evidence that the sequence of modal and VP forms a constituent. Ross(1969), McCawley(1970), and Akmajian, Steele, and Wasow(1979) present evidence for the right-branching VP in (5) based on VP Deletion. Therefore, there is evidence that the optimal

grammar of English provides constituent boundaries that the theory sanctions as potential landing sites to yield (1)-(4). However, I have not shown that floated Qps occur only as the leftmost elements of phrasal projections of V in derived structure. I will turn to that now.

Let us consider three possibilities for the positions QPs that would yield the data in (2)-(4), only one of which is compatible with the movement theory : 1) floated QPs could occur as right-adjunctions of verbs marked (+Aux) (of course, this would not account for (1): (2) they could simply occur between elements marked (+Aux) and phrasal projections of V (in other words. daughter-adjoined to the node immediately dominating a phrasal projection of V) ; (3) they could occur as the leftmost elements of phrasal projections of V. To illustrate, the three possibilities mentioned would yield the following three structures for (2)

(6)

(7)

(8)

```
                    S'
           Comp          S
                    NP        VP
                 QP    NP   Aux      VP
                                QP        VP
              the students  should         V      VP
                             all               V      VP
                                            have+en   V
                                                     be+ing  STUDY
```
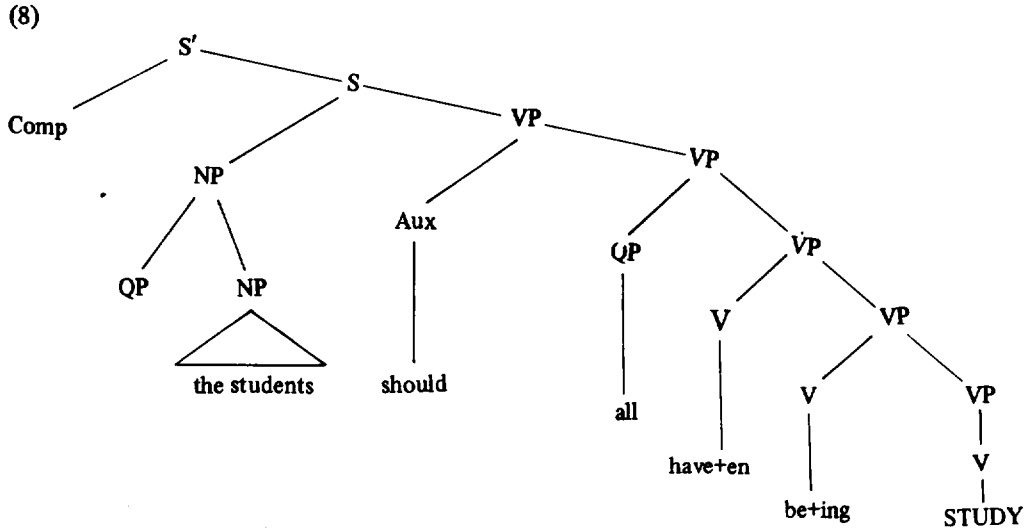
It is possible to show in a variety of ways that floated QPs do not adjoin to Aux.

First, they are left behind when the Aux and subject invert under Subject-Aux Inversion :
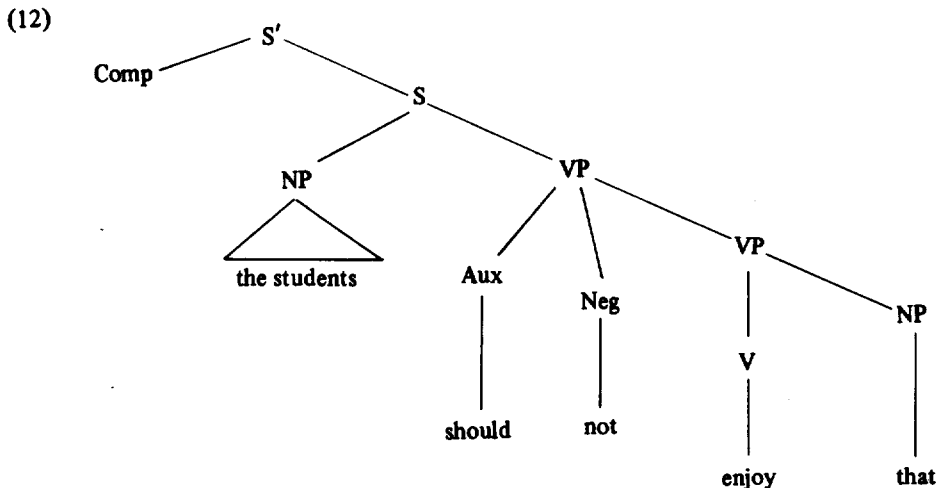
(9)   Should the students each have been studying?

(10)   Should each the students have been studying?

I use each because, when it has not floated, it requires a following of to mark the partitive phrase (*each the students). The string in(10), therefore, requires an analysis whereby each has floated, adjoining to the Aux, and the Aux has subsequently inverted with the subject.

The second piece of evidence that floated QPs do not adjoin to the Aux comes from the interaction of Q-float and sentential negation as is well known (Culicover 1976), uncontracted negatives do not form a constituent with the Aux. The structure of (11) is thus (12).

(11)   The students should not enjoy that.

(12)

```
                    S'
           Comp          S
                    NP        VP
               the students  Aux   Neg    VP        NP
                            should  not    V
                                         enjoy      that
```

As a result, the negative does not invert with the Aux when the subject and Aux invert:

    (13) Should not the students enjoy that?

    (14) Should the students not enjoy that?

In the above, we saw that Q-Float is formulated as shown in the following, Move QP to Ia.

    Besides the above examples, I will show some examples that Wh Movement, Local Movement, Move pp, ect were formulated from transformational grammar :

    (1)   np (S') np

        SD : 1 2

        SC : Move factor 2 to position Ib.

    (2) $S'' \longrightarrow$ Top S'

        $S' \longrightarrow$ Comp $\begin{cases} S \\ S'' \end{cases}$

    (3) Move$_{X''}$(+wh) to IIb

        Comp $-$ W $-$ $_{X''}$(+wh)-y

         1   2   3   4 $\longrightarrow$ 3+2 ϕ 4

    (4) X-C^{MAX} $-$ $\begin{cases} S'' \\ PB \\ 3 \end{cases}$ $-$ Y

        1   2   4 $\longrightarrow$ 1 ϕ 3+2 4

    (5) X $-$ $\begin{cases} VP \\ S \\ S' \end{cases}$ $-$ PP-Y

        1   2   3 4 $\longrightarrow$ 1 3+2 ϕ 4

    (6) NP $-$ Aux

        1   2 $\longrightarrow$ 2 1

        NEG - Aux

        1   2 $\longrightarrow$ 2 1

    2)   Government

1) I thought that I left my pipe on the Television.

[INFL [+Tense]] [vp [v think] [s̄ that [s he [INFL [+Tense]]
[vp [v leave] [np my pipe] [pp [p on] [NP the Television]]]]]]

    The matrix verb "think" governs its complement S̄, but not any element (e.g., I) inside S̄. The embedded verb governs its complements "my pipe and on the Television", but does not govern any element (e.g., my or the Television) within these categories. Thus, "my pipe and pipe" objective case (the latter, by percolation). The two occurrences of INFL govern "I and I", assigning them nominative case. The preposition "on" governs and assigns objective case to its complement "the Television".

The genitive rule assigns genitive case to the ungoverned element "my".

2) a) Kim was very proud of Kang.

b) Cho is quite certain to pass.

a') Kim was [AP [$\overline{A}$ very [A proud]] [of Kang]]

b') Cho is [AP [$\overline{A}$ quite [A certain]] [S t to pass]]

The head of $\overline{N}$ in [NP NP* $\overline{N}$] does govern NP*.

So, proud and certain do c-command their complement, then proud governs its complement and certain governs the embedded trace subject.

If I define "government" accordingly:

1) [Z .... Y .... @ .... Y] , where

   a) @ = X^O

   b) where ϕ is a maximal projection,

   if ϕ dominates Y then ϕ dominates @

   c)   @ c-command Y

2) @ c-commands Z if and only if

   a) @ does not contain Z

   b) suppose that Y1 .... Yn is the maximal sequence such that

   1) Yn = @

   2) Yi = @j

   3) Yi immediately dominates Yi − 1

So, if we consider the above data,

we will go to the results of the following :

   1) [s NP [VP V ....]]

   2 [AP [$\overline{A}$ quite [A certain]] [s t to VP]]

   3) [VP [VP V NP] [NP*]

   4) [NP [NP Det N] [s NP* ....]]

3) Binding theory

(1) I introduced each other to Kim.
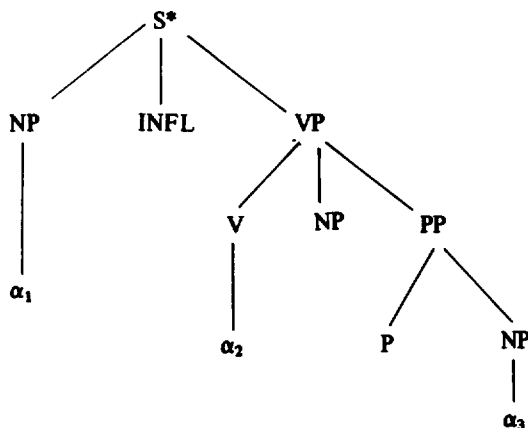
α_1 can not be free in S″ if INFL = [[+Tense], AGR] : α_2 must be bound by α_1, α_3 must be bound by either α_1 or α_2.

(SSC ; "I introduced each other to Kim".)

(2) I would prefer for each other to work hard.

```
                    S*
           _____/ _____
         NP                   VP
                        _____/ _____
                       V                S̄
                                  _____/ \
                                for        S
                                      ____/|\____
                                    NP   to    VP
                                    |
                                    α4
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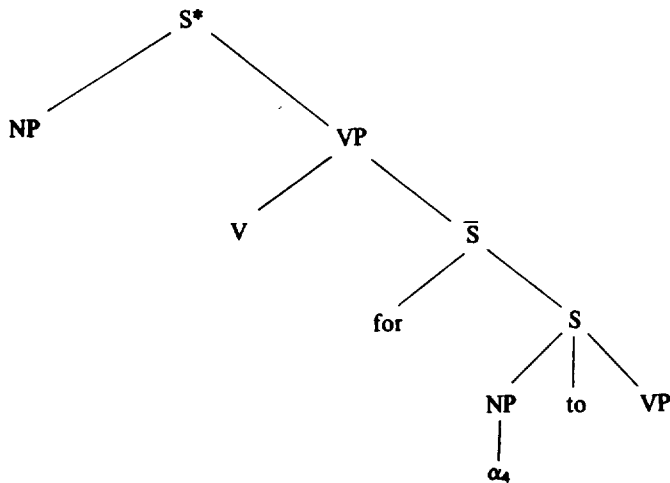
α_4 cannot be free in s* [SSC ; "I would prefer [for each other to work]] .

(3) I thought each other to be competent.

```
                      S*
               _____/ _____
             NP               VP
                       _____/ _____
                      V                S
                               _____/ _____
                             NP               VP
                             |
                             α5
```
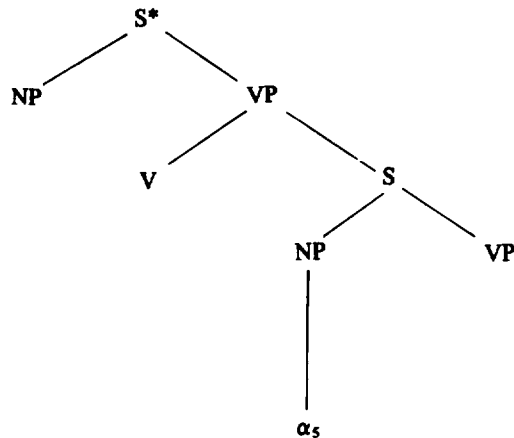
α_5 can not be free in S* [SSC ; "I thought [each other to be competent"]] .

The instances of the following illustrate the fact that it is a configurational property presumably, c-command — that determines the operation of the binding theory, not a requirement that anaphors (or pronominal) search for subjects or objects as antecedents, in some sense of this notion that has any independent sense apart from the configurational properties.

(4)

NP'
β $\overline{N}$
NP   PP
P α_6

(5)

γ
NP*
α_7 N
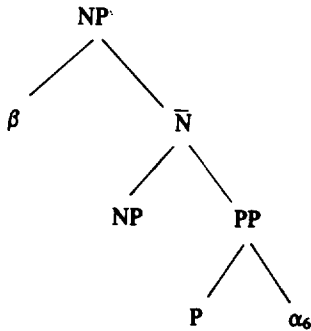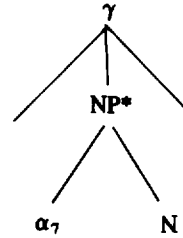
Thus, in nominals corresponding to Verbal Constructions the antecedent-anaphor relation holds when the anaphor is within the head $\overline{N}$((as in "their [$\overline{N}$ hatred of each other]," "their [$\overline{N}$ admiration for each other's work]," ect.], but when it is outside this $\overline{N}$, in which case c-command would be violated (e.g., *"their departure after each other's parties, " ect). Similarly, when the configurational properties hold, the relation of the possessive NP to the nominal head may be quite arbitrary (e.g., "their attitudes towards each other" (". . . towards each other's friends"), "their pleasure in each other's company," "their stories about each other, etc." While other factors intervene leading to a range of uncertainty of judgment, nevertheless the basic operative principle appears to be as just indicated.

If we have (vp V-ing α_6) instead of $\overline{N}$ in (4), the situation is essentially the same.

Suppose that we have (vp V-ing . . .) in place of $\overline{N}$ in (5), as in (6) :

(6) *We preferred (NP* each other's reading the paper)

This is ungrammatical, contrary to what is predicted in the OB-framework. Where α_1 is a pronoun, the situation is reversed; it must be free where the corresponding anaphor can not be.

The one exception is α_7 in (5), which may be bound in γ ("We read [NP* The paper]).

We saw the several examples that we have been using the term: "binding" in several senses.

The basic notion of the theory of binding may be defined as the following:

(i)   α is X-bound by β if and only if α and β are coindexed, β c-commands α, and β is in an X-position.

(ii)   α is X-free if and only if it is not X-bound

(iii)   α is locally bound by β if and only if α is X-bound by β, and if γ Y-binds α then either γ Y-binds β or γ = β

(iv)   α is locally X-bound by γ if and only if α is locally bound and X-bound by β

α is variable if and only if

(i)   α = [NP e]

(ii)   α is in an A-position (hence bears an A-GF)

(iii)   there is a β that locally $\overline{A}$-binds α[5]
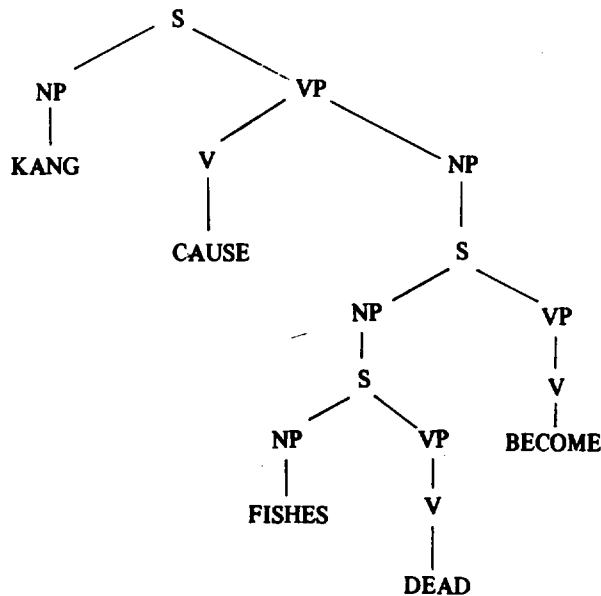
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5.   *Ibid*, pp. 184-185.

(12) Binding Theory

  (A) An anaphor is bound in its governing category

  (B) A pronominal is free in its governing category

  (C) An R-expression is free[6]

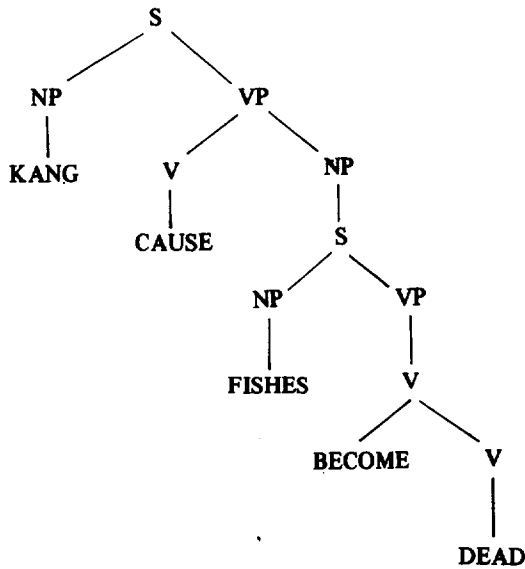**4) Transformational Semantics**

1) Kang killed fishes

(1-1)

A new transformational derivation goes along with this new deep structure. Transformations are no longer dependent on specific lexical items as the Causative and Inchoative transformations were. Instead, there are general transformations which have the effect of collecting various semantic primitives together under a single node. In (1-1) when the transformations have collected CAUSE, BECOME and DEAD into a single constituent, they can be jointly substituted for by the English lexical item KILL.

Notice that unlike lexical insertion in a standard grammar, which inserts lexical items into 'empty' deep structure trees (or substitutes them for dummy terminal symbols), lexcal insertion in a generative semantics grammar now substitutes a lexical item for a complex of semantic eldments that represent its meaning.

The derivation of sentence (1) (Kang killed fishes) from the deep structure (1-1) proceeds by application of the Subject Raising transformation to raise FISHES into the clause above. The a newly introduced 'collection' transformation called Predicate Raising raises DEAD and adjoins it to the higher predicate BECOME, to form the composite verb BECOME DEAD. Thus, the result of this is the dervied structure
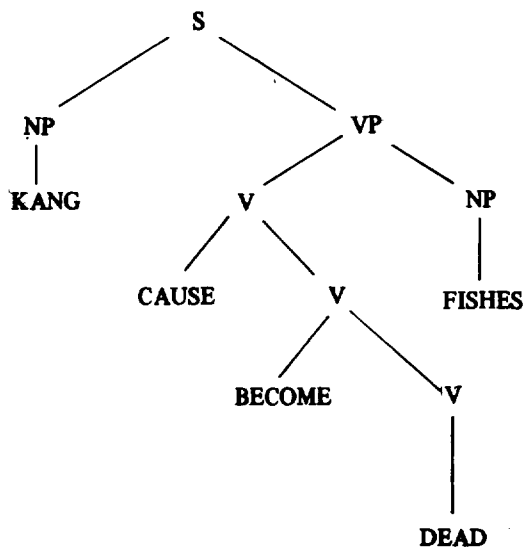
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6. *Ibid*, p. 188.

(1-2).

```
                      S
              NP            VP
              |         V        NP
           KANG         |         |
                     CAUSE        S
                              NP      VP
                              |       |
                           FISHES     V
                                  BECOME   V
                                           |
                                          DEAD
```

Notice that(1-2) has only two clauses, but one of them contains a complex verb. Subject Raising then raises FISHES again, into the highest clause, and Predicate Raising raises BECOME DEAD and adjoins it to CAUSE. This produces the structure(1-3),in which there is only one clause, and the three original verbs have now been combined into a single constituent.

(1-3)

```
                      S
              NP              VP
              |         V           NP
           KANG      CAUSE   V      |
                              BECOME  V   FISHES
                                      |
                                     DEAD
```

After these collection transformations have been applied, lexical items can be substituted for semantic elements, subject to the usual condition on substitution transformations that only single constituents can be substituted for. In (1-3), for example, KILL can substitute for CAUSE BECOME DEAD. But if Predicate Raising had not been applied on the highest cycle (i.e., if the derivation had stopped at the stage of (1-2), then KILL could not be substituted, since CAUSE, BECOME and DEAD would not form a single constituent. Rather, the sentence (2) would be derived, in which DIE has substituted for the semantic complex BEOCME DEAD.

(2) Kang caused fishes to die.

If Predicate Raising did not apply on either cycle, the structure at the Point of lexical insertion would be (1-1), and each verb would have to be substituted for independently, giving the sentence (3)

(3) Kang caused fishes to become dead.

Three sentences, (1), (2), and (3), are thus derivable from the same underlying structure (1-1), depending on what options are taken in the transformational component. The synonymy of these sentences is thus predicted without recourse to semantic projection rules.

Once syntactic structures are allowed to contain universal semantic elements as their terminal symbols, the syntactic deep structure of sentences can serve as their semantic representations. The interpretive semantic component can be dispensed with entirely, hence the name "generative semantics." The derivation of a surface structure begins with the generation of a semantic representation which is simultaneously a syntactic deep structure, and this is then mapped by the successive application of syntactic transformations onto a surface structure.

III) FUCTIONAL SYNTAX

As an illustration of the explanation power of his Functional Syntax, KUNO observed the following;
(1) Embedding and Juxtaposition
   (1) The cheese that the rat ate

Hypotheses

(1) Certain syntactic patterns (center-embedding and conjunction juxtaposition, in particular)
(2) Whether these patterns arise or not is determined primarily by the interaction of major constituent word orders.
(3) Languages will embody devices to minimize those patterns that cause perceptual difficulties.
a. *The cheese (the rat(the cat chased) at was rotten. (center-embedding)
b. *That(that(the world is round) is obvious) is dubious.
a. The cat chased the rat (that ate the cheese (that was rotten)).
                    (Right-embedding)
b. John thinks that (Mary believes that (the world is flat)).
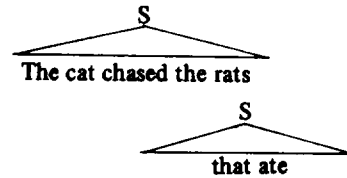   (Right-embedding)

c. (((Jon)'s brother)'s wife)'s friend came to see me.

<div align="center">(Left-embedding)</div>
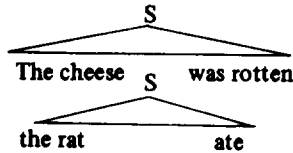
a. Center-Embedding   b. Right-Embedding

SOV with Clause-Initial Conjunctions

a. That that (the world is-round) is-obvious is-dubious. (e+j)

b. John that that (the world is-round) is-obvious says. (e+j)

c. That everyone that (the world is-round) knows says. (c)

d. John that everyone that (the world is-round) says (c).

e. That (that the cat chased) rat ate cheese was-rotten. (c+j)

SOV with Clause-Final Conjunctions

a. (The world is-round) that is-obvious thta is-dubious.

b. John (the world is-round) that is-obvious that says. (e)

c. Everyone (the world is-round) that knows that is-obvious. (e)

d. John everyone (the world is-round) that knows that says. (e)

e. (The cat chased that) rat ate that cheese was rotten.

VSO with Clause-Final Conjunctions

a. Is-dubious is-obvious (is-round the world) that that. (e+j)

b. Says John is-obvious (round the world) that that.

c. Is-obvious knows everyone (is-round the world) that that. (e+j)

d. Says John knows everyone (is-round the world) that that. (e+j)

e. Was-rotten the cheese ate the rat (chased the cat that) that. e+j)

VSO language   a. Prepositional: color (of flowers (in vase (on table)))
               b. Postpositional: color (flowers (vase (table on)in)of)
SOV Language   a. Prepositional: (of(in(on table)vase)flowers) color
               b. Postpositioal: (((table on)vase)in)flowers of)color

Pragmatically controlled anaphora and linguistic form (Linguistic control of Pronouns)

Postal (1966): The idea that a form like she in she dances well is a 'replacement' or 'substitute' for some other noun, say in 'discourse contexts' or the like, seems to me completely without basis . . . It is quite sufficient to indicate precisely that such forms refer to object-types whose particular referents are assumed by the speaker to be known to the person spoken to.[7]

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7. Postal (1966).

McCawley (1970): If a personal pronoun occurs in a sentence which does not contain an antecedent for that pronoun, then either the pronoun has an antecedent in some preceding sentence in the discourse (possibly a sentence uttered by someone other than the speaker) or that pronoun is used deictically (i.e., is a direct reference to someone or something physically present as the sentence is uttered) and is stressed and accompanied by a gesture.[8]

Lasnik (1976): Surely Postal's claim, with its consequence that at least some pronouns are present in the base, is preferable to McCawley's. For example, there are trivial cases which are inconsistant with the latter. Consider a situation in which an unpopular man is preset at a party. He there for an hour during which period he is avoided by all, no one even mentioning his name. Finally, he storms out in a huff. It would be neither unacceptable, nor incomprehensible nor bizarre for someone at this point to remark, "Well, h's left." But McCawley's theory exploitly excludes such a use of a personal pronoun. . ."[9]

Context : John and Mary are walking in the country and they suddenly see a rattlesnake three feet away.

(1) Watch out, it bites without warning!

(2) Watch out, they bite without warning!

(3) (John wants his pants that are on a chair and he says to Mary)

Could you hand them (*it) to me, please?

(4) (same situation, but with a shirt)

Could you hand it (*them) to me, please?

(5) (John is trying to stuff a large table (la table, femine) in the trunk of his car: Mary says:)

Tu n'arriveras jamais a la (fen) faire entrer dans la voiure you not arrive never *le (mas) make enter in the car You will never manage to get it(fem/*it(mas.) into the can (the same.situation, but with a desk (le bureau, masculine)) Tu n'arriveras jamais a le(mase.) faire entrer dans la voirure.

Discourse Concepts and Discourse Constraints

(1) Presupposiion: A sentence S presupposes a sentence S' just in case S logically implies S' and the negation of S, –S, also logically implies S'.

    E.g. a.   (John regrets that (Mary has left)) implies S' = Mary has left.

         b.   (John doesn't regret that(Mary has left)) implies S'.

         c.   John doesn't regret that Mary has left. *As a matter of fact, Mary hasn't left. (contradiction between presupposition and assertion)

(2) Order of Assertion and Presupposition: The speaker can assert S' and presuppose it later, but not vice versa.

    E.g. a.   <u>Mary has left</u>, and John regrets that <u>she has (left)</u>

              Asserted   Presupposed

         b.   *John regrets that <u>Mary has left</u>, and <u>she has (left)</u>.

                        Presupposed   Asserted

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8.   McCawley (1970).

9.   Lasnik (1976).

(3) Implication of It-Clefts : An it-cleft sentence it is v that S' in which v is an obligatory constituent of S' contains the conversational implicature that –S' (the negation of S') holds for(X) i v, where X is the pragmatically relevant set of which v is a member.

E.g.   a.   It was Paul that (Mary went to the movies with φ).

Presupposes S' = Mary went to the movies with someone, and implies –S' for(X) – Paul, namely, Mary did not go to the movies with anyone else.

b.   *It was on the table that(Mary didn't put the typewriter φ)

The sentence implies that–s' is true for (X) – on the table, namely, that Mary put the typewriter everywhere except on the table. (b) is acceptable only in contexts in which such an implication is justificable (e.g., when Mary put the typewriter somewhere else, and lifted it up again, etc.)

(4) Ban on Clause-Internal That-Clause : A that-clause that functions as a noun phrase cannot be clause-internal. (a perception-motivated constraint?)

E.g.   a.   It is obvious that the world is round.   (clause-final)

b.   Is it obvious that the world is round.   (clause-final)

c.   That the world is round is obvious.   (clause-initial)

d.   *Is that the world is round obvious?   (clause-internal)

(5) Discourse Condition on the Use of That-Clause Subjects : A that-clause subject cannot be used coherently in a discourse if the clause does not represent information which the speaker can assume to be in the hearer's consciousness at the time of hearing the utterance.

E.g.   a.   ## (discourse initial). Hi, it's really tragic that Maty has died, isn't it?

b.   ## Hi, *that Mary has died is tragic, isn't it?

(6) Distinction Between Presupposed and Given Information

Given Information; Information which the cooperative speaker may assume is appropriately in the hearer's consciousness

a.   Presupposed and Given

well, that I want to talk to you about was . . .

. . . That Mary has been forced to resign is really tragic.

b.   Presupposed, but not Given.

Hi, isn't it tragic that Mary has been forced to resign?

What is John so unhappy about? —Well, he regrets that Mary has been forced to resign.

c.   Nonpresupposed and Not Given

What did John say? — He said that he did't want to do it.

(7) Old, predictable Information versus New, Unpredictable Information : Information that is recoverable from the preceding discourse is old and predictable.

E.g.   a.   What is John doing now? – He is playing tennis.

old   new

_____ φ playing tennis.

    b.   What are John and Bill doing now?

          John is playing tennis and Bill is studying in the libraby.

          .... playing tennis and .... studying in the library.

          unrecoverable   unrecoverable

(8) Predictability Requirement on Backward Pronominalization;

Backward Pronominalization is allowable only when the speaker can assume that the hearer can predict (or determine) the reference of the pronoun from the preceding context.

    E.g. a.   If John can, he will do it.

          b.   If he can, John will do it. (the preceding discourse must have been about John)

          c.   If you can find a policeman, ask him to tell you ...

          d.   *If you can find him, ask a policeman to tell you ...

          e.   Who is visiting John? ?His brother is visiting John.

          f.   Who is visiting who? *His brother is visiting John.

(9) Constraint on Genitive -Triggered Pronominalization:

Pronominalization with a genitive Np as trigger usually requires that the genitive NP be coreferential with the discourse topic.

    E.g. a.   ??whose$_i$ brother killed him$_i$?

          b.   John$_i$'s brother is visiting him$_i$. (According to ((9), (b) is possible only if John has the topic of the preceding discourse)

          c.   *John$_i$'s brother is visiting him$_i$, and Bill$_j$'s sister is visiting him$_j$. (the second him, if destressed, will refer to John)

(10)The Function of Stressed Pronouns:

Stress on pronouns forewards the hearer that normal rules for establishing coreference linkage would not work.

    E.g. a.   John$_i$'s brother is visiting him$_i$, and Bill$_j$'s sister is visiting HIM$_j$.

          b.   cf. John$_i$ is visiting his$_i$ brother, and Bill$_j$ is visiting his$_j$ sister. (no emphatic stress needed for the second pronoun)

          c.   John$_i$ hit Bill$_j$, and then he$_j$ hit Mary. (use the parallel structure interpretation rule)

          d.   John$_i$ hit Bill$_j$, and then HE$_j$ hit Mary. (Don't use the parallel structure rule)

(11)Thematic and nonthematic Adverbs

    a. The primary interpretation of sentence-initial time and place adverbs is that of scene-setting thematic adverbs

        cf.   Theme is what the sentence is about.

        e.g. In 1960, John went to Paris to. . .

             In New York. it is not safe to walk on the street by yourself even in the daytime.

        n.b. These are not when and where sentences, but what and how sentences, given in 1960 and in New York.

    b. The primary interpretation of sentence-final time and place adverbs is that of when and where.

  e.g. John arrived at the airport at 9 in the evening.

    (When did John arrive at the airport?)

    I spent my wummer vacation in Vermont.

    (Where did you spend your summer vacation?)

 c. Exceptions to (b): time and place adverbs which are well establsihed in the preceding discourse, or which are anchored to the time of speech.

  e.g. 1. John came to see me on March 5.

    2. John came to see me 8 days ago.

    3. John came to see me yesterday.

    4. John came to see me this morning.

N.B All these sentences can be interpreted as when sentences (i.e., as answers to the question When did John come to see you?)

In addition, it is easy to get the thematic interpretation (i.e., interpretations (3′, 4′) for (3, 4), but it is difficult to get the thematic interpretation (i. e., (1′)) for (1) ;

   1′. On March 5, John came to see me. (What happened on Mary 5?)

   2′. 8 days ago, John came to see me.

   3′. Yesterday, John came to see me.

   4′. This morning, John came to see me.

(12) The Unmarked Order of Time and Place Adverbs

 a. Sentence-initial thematic adverbs

  Once upon a time, in a small village by the sea, there lived...

    Time   Place

 b. Sentence-final time and place specifying adverbs (when and where)

  John used to peddle drugs in the fifties in the sixties.

         place   time

(13) Scope of Negation and Interrogation; Thematic adverbs are always outside the scope of negation and interrogation.

 E.g. a. John wasn't born in 1960. He was born in 1961.

        Focus of negation

   b. *In 1960, John wasn't born.

(14) Surface Structure Empathy Hierarchy; It is easiest for the speaker to empathize with the referent of the subject; it is next easiest for the speaker to empathize with the referent of the object...

It is nearly impossible for the speaker to empathize with the referent of the by-passive agent;

   E (Subject) ⟩ E (Object) ⟩ . . . ⟩ E (By-Agentive)

(15) Hearer-Honorific Principle; Place the second person pronoun at the list-initial position.

 E.g. a. You and John can work this out...

   b. ?John and you can work this out ...

(16) Extraction of NP out of a Larger NP; An Np can be extracted out of a larger Np that contains it only

if the rest of the NP can be interpreted as specifying a property of the smaller NP.

E.g. a. I forgot the name of that man. cf. NAME (that man)

    b. Who did you forget the name of?

    c. I bought a picture of Chairman Mao. PICTURE (Chairman Mao

    d. Who did you buy a picture of?

    e. I met a man with a telescope. *TELESCOPE (a man)

    f. *Who did you meet a man with?

       (In this universe, casual possessors of objects do not constitute the latter's properties)

(17)Who's She? The Cat's Mother? Don't use a third person pronoun within a hearing distance of its referent.

Reason; The third person reference would have the effect of excluding its referent from the conversation. Use of resumptive pronouns by the same speaker (e.g., Joh...he...) or in a sequence of coherent conversation is allowable.

IV) CONCLUSION

In this article, I have addressed myself to Rules of derived Constituent structures created by transformational grammar and Functional Syntax. So, I outlined some of the formal rules of syntactic component of an explicit grammar.

It seems to me that there is no way of describing or defining a given language without invoking the notion of linguistic rules. If it is true, it is clearly important, since by investigating the nature and variety of linguistic rules we may be able to provide quite detailed evidence about points of comparison between human language and other systems.

Linguistic rules are not just the isolated and scattered maxims we memorized at school; They combine with each other to form a system — a grammar — which gives an explicit and exhaustive description of every sentence which goes to make up a language.

In this article, I have dealt with some rules of Transformational and Functional syntax.
They can be summarized as the followings;

(1) Rules of transformational Grammar

    1. bounding theory

    2. government theory

    3. ϕ – theory

    4. Move α – theory

    5. binding and control theory

    6. generative semantics and phonological For, logical Form;

(2) Functional syntax.

    1. Discourse concepts and discourse constraints

    2. Discourse Deletion

3. Lexical and contextual meaning
4. Embedding and juxtaposition
5. Parallel Interpretation.

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실질 변형문법과 기능구조 이론

이 논문은 1981 년도 Chomsky 교수와 Kuno 교수의 강의 및 그 자료에 의해서 작성한 것이다. Transformational Grammak 와 Functional Syntax 는 현대 언어학의 이대 주류라고 할 수 있고, Chomsky 교수와 Kuno 교수는 그 저조격이라 할 수 있다.

현대 언어학 연구에 구조론이 의미론이나 음운론보다 우위에 있다는 것은 구조에 의존하는 음운이나 의미규칙은 있어도 구조규칙이 음운이나 의미에 천한 사실에 의존하지는 않는다는 뜻인데, 의미론이나, 음운론을 연구하는 데에는 반드시 구조규칙을 알아야 하는 것은 당연한 상식으로 되고 있다. 따라서 언어학을 하는 분은 누구나, Syntax, Semantics, Phonology 등을 하는 분은 물론 언어교육, 사회언어학, 언어심리등 각분야에 반드시 변형문법과 기능구조이론을 하지 않고는 안 되는 상황에 처해있다.

80 년대에 접어들면서 언어학분야는 혁신적인 변혁의 시기라고 할수 있는데 지금까지 관념적으로 다루었던 언어학연구가 여러 가지 새로운 theory 에 의하여 언어를 분석, 평가, 종합하는 새로운 영역을 형성하게 되었다. 언어학의 원리, 연구방향등이 70 년대와는 판이하게 다른 방향으로 전개시키면서 여러 가지 새로운 용어, 기호등을 사용함으로 syntax 분야는 물론 Phonology, Semantics 와 언어교육, 사회언어학, 언어심리학등 각 분야가 그 새로운 방법과 기호, 용어등을 사용하여 연구함으로 실로 언어학의 일대 변혁이라 할수 있다.
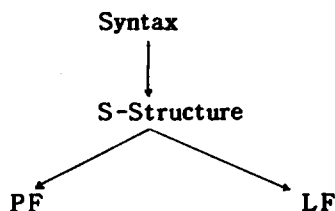
이와 같은 새로운 원리를 참고하여 극히 기본적인 이론만을 본 논문에서는 다루었다.

간단히 요약하면 ;

1 변형문법

과거에 기본적인 표면구조에서 내면구조를 변형원리에 의해서 분석했던 단순한 방법을 탈피하여, 지금은 언어 표면을 Phonological form(Surface Structure) 와 Logical form 으로 구분하고 이것을 Move α-theory 에 의하여 S-Structure 로 분석하고 다시 D-Structure 로 분석하는 것이다.

즉 Move α-theory 에 의하여 S-Structure 와 관여된 D-Structure 를 생성하는 것이다. 도표로 요약하면 다음과 같다.

```
              Syntax
                │
                ↓
          S-Structure
             ╱      ╲
          ╱            ╲
       PF                LF
```

이와같은 원리를 생성하는데 필요한 theory 를 몇개 적어보면 다음과 같다.

1) bounding theory

2) government theory

3) ϕ-theory

4) Move α-theory

5) binding theory

6) case theory

7) cotrol theoty

2. 기능구조이론

언어 각 요소의 의사전달 기능에 중점을 두고 첨가해서 언어구조의 관계에 주안점을 두어 D-Structure 를 자료에 의하여 생성하는 것이다.

이와 같은 상황에 필요한 몇개의 자료를 적어보면 다음과 같은 것이 있다.

1) Parallel Interpretation

2) Center Embedding and Conjuction Juxtaposition

3) Pronominalization and Reflexivization

4) Direct-Discourse Perspective

5) Empaty Perspective

6) Functional Sentence Perspective (theme/rheme, old/new Predictable/unpredic table, activated/inactivated, nonfocus/focus, etc)

7) Island Constraints, Subjacency, Specified Subject Condition, Tensed S condition

8) Extraction from Picture Nouns

9) Wh-clefting and it-clefting Super-Equi NP Deletion

10) Gapping

11) Vp Deletion

12) Principles of Discourse Deletion

13) Questions and Answers