Although it would be impossible to render an exact accounting of the notions that other theorists' works have produced in my mind, I do wish at the outset to disclaim any pretense of independence from influence or great originality in the general statements I plan to make here. There is no question in my mind but that everything I read changes my notions in some respect, and you will certainly recognize in my statements many of the ideas prevalent in the various so-called post-Chomskyan schools of today.

I am especially interested in the thoughts of a number of young linguists who have turned from the Chomskyan belief in an interpretive semantics to a belief in generative semantics. In this group are such theorists as Lakoff, Ross, Gruber, McCawley, Postal, and Chafe (an independent), to mention a few. I have also been introduced to some extremely productive questions by the literature of case grammar as pioneered by Fillmore. Since the influences are so general and pervasive, and since no one work of the men I am referring to can be singled out as having given me a particular idea, I will not try to provide bibliography, but I do wish to admit that my thoughts are not all sprung full-blown from my mind, without having first been put there from disparate reading.

It is one thing to acknowledge influence, however, and quite another to be a disciple. Despite the suggestions put in my mind over recent years, the particular solution to a given problem has usually seemed to me to be quite distinct from that suggested by other theorists, and the theories I hold are based on the answers that have come to me as I go along constantly seeking an effective metatheory to apply in my analysis of linguistic data. It might not be far from the truth either to say that other writers who have influenced me would be shocked at the twists their thoughts have been given in my unconscious reworking of them.

Having amply acknowledged the influence of the Zeitgeist on me, I must now get into the subjects I have set out to discuss. To further restrict areas of discussion, let me differentiate here between language as one experiences it and language as a system and mental process. Although psychological and sociological factors are very important aspects of the total linguistic experience, it is the premise of this paper that such factors can be screened out in order to discover certain otherwise obscured generalities about the internal structure of a language. In other words, for my purposes here semantics embraces only the systems of interrelated meanings that underlie the sentences of language; it does not, for example, concern questions as to whether a sentence in a given social context has a special meaning not revealed
by the sum of its parts without contextual assistance from the social surrounding. Linguistic context is the only context within which meanings are to be contrasted. This is not a prejudice against socially oriented semantic studies, but merely a statement of the domain of this study.

I must further clarify that my concentrating exclusively on problems of deep structure is no intended denial that studies of surface structures are needed and worthwhile. The truth is, in fact, that surface structure is fascinating, and will become more so as we gradually learn more about deep structure. But that is the point -- surface structure is better understood when deep structure is understood.

We may conclude these preliminary remarks simply by stating that all references to meaning below and all grammatical explanations are meant to refer to general, inner, social context-free semantic and grammatical elements.

It has long been an interesting question to what degree language and thought are interrelated. Since Aristotle there have been numerous attempts either to prove logic against language or language against logic. What seems to me to be one of the cul de sacs of all such efforts is one of the characteristics I wish to discuss today -- the fact that all efforts to construct the so-called perfectly logical sentence in ordinary language are frustrated by two phenomena: (1) that no matter how carefully chosen one's words are, a sentence in the surface structure of a natural language is never either elemental or logically unambiguous, and (2) that neither human discourse nor articulated thought is possible in such a one-dimensional fashion, since the human mind is too quick and too easily bored to allow the matter of thoughts to be reduced to bite-sized subjects and predicates. Thus the logicians have been thwarted.

The irony here is that the evidence of internal language structure supports the assumption that a subject-predicate system of verbal reasoning is a universal of human culture, and that despite the fact that the mind refuses to slow down to a snail's pace and run through these steps at the speed of articulated sound, these steps must be run through nevertheless. One of the remarkable facts about language that recent studies of deep structure reveal is that a highly stratified system of rules translates an extremely logical deep structure into an enormously abbreviated (and therefore ambiguous) surface structure, which is subject to the physical and physiological limitations on the speed of utterance.

For example, in a statement such as Jack and Jill raise and sell carrots, beans, and squash, the underlying sentence contains a subject-predicate assertion for each surface-structure VSO that the sentence contains, i.e. Jack raises carrots, Jack sells carrots, Jack raises beans, Jack sells beans, Jack raises squash, Jack sells squash, Jill raises carrots, Jill sells carrots, and so on. But even these subject-predicate assertions are multiply ambiguous, while at the same time they bear such limited information about the assertion they make that we must both seek further clarification by turning to the deep structure and ask how some of the absent information can be "plugged in"
to the incomplete statement.

For the first task we may discover that Jack sells carrots cannot be a complete sentence, since the verb sell implies a buyer. Furthermore, sell can be modified by either reluctantly or successfully (i.e. be reluctant to sell or be successful in selling), clearly two separate behavioral dimensions. The second question has been partly answered by the second example above. Further information is provided by adjoining a predication or comment at a specific node. In Figure 2 of Appendix One the brief remark The butler prepared, which is all but meaningless out of some lengthier discourse context, is clarified by the Comment -- for Harry to leave.

In the following examples from Appendix Two we see various types and degrees of predication or comment. (1a) shows the sentence the worker descended with the comment down the ladder, the same structure as examples (1b) and (1c). The motivation is the fact that descend cannot be understood without its being associated with go and down, although its additional content creates a redundancy that leads to the usual deletion of down at the surface level. Examples (2a), (2b), and (2c) show a short, information-restricted sentence with three progressive degrees of clarification. Note that transformational rules must be called upon to get from an adverbial to the adverb with -ly affixed, and that the so-called complement to eat lunch is transformationally derived from to + Topic, where S underlies Topic. In short, we see here the generalities my notation attempts to exploit.

By rewriting S as Topic + Comment (S) [see Appendix Three for some tentative rules], and Comment as Functive (Topic), I am able to categorize not only verbs but adjectives, prepositions, and conjunctions as well, as verbal elements in predicate-type structures. Only Verb is accompanied by a tense category. The Auxiliary of transformational grammar is not needed, since modals and "auxiliary verbs" are independent verbs in regard to the verbality category (requiring an implicit subject or Topic), although -- to be sure -- they are meaningless semantically unless accompanied by a full verb (one with semantic content). In addition to other Pre-Sentence elements, the generative process must scan a series of verbality options, which for English seem to be Modality, Anteriority (have), Actuality (do/be), and a number of categories based on the function categorization of a given full verb, such as performative/causeative, active/passive, and so on (see Appendix Three).

In regard to the non-verb members of the Functive category, they have some special characteristics, one of which they hold in common -- a lack of specified tense. The Case (prepositional) and Nexus (conjunctural) subcategories have in common that they usually permit the adjunction of a Comment to a sentence which is not necessarily nominalized transformationally beforehand in the way that would be obligatory before a verb would be permitted to follow.

The Case (or prepositional) category joins a preceding sentence to a following Topic, which is often a place-marker for an underlying sentence. This Topic is not an object, however. Even though the Case
morpheme has the effect of verbing the Topic on its left, it does so in an inverted manner that also verbs the Topic on the right. In example 3 of Appendix Two we see a sentence I am able to go with Comment to + I go, which to illustrate my contention that the second Comment is also verbed by the Case morpheme to I shall somewhat violently paraphrase as Since I am unrestricted, my going is permitted. (Note, also, in Figure 3 of Appendix One the complicated sentence structure that underlies the surface place-marker calculable [which has traditionally been dismissed as a lexical adjective], and in Figure 1 -- which offers a less abbreviated tree showing the optional and/or obligatory structures that underlie a given surface sentence.)

This has been a mere survey of an extremely complicated matter, and I do feel I have scarcely introduced some salient details. I think my probings into the obscure corners of deep structure have provided me with some valuable insights, but I believe the great discoveries are still ahead. To end on a cliche, every sentence of surface language like the out-jetting portion of an iceberg is very irregular in form and deceptively gives a false appearance of simply floating along at the surface rather than supported by an extremely broad and massive base.
APPENDIX ONE

Fig. 1a

Fig. 1b
Fig. 1d

Fig. 2
The risk is able to be calculated by someone. / The risk is calculable.

Fig. 4
APPENDIX TWO

EXAMPLES

1a. The worker descended (down) the ladder.

1b. The worker went down the ladder.

1c. The worker climbed down the ladder.

2a. The worker climbed down the ladder quietly.
2b. The worker climbed down the ladder quietly at noon.

2c. The worker climbed down the ladder quietly at noon to eat lunch.

3a. I am able to go.
3b. I am not able to go./ I am unable to go./ I am not unable to go.

4. Harry killed John (with a gun)./ John was killed by Harry (with a gun)./ gunned
eetc.

5. I carry the chair to the table,
APPENDIX THREE
RULES OF THE BASE

S → Top + Com (S)
    (s)
Top → (D) N (Top)

Com + Functive [F] (Top)

Verb + Tense
− Pred

Case
− Nexus

Modal
− Anteriority
− Actuality

Verb → Performative/ Causative
− Proverb
− Resultative
− Activity

In addition to the many other choices necessary in the generation of the
sentence, such as ± NEGATIVE, ± INTERROGATIVE, etc., an option must be
taken on each of the following, although choice of a particular one may
make choice of another obligatory:

± Modality
± Anteriority
± Actuality
± Performative
± Causative
± Resultative
± Activity

ILLUSTRATION

They [will | would] [are | were] have [run | took | take] (a run) around the track
[can | could] [been] [do | did] [ran | took | did] [taking | doing]
[may | might] [do] [run | take | do] [running | taken]
[might | must] [done] [run | taken | done]