

Speculation on language universals has not always and everywhere been viewed as a fully respectable pastime for the scientific linguist. The writer recalls a Linguistic Institute lecture of not many summers ago in which it was announced that the only really secure generalization on language that linguists are prepared to make is that 'some members of some human communities have been observed to interact by means of vocal noises'. Times have changed, it is a pleasure to report, and this is partly because we now have clearer ideas about what linguistic theories are theories of, and partly because some linguists are willing to risk the danger of being dead wrong.

Scholars who have striven to uncover syntactic features common to all of the world's languages have generally addressed themselves to three intimately related but distinguishable orders of questions: (a) What are the formal and substantive universals of syntactic structure? (b) Is there a universal base, and, if so, what are its properties? (c) Are there any universally valid constraints on the ways in which deep structure representations of sentences are given expression in the surface structure?

Concerning formal universals we find such proposals as Chomsky's, that each grammar has a base component capable of characterizing the underlying syntactic structure of just the sentences in the language at hand and containing at least a set of transformation rules whose function is to map the underlying structures provided by the base component into structures more closely identifiable with phonetic descriptions of utterances in that language (Chomsky, 1965, pp. 27-30). A representative statement on substantive syntactic universals is Lyons' assertion (1966, pp. 211, 223) that every grammar requires such categories as Noun, Predicate, and Sentence, but that other grammatical categories and features may be differently arranged in different languages. And Bach (1965) has given reasons to believe that there is a universal set of transformations which each language draws from in its own way, and he has shown what such transformations might look like in the case of relative clause modification.

Discussions on the possibility of a universal base (as distinct from claims about universal constraints on the form of the base component) have mainly been concerned with whether the elements specified in the rules of a universal base—if there is one—are sequential or not. A common assumption is that the universal base specifies the needed syntactic relations, but the assignment of sequential order to the constituents of base structures is language specific. Appeals for sequence-free representations of the universal deep structure have been made by Halliday (1966), Tesnière (1959), and others. Lyons (1966, p. 227) recommends leaving for empirical investigation the question of the relationship between the

underlying representation and sequential order, and Bach (1965) has suggested that continued investigation of the syntactic rules of the world's languages may eventually provide reasons for assuming specific ordering relations in the rules of a universal base.

Greenberg's (1963) statistical studies of sequence patterns in selected groups of languages do not, it seems to me, shed any direct light on the issue at hand. They may be regarded as providing data which, when accompanied by an understanding of the nature of syntactic processes in the specific languages, may eventually lend comfort to some proposal or other on either the sequential properties of the base component or the universal constraints which govern the surface ordering of syntactically organized objects.

Findings which may be interpreted as suggesting answers to our third question are found in the 'markedness' studies of Greenberg (1966) and in the so-called implicational universals of Jakobson (1958). If such studies can be interpreted as making empirical assertions about the mapping of deep structures into surface structures, they may point to universal constraints of the following form: While the grammatical feature 'dual' is made use of in one way or another in all languages, only those languages which have some overt morpheme indicating 'plural' will have overt morphemes indicating 'dual'. The theory of implicational universals does not need to be interpreted, in other words, as a set of assertions on the character of possible deep structures in human languages and the ways in which they differ from one another.

The present essay is intended as a contribution to the study of formal and substantive syntactic universals. Questions of linear ordering are left untouched, or at least unresolved, and questions of markedness are viewed as presupposing structures having properties of the kind to be developed in these pages.

My paper will plead that the grammatical notion 'case' deserves a place in the base component of the grammar of every language. In the past, research on 'case' has amounted to an examination of the variety of semantic relationships which can hold between nouns and other portions of sentences; it has been considered equivalent to the study of semantic functions of inflectional affixes on nouns or the formal dependency relations which hold between specific nominal affixes and lexical-grammatical properties of neighboring elements; or it has been reduced to a statement of the morphophonemic reflexes of a set of underlying 'syntactic relations' which themselves are conceived independently of the notion of 'case'. I shall argue that valid insights on case relationships are missed in all these studies, and that what is needed is a conception of base structure in which case relationships are primitive terms of the

theory<sup>2</sup> and in which such concepts as 'subject' and 'direct object' are missing. The latter are regarded as proper only to the surface structure of some (but possibly not all) languages.

Two assumptions are essential to the development of the argument, assumptions that are, in fact, taken for granted by workers in the generative grammar tradition. The first of these is *the centrality of syntax*. There was a time when a typical linguistic grammar was a long and detailed account of the morphological structure of various classes of words, followed by a two- or three-page appendix called 'Syntax' which offered a handful of rules of thumb on how to 'use' the words described in the preceding sections—how to combine them into sentences.

In grammars where syntax is central, the forms of words are specified with respect to syntactic concepts, not the other way around. The modern grammarian, in other words, will describe the 'comparative construction' of a given language in the most global terms possible, and will then add to that a description of the morphophonemic consequences of choosing particular adjectives or quantifiers within this construction. This is altogether different from first describing the morphology of words like *taller* and *more* and then adding random observations on how these words show up in larger constructions.<sup>3</sup>

The second assumption I wish to make explicit is *the importance of covert categories*. Many recent and not-so-recent studies have convinced us of the relevance of grammatical properties lacking obvious 'morphemic' realizations but having a reality that can be observed on the basis of selectional constraints and transformational possibilities. We are constantly finding that grammatical features found in one language show up in some form or other in other languages as well, if we have the subtlety it takes to discover covert categories. Incidentally, I find it interesting that the concept 'covert category'—a concept which is making it possible to believe that at bottom all languages are essentially alike—was introduced most convincingly in the writings of Whorf, the man whose name

<sup>2</sup> Notational difficulties make it impossible to introduce 'case' as a true primitive as long as the phrase-structure model determines the form of the base rules. My claim is, then, that a designated set of case categories is provided for every language, with more or less specific syntactic, lexical, and semantic consequences, and that the attempt to restrict the notion of 'case' to the surface structure must fail.

<sup>3</sup> John R. Ross pointed out, during the symposium, that some syntactic processes seem to depend on (and therefore 'follow') particular lexical realizations of just such entities as the comparative forms of adjectives. Compared adjectives, in short, may be iterated, just as long as they have all been given identical surface realizations. One can say,

i. She became friendlier and friendlier.  
ii. She became more and more friendly.

but not

iii. \* She became friendlier and more friendly.

is most directly associated with the doctrine that deep-seated structural differences between languages determine the essentially noncomparable ways in which speakers of different languages deal with reality (see Whorf, 1965, pp. 69 ff.).

One example of a 'covert' grammatical distinction is the one to which traditional grammarians have attached the labels 'affectum' and 'effectum', in German 'affiziertes Objekt' and 'effiziertes Objekt'. The distinction, which is reportedly made overt in some languages, can be seen in Sentences 1 and 2.

1. John ruined the table.
2. John built the table.

Note that in one case the object is understood as existing antecedently to John's activities, while in the other case its existence resulted from John's activities.

Having depended so far on only 'introspective evidence', we might be inclined to say that the distinction is purely a semantic one, one which the grammar of English does not force us to deal with. Our ability to give distinct interpretations to the verb-object relation in these two sentences has no connection, we might feel, with a correct description of the specifically syntactical skills of a speaker of English.

The distinction does have syntactic relevance, however. The *effectum* object, for example, does not permit interrogation of the verb with *do to*, while the *affectum* object does. Thus one might relate Sentence 1, but not Sentence 2, to the question given in 3.

3. What did John do to the table?

Furthermore, while Sentence 1 has Sentence 4 as a paraphrase, Sentence 5 is not a paraphrase of Sentence 2.

4. What John did to the table was ruin it.
5. What John did to the table was build it.<sup>4</sup>

To give another example, note that both of the relationships in question may be seen in Sentence 6 but that only in one of the two senses is Sentence 6 a paraphrase of Sentence 7.

6. John paints nudes.
7. What John does to nudes is paint them.

There is polysemy in the direct object of 6, true, but the difference also

<sup>4</sup> This observation is due to Paul M. Postal.

lies in whether the objects John painted existed before or after he did the painting.

I am going to suggest below that there are many semantically relevant syntactic relationships involving nouns and the structures that contain them, that these relationships—like those seen in 1 and 2—are in large part covert but are nevertheless empirically discoverable, that they form a specific finite set, and that observations made about them will turn out to have considerable cross-linguistic validity. I shall refer to these as 'case' relationships.

### 1. Earlier Approaches to the Study of Case

Books written to introduce students to our discipline seldom fail to acquaint their readers with the 'wrong' ways of using particular case systems as universal models for language structure. Grammarians who accepted the case system of Latin or Greek as a valid framework for the linguistic expression of all human experience were very likely, we have been told, to spend a long time asking the wrong kinds of questions when they attempted to learn and describe Aleut or Thai. We have probably all enjoyed sneering, with Jespersen, at his favorite 'bad guy', Sonnenschein, who, unable to decide between Latin and Old English, allowed modern English *teach* to be described as either taking a dative and an accusative, because that was the pattern for Old English *tecan*, or as taking two accusatives, in the manner of Latin *doceo* and German *lehren* (Jespersen, 1924, p. 175).

Looking for one man's case system in another man's language is not, of course, a good example of the study of case. The approaches to the study of case that do need to be taken seriously are of several varieties. Many traditional studies have examined, in somewhat semantic terms, the various *uses* of case. More recent work has been directed toward the analysis of the *case systems* of given languages, under the assumptions suggested by the word 'system'. A great deal of research, early and late, has been devoted to an understanding of the *history* or *evolution* of case notions or of case morphemes. And lastly, the generative grammarians have for the most part viewed case markers as surface structure reflexes, introduced by rules, of various kinds of deep and surface syntactic relations.

#### 1.1 Case Uses

The standard handbooks of Greek and Latin typically devote much of their bulk to the classification and illustration of semantically differ-

ent relationships representable by given case forms. The subheadings of these classifications are most commonly of the form 'X of Y', where 'X' is the name of a particular case and 'Y' is the name for a particular 'use' of X. The reader will recall such terms as 'dative of separation', 'dative of possession', and so on.<sup>5</sup>

Apart from the fact that such studies do not start out from the point of view of the centrality of syntax, the major defects of these studies were (a) that the nominative was largely ignored and (b) that classificatory criteria which ought to have been kept distinct were often confused.

The neglect of the nominative in studies of case uses probably has several sources, one being the etymological meaning ('deviation') of the Greek term for case, *ptōsis*, which predisposed grammarians to limit the term only to the nonnominative cases. The most important reason for omitting the nominative in these studies, however, is the wrongly assumed clarity of the concept 'subject of the sentence'. Müller published a study of nominative and accusative case uses in Latin, in 1908, in which he devoted 170 or so pages to the accusative and somewhat less than one page to the nominative, explaining (1908, p. 1) that '*die beiden casus recti, der Nominativ und der Vokativ, sind bei dem Streite über die Kasustheorie nicht beteiligt. Im Nominativ steht das Subjekt, von dem der Satz etwas aussagt*'.

The role of the subject was so clear to Sweet that he claimed that the nominative was the only case where one could speak properly of a 'noun'. He viewed a sentence as a kind of predication on a given noun, and every nounlike element in a sentence other than the subject as a kind of derived adverb, a part of the predication.<sup>6</sup>

On a little reflection, however, it becomes obvious that semantic differences in the relationships between subjects and verbs are of exactly the same order and exhibit the same extent of variety as can be found for the other case. There is in principle no reason why the traditional studies of case uses fail to contain such classifications as 'nominative of personal agent', 'nominative of patient', 'nominative of beneficiary', 'nominative of affected person', and 'nominative of interested person' (or, possibly, 'ethical nominative') for such sentences as 8 to 12, respectively.

8. He hit the ball.
9. He received a blow.
10. He received a gift.
11. He loves her.
12. He has black hair.

<sup>5</sup>For an extensive description of this type, see Bennett (1914).

<sup>6</sup>Quoted in Jespersen (1924, p. 107).

The confusion of criteria in treatments of the uses of cases has been documented by de Groot (1956) in his study of the Latin genitive. Uses of cases are classified on syntactic grounds, as illustrated by the division of uses of the genitive according to whether the genitive noun is in construction with a noun, an adjective, or a verb; on historical grounds, as when the uses of the syncretistic Latin ablative case are divided into three classes, separative, locative, and instrumental; and on semantic grounds, in which there is a great deal of confusion between meanings that can properly be thought of as associated with the case forms of nouns, on the one hand, and meanings that properly reside in neighboring words.

De Groot's critical treatment of the traditional classification of Latin genitive case uses is particularly interesting from the point of view taken here, because in his 'simplification' of the picture he rejects as irrelevant certain phenomena which generative grammarians would insist definitely are of syntactic importance. He claims, for example, that the traditional studies confuse difference of *referents* with differences of case uses. Thus, to de Groot the traditional three senses of *statua Myronis* (the statue possessed by Myro—*genitivus possessivus*; statue sculpted by Myro—*genitivus subjectivus*; statue depicting Myro—genitive of represented subject), as well as the subjective and objective senses of *amor patris*, are differences in practical, not in linguistic, facts. From arguments such as this he is able to combine twelve of the classical 'uses' into one, which he then labels the 'proper genitive', asserting (1956, p. 35) that 'the proper genitive denotes, and consequently can be used to refer to, any thing-to-thing relation'. He ends by reducing the thirty traditional 'uses of the genitive' to eight,<sup>7</sup> of which two are rare enough to be left out of consideration, and a third, 'genitive of locality', is really limited to specific place names.

Benveniste (1962) replied to de Groot's analysis in the issue of *Lingua* that was dedicated to de Groot. There he proposes still further simplifi-

<sup>7</sup>From de Groot (1956, p. 30):

- I. adjunct to a noun
  - A. proper genitive, *eloquentia hominis*
  - B. genitive of quality, *homo magnae eloquentiae*
- II. adjunct to a substantival
  - C. genitive of the set of persons, *reliqui peditum*
- III. conjunct ('complement') of a copula
  - D. genitive of the type of person, *sapientis est aperte odisse*
- IV. adjunct to a verb
  - E. genitive of purpose, *Aegyptum proficiscitur cognoscende antiquitatis*
  - F. genitive of locality, *Romae consules creabantur*
- IVa. adjunct to a present participle
  - G. genitive with a present participle, *laboris fugiens*
  - V. genitive of exclamation, *mercimoni lepidi*

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cations of the classification. Noting that de Groot's 'genitive of locality' applies only to proper place names, that is, that it occurs only with place names having *-o-* and *-ā-* stems, in complementary distribution with the ablative, Benveniste wisely suggests that this is something that should be catalogued as a fact about place names, not as a fact about uses of the genitive case. Benveniste's conclusions on the remaining genitive constructions is quite congenial to the generative grammarian's position. He proposes that the so-called proper genitive basically results from the process of converting a sentence into a nominal. The distinction of meaning between 'genitivus subjectivus' and 'genitivus objectivus' constructions merely reflects the difference between situations in which the genitive noun is an original subject and those where it is an original object, the genitive representing a kind of neutralization of the nominative/accusative distinction found in the underlying sentences.<sup>8</sup>

At least from the two mentioned studies of uses of the Latin genitive, it would appear (a) that some case uses are purely irregular, requiring as their explanation a statement of the idiosyncratic grammatical requirements of specific lexical items, and (b) that some semantic differences are accounted for independently of assigning 'meanings' to cases, either by recognizing meaning differences in 'governing' words or by noting meaning differences in different underlying sentences. The suggestion that one can find clear special meanings associated with surface cases fails to receive strong support from these studies.

### 1.2 Case Systems

There are reasonable objections to approaching the case system of one language from the point of view of the surface case system of another (for example, Classical Latin) by merely checking off the ways in which a given case relation in the chosen standard is given expression in the language under observation. An acceptable alternative, apparently, is the inverse of this process: one identifies case morphemes in the new language within the system of noun inflection and then relates each of these to traditional or 'standard' case notions. To take just one recent example, Redden (1966) finds five case indices in Walapai (four suffixes and zero) and identifies each of these with terms taken from the tradition

<sup>8</sup>It must be said, however, that Benveniste's desentential interpretation is diachronic rather than synchronic, for he goes on to explain that it is an analogy from these basic verbal sources that new genitive relations are created. From *ludus pueri* and *risus pueri*, where the relation to *ludit* and *ridet* is fairly transparent, the pattern was extended to include *somnus pueri*, *mos pueri*, and finally *liber pueri*. The generative grammarian may be inclined to seek synchronic verbal connections—possibly through positing abstract entities never realized as verbs—for these other genitives too. (See Benveniste, 1962, p. 17.)

of case studies: *-l* is nominative, *-Ø* is accusative, *-k* is allative/adessive, *-l* is illative/inessive, and *-m* is ablative/abessive. Under each of these headings the author adds information about those uses of each case form that may not be deducible from the labels themselves. Nominative, for example, occurs only once in a simple sentence—coordinate conjunction of subject nouns requires use of the *-m* suffix on all the extra nouns introduced; accusative is used with some noun tokens which would not be considered direct objects in English; allative/adessive has a partitive function; and ablative/abessive combines ablative, instrumental, and comitative functions.

In a study of this type, since what is at hand is the surface structure of the inflection system of Walapai nouns, the descriptive task is to identify the surface case forms that are distinct from each other in the language and to associate 'case functions' with each of these. What needs to be emphasized is (a) that such a study does not present directly available answers to such questions as 'How is the indirect object expressed in this language?' (for example, the system of possible case functions is not called on to provide a descriptive framework), and (b) that the functions or uses themselves are not taken as primary terms in the description (for example, the various 'functions' of the 'ablative/abessive' suffix *-m* are not interpreted as giving evidence that several distinct cases merely happen to be homophonous).<sup>9</sup>

One approach to the study of case systems, then, is to restrict oneself to a morphological description of nouns and to impose no constraints on the ways in which the case morphemes can be identified with their meanings or functions. This is distinct from studies of case systems which attempt to find a unified meaning for each case. An example of the latter approach is found in the now discredited 'localistic' view of the cases in Indo-European, by which dative is 'the case of rest', accusative 'the case of movement to', and genitive 'the case of movement from'.<sup>10</sup> And recent attempts to capture single comprehensive 'meanings' of the cases have suffered from the vagueness and circularity expected of any attempt to find semantic characterizations of surface-structure phenomena.<sup>11</sup>

<sup>9</sup> These remarks are not intended to be critical of Redden's study. Indeed, in the absence of a universal theory of case relationships there is no theoretically justified alternative to this approach.

<sup>10</sup> This interpretation, discussed briefly in Jespersen (1924, p. 186), appears to date back to the Byzantine grammarian Maxime Planude.

<sup>11</sup> As an illustration of this last point, take Gonda's claim (1962, p. 147) that the Vedic dative is called for whenever a noun is used to refer to the 'object in view'. The vacuity of this statement is seen in his interpretation of

*vātāya kapilā vidyut* (Patanjali)  
'a reddish lightning signifies wind'

as 'the lightning has, so to say, wind in view'.

The well-known studies of Hjelmslev (1935, 1937) and Jakobson (1936) are attempts not only to uncover unified meanings of each of the cases, but also to show that these meanings themselves form a coherent system by their decomposability into distinctive oppositions. The possibility of vagueness is, of course, increased inasmuch as the number of oppositions is less than the number of cases.<sup>12</sup>

The difficulties in discovering a unified meaning for each of the cases in a case system have led to the alternative view that *all but one* of the cases can be given more or less specific meanings, the meaning of the residual case being left open. This residual case can either have whatever relation to the rest of the sentence is required by the meanings of the neighboring words, or it can serve any purely caselike function not pre-empted by the other cases. Bennett tells us that Goedicke explained the accusative as 'the case used for those functions not fulfilled by the other cases'. The fact that Bennett, following Whitney, ridiculed this view on the grounds that *any* case could be so described suggests that Goedicke's remark must not have been very clearly expressed.<sup>13</sup> A different approach is taken by Diver (1964), who assigns the 'leftover' function not to a particular case, as such, but to whatever case or cases are not required for a given realization of what he calls the 'agency system'. Briefly, and ignoring his treatment of passive sentences, Diver's analysis is this: A verb can have one, two, or three nouns (or noun phrases) associated with it, corresponding generally to the intransitive, normal transitive, and transitive indirect object sentence types, respectively. In a three-noun sentence, the nouns are nominative, dative, and accusative, the nominative being the case of the agent and the accusative the case of the patient; the dative, the 'residue' case, is capable of expressing any notion compatible with the meaning of the remainder of the sentence. The function of the dative in a three-noun sentence, in other words, is 'deduced' from the context; it is not present as one of a number of possible 'meanings' of the dative case.<sup>14</sup> In two-noun sentences, one of the nouns is nominative and the other either dative or accusative, but typically accusative. The nominative here is the case of the agent, but this time

<sup>12</sup> See, in this regard, the brief critical remarks of A. H. Kuipers (1962, p. 231).

<sup>13</sup> Bennett (1914, p. 195, fn. 1). I have not yet had access to the Goedicke original.

<sup>14</sup> The following is from Diver, 1964, p. 181:

In the sentence *senatus imperium mihi dedit* 'the senate gave me supreme power', the Nominative, with the syntactic meaning of Agent, indicates the giver; the Accusative, with the syntactic meaning of Patient, indicates the gift. The question is: Does the Dative itself indicate the recipient or merely that the attached word is neither the giver nor the gift?

Diver makes the latter choice. In particular, he states that 'knowing that *mihi*, in the Dative, can be neither the Agent (the giver) nor the Patient (the gift), we deduce that it is the recipient'.

the accusative (or the dative, whichever occurs) is the *residue* case. In a two-noun sentence, in other words, the accusative is not limited to the meaning of patient; it can express any number of other meanings as well. And, since it no longer contrasts with dative, it can be replaced by a dative. The choice between dative and accusative in two-noun sentences, since it is not semantically relevant, is subject to random kinds of free and conditioned variation.

Carrying the argument through, the noun found in a one-noun sentence can express any meaning relationship with the verb. The noun, though most frequently nominative, may be accusative or dative, but the choice is not based on meanings associated with these cases. When the noun is nominative its 'syntactic meaning' may be that of agent, patient, or anything else.

The inadequacy of Diver's treatment is clear. In the first place, it seems unlikely that, as used in his paper, the notions agent and patient are in any sense satisfactory semantic primitives. To agree that *imperium* in *senatus imperium mihi dedit* is the patient is nothing more than to agree to say the word 'patient' on seeing an accusative form in a three-noun sentence. For many of Diver's examples, his argument would have been every bit as convincing if he had said that an unvarying function is performed by the dative, but the role of the accusative depends on such matters as the lexical meaning of the verb. Furthermore, the 'couple of dozen verbs' which appear in two-noun sentences and which exhibit some kind of semantic correlation involving the supposedly non-significant choice of accusative or dative should probably not be set aside as unimportant exceptions.

Diver's proposal may be thought of as an attempt to identify the semantic contribution of cases seen as syntagmatically identified entities, while the positing of distinctive oppositions, in the manner of Hjelmslev and Jakobson, is an attempt to see the functioning of cases from the point of view of the concept of paradigmatic contrast. The latter view has been criticized by Kuryłowicz (1960, pp. 134, 141). The apparent contrast seen in Polish and Russian between accusative and genitive (partitive) direct object, as between 13 and 14

13. *Daj nam chleb*. 'Give us the bread!'

14. *Daj nam chleba*. 'Give us some bread!'

is not a difference in the syntactic function of the object nouns relative to the verb, but is rather a difference which falls into that area of syntax that deals with the effect of the choice of article, in languages having articles, on the semantic content of the associated noun. The fact that in Russian the difference is reflected as a difference in noun inflection does

not alone determine its character as a part of the case system proper of the language.

The vertical contrast between locative and accusative nouns after locative/directional prepositions, as in 15 and 16

15. *On прыгает на stole*. 'He jumps (up and down) on the table.'

16. *On прыгает на stol*. 'He jumps onto the table.'

is a difference that would be discussed in transformational grammar terms as involving a distinction between prepositional phrases which are inside and those which are outside the verb phrase constituent. That is, a locative prepositional phrase which occurs outside the constituent VP is one which indicates the place where the action described by the VP takes place. A locative prepositional phrase inside the VP is a complement to the verb. Inside a VP the difference between the locative and directional senses is entirely dependent on the associated verb; outside the VP the sense is always locative.

Kuryłowicz discussed 15 and 16 in essentially the same terms. To him the directional phrase *na stol* is 'more central' to the verb than the locative phrase *na stole*. An apparent contrast appears just in case the same verb may appear sometimes with and sometimes without a locative (or directional) complement. There is thus no genuine paradigmatic contrast in such pairs as 13-14 or 15-16.

Kuryłowicz's own approach to the study of case systems brings another order of grammatical fact into consideration: sentence relatedness. Cases, in his view, form a network of relationships mediated by such grammatical processes as the passive transformation. The distinction between nominative and accusative, for example, is a reflection in the case system of the more basic distinction between passive and active sentences. In his terms, *hostis occiditur* becomes the predicate *hostem occidit*, the primary change from *occiditur* to *occidit* bringing with it the concomitant change from *hostis* to *hostem*.

Nominalizations of sentences have the effect of relating both accusative and nominative to the genitive, for the former two are neutralized under conversion to genitive, as illustrated by the change from *plebs secedit* to *secessio plebis* (genitive *subjectivus*) as opposed to the change from *hostem occidere* to *occisio hostis* (genitive *objectivus*).

The relationship between nominative and accusative, then, is a reflex of diathesis; the relationship of these two to genitive is mediated through the process of constructing deverbal nouns. The remaining cases—dative, ablative, instrumental, and locative—enter the network of relationships in that, secondarily to their functions as adverbials, they each provide variants of the accusative with certain verbs. That is, there

are verbs that 'govern' the ablative (for example, *utor*), rather than the accusative for their 'direct objects'.<sup>15</sup>

### 1.3 Case Histories

In addition to studies of case uses and interpretations of the cases in a given language as elements of a coherent system, the literature also contains many historical studies of cases; and these, too, are of various kinds. Some workers have sought to discover the original meanings of the cases of a language or family of languages, while others have sought to trace case morphemes back to other kinds of morphemes—either syntactic function words or some kind of derivational morphemes. Still others have seen in the history of one case system a case system of a different type—with or without assumptions concerning the 'essential primitivity' of the earlier type.

A very common assumption among linguistic historians has been that case affixes are traceable back to noncase notions. The form which eventually became the Indo-European case ending representing nominative singular masculine, that is, \*-s, has been interpreted as the demonstrative \*so which had been converted into a suffix indicating a definite subject; and the \*so in turn is believed by some to have originated as a Proto-Indo-Hittite sentence connective (Lane, 1951). The same form has also been interpreted as a derivational morpheme indicating a specific individual directly involved in an activity, contrasting with a different derivational affix \*-m indicating a nonactive object or the product of an action.<sup>16</sup> Scholars who can rest with the latter view are those who do not require of themselves the belief that 'synthetic' languages necessarily have antecedent 'analytic' stages.<sup>17</sup>

<sup>15</sup> Kuryłowicz (1960, pp. 138-139, 144-147, 150). Also see Kuryłowicz (1964, pp. 179-181). Somewhat similar interpretations of the connections between case and diathesis are found in Heger (1966).

<sup>16</sup> See, for example, the statement in Lehmann, 1958, p. 190.

<sup>17</sup> The impression is sometimes given that the identification of the etymon of a case affix brings with it an account of the intellectual evolution of the speakers of the language in question. If the interpretation of \*-m and \*-s as derivational morphemes is correct, it does not follow that one has discovered, in the transition from the earliest function of these elements to their later clear caselike uses, any kind of 'abstraction' process or tendency to pass from 'concrete' to 'relational' modes of thought. Our methods of reconstruction should certainly make it possible to detect basic (that is, deep-structure) linguistic evolution if it is there to discover, but the etymology of surface-structure morphemes should not lead to assumptions about deep typological differences. What I mean is that the underlying case structures of Proto-Indo-European may have been just as precisely organized as those of any of the daughter languages, and that the changes that have occurred may have been entirely a matter of morphophonemic detail. From the preponderance of (derived) active nouns in subject position, one generation may have 'reinterpreted' the suffix as a marker of human subject and

A second kind of speculation on historical changes within case systems traces case systems of one kind back to case systems of another kind. Of particular interest here is the suggestion that the Indo-European case systems point back to an original 'ergative' system. Case typologies will be discussed in slightly greater detail below, but briefly we can characterize an 'ergative' system as one which assigns one case (the ergative) to the subject of a transitive verb and another to both the subject of an intransitive verb and the object of a transitive verb. An 'accusative' system, on the other hand, is one which assigns one case to the subject of either transitive or intransitive verbs and another (the accusative) to the object of a transitive verb. A common feature of ergative systems is that the 'genitive' form is the same as the ergative (or, put differently, that the ergative case has a 'genitive' function).

The connection of Indo-European \*-s with animateness (the subject of a transitive verb is typically animate), the original identity of the nominative singular \*-s with the genitive ending, and the identity of the neuter ending \*-m with the masculine accusative form have led many investigators to the conclusion that our linguistic ancestors were speakers of an 'ergative' language.<sup>18</sup> It will be suggested below that, if such a change has taken place, it is a change which involves the notion 'subject'.

### 1.4 Case in Current Generative Grammar

A hitherto largely unquestioned assumption about case in the writings of generative grammarians has been made explicit by Lyons (1966, p. 218): "case" (in the languages in which the category is to be found) is not present in "deep structure" at all, but is merely the inflexional "realization" of particular syntactic relationships'. The syntactic relationships in question may in fact be relationships that are defined only in the surface structure, as when the surface subject of a sentence (destined to assume, say, a 'nominative' form) has appeared as the result of the application of the passive transformation, or when the 'genitive' marker is

a later generation may have reinterpreted it as merely a marker for the subjectival use of a particular set of words—to state the possibilities in the most simple-minded way. The change, in short, may well have been entirely in the economies of bringing to the surface underlying structural features which themselves underwent no change whatever.

<sup>18</sup> See particularly Uhlenbeck (1901), where the \*-m ending was identified as a subject marker and the \*-s as the agent marker in passive sentences (a common interpretation of 'ergative' systems), and Vaillant (1936). Lehmann (1958, p. 190) finds the arguments unconvincing, noting for example that evidence of an 'ergative' ending cannot be found in plural nouns or in *ā* stem feminines.

introduced as an accompaniment to a nominalization transformation. One of Chomsky's few remarks on case occurs in a discussion of the peripheral nature of stylistic inversions; although case forms are assigned to English pronouns relatively late in the grammar, determined largely by surface-structure position, the stylistic inversion rules are later still. In this way it becomes possible to account for such forms as *him I like*; the shift of *him* to the front of the sentence must follow the assignment of case forms to the pronouns (see Chomsky, 1965, pp. 221 f.).

It seems to me that the discussion of case could be seen in a somewhat better perspective if the assignment of case forms were viewed as exactly analogous to the rules for assigning prepositions in English, or postpositions in Japanese.<sup>19</sup> There are languages which use case forms quite extensively, and the assumption that the case forms of nouns can be assigned in straightforward ways on the basis of simply defined syntactic relations seems to be based too much on the situation with English pronouns.

Prepositions in English—or the absence of a preposition before a noun phrase, which may be treated as corresponding to a zero or unmarked case affix—are selected on the basis of several types of structural features, and in ways that are exactly analogous to those which determine particular case forms in a language like Latin: identity as (surface) subject or object, occurrence after particular verbs, occurrence in construction with particular nouns, occurrence in particular constructions, and so on. The only difficulties in thinking of these two processes as analogous are that even the most elaborate case languages may also have combinations of, say, prepositions with case forms, and that some prepositions have independent semantic content. The first of these difficulties disappears if, after accepting the fact that the conditions for choosing prepositions are basically of the same type as those for choosing case forms, we merely agree that the determining conditions may simultaneously determine a preposition *and* a case form. The second difficulty means merely that a correct account will allow certain options in the choice of prepositions in some contexts, and that these choices have semantic consequences. Analogous devices are provided by the 'true' case languages, too, for example by having alternative case choices in otherwise identical constructions, or by having semantically functioning prepositions or postpositions.

The syntactic relations that are involved in the selection of case

<sup>19</sup> The suggestion is of course not novel. According to Hjelmslev, the first scholar to show a connection between prepositions and cases was A.-F. Bernhardt, in *Anfangsgründe der Sprachwissenschaft* (Berlin, 1805); see Hjelmslev, 1935, p. 24.

forms (prepositions, affixes, and so forth) are, in practice, of two types, and we may call these 'pure' or 'configurational' relations, on the one hand, and 'labeled' or 'mediated' relations on the other hand.<sup>20</sup> 'Pure' relations are relations between grammatical constituents expressible in terms of (immediate) domination. Thus, the notion 'subject' can be identified as the relation between an NP and an immediately dominating S, while the notion 'direct object' can be equated with the relation that holds between an NP and an immediately dominating VP. Where the relation 'subject of' is understood to hold between elements of the deep structure, one speaks of the deep-structure subject; where it is understood to hold between elements of the (prestylistic) surface structure, one speaks of the surface-structure subject. This distinction appears to correspond to the traditional one between 'logical subject' and 'grammatical subject'.

By 'labeled' relation I mean the relation of an NP to a sentence, or to a VP, which is mediated by a pseudocategory label such as Manner, Extent, Location, Agent.

It is clear that if all transformations which create surface subjects have the effect of attaching an NP directly to an S, under conditions which guarantee that no other NP is also directly subjoined to the same S, and if it always turns out that only one NP is subjoined to a VP in the prestylistic surface structure, then these two 'pure' relations are exactly what determine the most typical occurrences of the case categories 'nominative' and 'accusative' in languages of a certain type. For remaining case forms, the determination is either on the basis of idiosyncratic properties of specific governing words, or on the basis of a 'labeled' relation, as when the choice of *by* is determined by reference to the dominating category Extent in the extent phrase of sentences like 17.

<sup>20</sup> The distinction would be more accurately represented by the opposition 'relations' versus 'categories', because when a phrase-structure rule introduces a symbol like Manner or Extent—symbols which dominate manner adverbials and extent phrases—these symbols function, as far as the rest of the grammar is concerned, in exactly the same ways as such 'intentional' category symbols as S or NP. This fact has much more to do with the requirements of the phrase-structure model than with the 'categorical' character of the grammatical concepts involved. In an earlier paper I discussed the impossibility of capturing, in a base component of a grammar of the type presented in Chomsky (1965), both such information that *in a clumsy way* is a manner adverbial (and as such represents an instance of highly constrained lexical selection as well as a quite specific positional and co-occurrence potential which it shares with other manner adverbials) and that it is a prepositional phrase. See Fillmore (1966a).

The *intention* on the part of grammarians who have introduced such terms as Loc, Temp, Extent, and the like into their rules is to let these terms represent relations between the phrases they dominate and some other element of the sentence (that is, the VP as a whole); nobody, as far as I can tell, has actually wished these terms to be considered as representing distinct types of grammatical categories on the order of NP or preposition phrase.

17. He missed the target by two miles.

In my earlier paper (Fillmore, 1966) I pointed out that no semantically constant value is associated with the notion 'subject of' (unless it is possible to make sense of the expression 'the thing being talked about', and, if that can be done, to determine whether such a concept has any connection with the relation 'subject'), and that no semantically relevant relations reside in the surface subject relation which are not somewhere also expressible by 'labeled' relations. The conclusion I have drawn from this is that all semantically relevant syntactic relations between NP's and the structures which contain them must be of the 'labeled' type. The consequences of this decision include (a) the elimination of the category VP, and (b) the addition to some grammars of a rule, or system of rules, for creating 'subjects'. The relation 'subject', in other words, is now seen as exclusively a surface-structure phenomenon.

## 2. Some Preliminary Conclusions

I have suggested that there are reasons for questioning the deep-structure validity of the traditional division between subject and predicate, a division which is assumed by some to underlie the basic form of all sentences in all languages. The position I take seems to be in agreement with that of Tesnière (1959, pp. 103-105) who holds that the subject/predicate division is an importation into linguistic theory from formal logic of a concept which is not supported by the facts of language and, furthermore, that the division actually obscures the many structural parallels between 'subjects' and 'objects'. The kinds of observations that some scholars have made about surface differences between 'predicative' and 'determinative syntagms'<sup>21</sup> may be accepted without in any way believing that the subject/predicate division plays a part in the deep-structure syntactic relations among the constituents of sentences.

Once we have interpreted 'subject' as an aspect of the surface structure, claims about 'subjectless' sentences in languages which have superficial subjects in some sentences, or reports about languages which appear to lack entirely entities corresponding to the 'subjects' of our grammatical tradition, no longer need to be regarded as particularly disturbing. Unfortunately, there are both good and bad reasons for asserting that par-

<sup>21</sup> See, for example, Bazell (1949, esp. p. 8), where the difference is expressed in such terms as 'degrees of cohesion', 'liaison features' found within the predicate but not between subject and predicate.

ticular languages or particular sentences are 'subjectless', and it may be necessary to make clear just what I am claiming. A distinction must be drawn between *not having* a constituent which could properly be called 'subject', on the one hand, and *losing* such a constituent by anaphoric deletion, on the other hand.<sup>22</sup> Robins (1961), in his review of Tesnière (1959), accuses Tesnière of failing to isolate the subject from the rest of the sentence. To Robins, Tesnière's decision to allow the subject to be treated as merely a complement to the verb must be related to the fact that the subject is omissible in such languages as Latin. If it is true that the omissibility of subjects is what convinced Tesnière that they are subordinated to verbs, and if the nonomissibility in any language of the subject constituent would have persuaded him that there is a special status for 'subject' vis-à-vis 'predicate' in the underlying structure of sentences in all languages, then that, it seems to me, is a bad reason for coming up with what might be a correct analysis.

It seems best to have a place in linguistic theory for the operation of anaphoric processes, processes which have the effect of shortening, simplifying, de-stressing sentences which are partly identical to their neighbors (or which are partly 'understood'). It happens that English anaphoric processes make use of pronominalization, stress reduction, and also deletion, under conditions where other languages might get along exclusively with deletion.<sup>23</sup> Under some conditions, in languages of the latter type, the deleted element happens to be the 'subject'. The non-occurrence of subject nouns in some utterances in some languages is *not* by itself, in other words, a good argument against the universality of the subject/predicate division. There are better ones. Some of these have already been suggested, others are to appear shortly.

<sup>22</sup> The tagmemists in particular, because of their notation for 'optional' constituents, have had to come to grips with this distinction. A 'tagmemic formula' may be thought of as an attempt to present in a single statement a quasi-generative rule for producing a set of related sentences and the surface structure (short of free variation in word order) of these sentences. If the formulas for transitive and intransitive clauses are expressed as i and ii respectively:

- i.  $\pm$  Subj + Pred  $\pm$  Obj  $\pm$  Loc  $\pm$  Time
- ii.  $\pm$  Subj + Pred  $\pm$  Loc  $\pm$  Time

it is clear (a) that any clause containing just a Pred can satisfy either of these formulas, and (b) that the potential appearance of such constituents as Loc and Time is less relevant to the description of these clauses than is that of the constituent Obj. Pike draws a distinction, which cross-cuts the optional/obligatory distinction, between 'diagnostic' and 'nondiagnostic' elements of clauses; see, for example, Pike (1966, esp. Chapter 1, Clauses). Grimes, on the other hand, seems to suggest introducing the 'diagnostic' constituents obligatorily, allowing for their deletion under certain contextual or anaphoric conditions. See Grimes (1964, esp. p. 16 f.).

<sup>23</sup> For an extremely informative description of these processes in English, see Gleitman (1965) and Harris (1957, esp. Section 16).

By distinguishing between surface- and deep-structure case relationships, by interpreting the 'subject' and 'object' as aspects of the surface structure, and by viewing the specific phonetic shapes of nouns in actual utterances as determinable by many factors that are vastly variable in space and time, we have eliminated reasons for being surprised at the noncomparability of (surface) case systems. We find it partly possible to agree with Bennett when, after surveying a few representative nineteenth century case theories, he stated (1914, p. 3) that they erred in sharing the 'doubtful assumption . . . that all the cases must belong to a single scheme, as though parts of some consistent institution'. We need not follow him, however, in concluding that the only valid type of research into the cases is an inquiry into the earliest value of each case.

Greenberg has remarked that cases themselves cannot be compared across languages—two case systems may have different numbers of cases, the names of the cases may conceal functional differences—but that *case uses* may be expected to be comparable. He predicts, for instance, that the uses of cases will be 'substantially similar in frequency but differently combined in different languages' (1966, p. 98; see also p. 80). Greenberg's recommendations on the cross-linguistic study of case uses were presented in connection with the 'true' case languages, but it seems clear that if a 'dative of personal agent' in one language can be identified with an 'ablative of personal agent' in another language, then the 'personal agent' relationship between a noun and a verb ought also to be recognizable in the so-called caseless languages on exactly the same grounds. If, furthermore, it turns out that other grammatical facts can be associated with sentences containing the personal agent relationship, it would appear that the concepts underlying the study of case uses may have a greater linguistic significance than those involved in the description of surface case systems. These additional facts might include the identification of a limited set of nouns and a limited set of verbs capable of entering into this relationship, and whatever additional generalizations prove to be storable in terms of this classification. Higher level dependencies may be discovered, such as the limitation of benefactive phrases to sentences containing a personal agent relationship in their deep structure.

The question should now be asked, of course, whether we are justified in using the term *case* for the kind of remote syntactic-semantic relations that are at issue. There is among many scholars a strong feeling that the term should be used only where clear case morphemes are discoverable in the inflection of nouns. To Jespersen, it is wrong to speak of 'analytic' cases, even when there is no 'local' meaning in the preposition phrases, because cases are one thing and preposition-plus-object constructions are another (1924, p. 186). Jespersen's position is colored a little by his belief

that the caselessness of English represents a state of progress for which we ought to be grateful.<sup>24</sup>

Cassidy, in his 1937 appeal to rescue the word *case* from abuse, wrote (p. 244): "Case" will be properly used and will continue to have some meaning only if the association with inflection be fully recognized, and if stretching of the term to include other sorts of "formal" distinction be abandoned.' In a similar vein, Lehmann (1958) chides Hirt for suggesting that an awareness of cases had to precede the development of case endings—that there was, in other words, 'among the speakers of pre-Indo-European and Proto-Indo-European a disposition for cases' (p. 185). Lehmann continues (p. 185): 'We can account for Hirt's statement by the assumption that to him a case was a notional category, whether or not it was exemplified in a form. To us a particular case is non-existent unless it is represented by forms which contrast in a system with others.' The claim that syntactic relations of various types must exist before case endings could be introduced to give them expression would surely have gone unchallenged; what was offensive, apparently, was the use of the word *case*.

It seems to me that if there are recognizable intrasentence relationships of the types discussed in studies of case systems (whether they are reflected in case affixes or not), that if these same relationships can be shown to be comparable across languages, and that if there is some predictive or explanatory use to which assumptions concerning the universality of these relations can be put, then surely there can be no meaningful objection to using the word *case*, in a clearly understood deep-structure sense, to identify these relationships. The dispute on the term *case* loses its force in a linguistics which accepts the centrality of syntax.<sup>25</sup>

<sup>24</sup> Jespersen (1924, p. 179):

However far back we go, we nowhere find a case with only one well-defined function: in every language every case served different purposes, and the boundaries between these are far from being clear-cut. This, in connection with irregularities and inconsistencies in the formal elements characterizing the cases, serves to explain the numerous coalescences we witness in linguistic history ("syncretism") and the chaotic rules which even thus are to a great extent historically inexplicable. *If the English language has gone farther than the others in simplifying these rules, we should be devoutly grateful and not go out of our way to force it back into the disorder and complexity of centuries ago.* [Italics added.]

<sup>25</sup> The universality of case as a grammatical category is affirmed in Hjelmslev (1935, p. 1). In a recent study from a Jakobsonian point of view, Velten (1962) reveals enough of the historical continuity of 'synthetic' and 'analytic' cases to suggest that the linguist has no right to assign cases and prepositions to different 'chapters' of the study of grammar. The deep-structure notion of cases may be thought of as involving an extension of the synchronic concept of 'syncretism'. The usual synchronic sense of case syncretism assumes the form of a decision to posit a case contrast that may not be expressed overtly in most contexts as long as it appears overtly in 'one part of the system'. (See Newmark, 1962, p. 313.) Deep-structure cases may simply be