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, Predictor, 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 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.\footnote{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.}

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...
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 'effizientes Objekt' and 'effizientes 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 *affectum* object, for example, does not permit interrogation of the verb with *do to*, while the *effectum* 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.*

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 nodes.
7. What John does to nodes is paint them.

There is polysemy in the direct object of 6, true, but the difference also 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 Auletic or Thai. We have probably all enjoyed sneering, with Jespersen, at his favorite 'bad guys', 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.  

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, ἀπόσις, 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 Nominitiv und der Akkusativ, 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 noun-like element in a sentence other than the subject as a kind of derived adverb, a part of the predication.  

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.

*For an extensive description of this type, see Bennett (1914).

*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 noun 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 referent with differences of case uses. Thus, to de Groot the traditional three senses of status Myronis (the statue possessed by Myro—genitus in possessivi; statue sculpted by Myro—genitus subjectivus; statue depicting Myro—genitus 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. 55) 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, 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-
of case studies: 1 is nominative, 0 is accusative, 4 is allative/abessive, 6 is illative/inessive, and 7 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/abessive 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).

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’. 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.

It must be said, however, that Benveniste’s descriptental 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 puerti and statu puerti, where the relation to ludus and statum is fairly transparent, the pattern was extended to include sana puerti, mon puerti, and finally sana puerti. The descriptental interpretation may be inclined to seek synchronic verbal connections—possibly through postulating abstract entities never realized as verbs—for these other genitives too. (See Benveniste, 1962, p. 17.)

9 This interpretation, discussed briefly in Jespersen (1924, p. 150), appears to date back to the Byzantine grammarian Maxime Planude.
10 As an illustration of this last point, take Gonda’s claim (1982, 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 tālēya kapilā vuṣyat (Patañjali) as ‘the lightning has, so to say, wind in view’.

11 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.
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.12

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 adjoining words, or it can serve any purely caselike function not preempted by the other cases. Bennett tells us that Goedecke 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 Goedecke's remark must not have been very clearly expressed.13 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.14 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

12 See, in this regard, the brief critical remarks of A. H. Kuipers (1963, p. 231).
13 Bennett (1914, p. 395, n. 1). I have not yet had access to the Goedecke original.
14 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 agent of the action, while the Accusative, with the syntactic meaning of Patient, indicates the object. The question is: Does the Dative itself indicate the recipient or merely that the attached word is correctly given? For the Dative is the syntactic meaning of Patient, and 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 correctly given? For the Dative is the syntactic meaning of Patient, and 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 correctly given? For the Dative is the syntactic meaning of Patient, and the Accusative, with the syntactic meaning of Patient, indicates 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'.

13. Dajem chleb. 'Give us the bread!'
14. Dajem chleba. 'Give us some bread!'
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 prýgjaet na stole. 'He jumps (up and down) on the table.'
16. On prýgjaet na 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 15-16 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 occiditx becomes the predicate hostem occidit, the primary change from occiditx to occiditx 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 sedetx ad secessio plebitx (genitivus subjectivus) as opposed to the change from hostem occiditx adOccisione hostisx (genitivus objectivus).

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

are verbs that 'govern' the ablative (for example, nitor), rather than the accusative for their 'direct objects'.

1.5 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, *-o, 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. 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.

Kuryłowicz (1999, pp. 138-139, 144-147, 160). Also see Kuryłowicz (1964, pp. 179-181). Somewhat similar interpretations of the connections between case and diathesis are found in Hege (1900).

See, for example, the statement in Lehman, 1958, p. 190.

The impression is sometimes given that the identification of the etymology 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 functions of these elements to their later clear case-like 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 mythology of surface-structure morphemes should not lead us 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 perspective of (derived) active nouns in subject position, one generation may have ‘reinterpreted’ the suffix as a marker of human subject and