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Problems of Word Order Change in Selected Indo-European Languages

By

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CHAPTER I

INTRODUCTION

Although syntax has always been a relatively neglected area of Indo-European studies, it has in the past attracted the attention of some of the most prominent Indo-Europeanists. Berthold Delbrück, Jacob Wackernagel, Karl Brugmann, Hermann Hirt, Antoine Meillet, Ernst Kieckers, and Ferdinand Sommer are the most notable of the early scholars who wrote specifically on comparative-historical Indo-European syntax (as opposed to studies of the syntax of individual Indo-European languages). After this initial impulse, Indo-European syntactic studies have lain dormant until the recent past when studies of various aspects of IE syntax have been made by such scholars as Calvert Watkins, Hansjakob Seiler, Wolfgang Dressler, Paul Friedrich, and Winfred P. Lehmann.

Among historical linguists it has generally been assumed that syntax could be reconstructed in much the same manner as phonology or morphology. In some respects, however, the reconstruction of syntax is not on an equal footing with that of phonology and morphology. In phonological reconstruction, regular series of correspondences between the sounds of related languages are isolated. These correspondences are usually labelled with phonetic symbols or simple letters with an accepted range of phonetic

equivalences, and these phonetic symbols are further viewed as constituting the phonological system of the reconstructed language. The main corrective to, and guarantee of, the phonetic reality of the phonological systems one reconstructs is language typology (Jakobson 1958). In general, however, the Indo-European languages are so closely related and the phonetic correspondences are so well understood that often entire words can be reconstructed. Furthermore, although one cannot be certain about the exact phonetic shape of a reconstruct, one can be certain that a synchronically attested form is a phonetic descendant of some earlier form.

In as much as morphological categories receive direct phonetic expression, they can be (and have been) reconstructed with the same degree of certainty as the individual sounds involved. The reconstructibility of entire words and their inflections in Indo-European has tended to obscure some of the difficulties inherent in the reconstruction of morphology. The most obvious of these arise in attempts to reconstruct morphological categories for which there is no unambiguous overt phonetic expression.

Many earlier studies of Indo-European syntax have been primarily word based, since syntax was considered to be merely an appendage of morphology, and thus many syntactic investigations were reduced to observations about the use of surface cases or to speculation about their origin (for a modern instance, see Krahe 1972). In part, this was a reaction against the excesses of Schleicher. This approach to syntax had led to two apparently opposite conclusions. The first is that Indo-European syntax cannot be

reconstructed, while the second is that by reconstructing inflected forms of words one arrives at the syntax of the proto-language. In response to the second procedure one may state that although the syntax of case use and verbal morphology are important parts of Indo-European syntax, they are not sufficient to give an adequate notion of the structure of a sentence of any complexity in an attested Indo-European language, much less in a reconstructed language. In response to the first, one must state that it rests on two basic misconceptions. The first is that since there are no Indo-European texts (or even phrases other than a few poetic formulae, cf. R. Schmitt 1967) there can be no Indo-European syntax. C. Watkins (1964) and W. Dressler (1971) have both pointed out that this involves a confusion between langue and parole; that is, since we do not have access to Indo-European parole we can state nothing about Indo-European langue. A latter day proponent of this particular misapprehension is D. Lightfoot (1979), who denies the reconstructibility of syntax. This, I think, is the result of a long time misidentification on the part of generative syntacticians of Saussurean parole with performance and langue with competence (hence with deep structure). Now it is clear that nothing corresponding to the fairly complex notions of deep structure of contemporary generative syntax can be reconstructed at all (cf. Dressler 1969:70ff.). For example, I do not understand how it would be possible to argue in any meaningful way about the nature of deep syntactic representations in a reconstructed language. Discussions about such matters are based on two sets of observations: those derived from the

investigation (or production) of large numbers of sentences of different types, and those derived from general considerations about the nature of grammar, neither of which is appropriate to reconstructed surface syntactic patterns.

The most successful tactic of reconstruction used by the earlier scholars who have occupied themselves with Indo-European syntax, notably Delbrück, Wackernagel and Meillet, has been to project back in Indo-European times an attested synchronic state of some early Indo-European language. Delbrück, for instance, felt at one time that Indo-European syntax was in essence identical to that of the earliest Sanskrit prose (1878 *passim*), while Meillet (1937: 355ff.) believed that Homeric Greek best preserved the Indo-European state of affairs. The unstated assumption of both scholars is presumably that they thought that the evidence from the other Indo-European languages could be reconciled with the system each viewed as closest to Proto-Indo-European. Again, for these scholars, morphology was an integral part of syntax (or vice versa). On the other hand, Wackernagel's procedure in his classic article on the placement of enclitics in Indo-European (1892) was to show that one feature of word order was constant in a number of Indo-European languages of quite different word order types. Since there was no apparent synchronic justification for this placement of enclitics, it followed that this feature must be an inheritance from the parent language.

A methodological impasse was primarily responsible for the hiatus in the study of Indo-European syntax. The great early works

on Proto-Indo-European syntax were primarily descriptive, consisting of surveys of the principal constructions in the major Indo-European languages. The Neogrammarians had done virtually all that it was possible for them to do within the framework of their general theory of language and language change. Especially in syntax, their theory gave them no basis for regarding one construction or formation as older than another; if both were attested at the same period, both were usually reconstructed to Indo-European. Clear instances of this tendency are provided by Meillet's theories about Indo-European word order or by Delbrück's successive hypotheses to account for the placement of adpositions. This procedure led to the attitude that Indo-European was a kind of inventory of forms and constructions which could be arranged at will to produce the historically attested languages. Another consequence of this view of language as a collection of items, each of which could be studied in isolation, is that only the most primitive syntactic typology is possible. For the Neogrammarians, this took the form of a repartition of languages into agglutinative, inflectional, and isolating types. This atomism and implicit rejection of typology resulted in the neglect of earlier, more sophisticated work (e.g., Bergaigne 1875/8).

The neglect of syntax in Indo-European studies during the period from ca. 1930-1960 is paralleled by a lack of interest in syntax in linguistics as a whole during the same period. The recent resurgence of interest in Proto-Indo-European syntax seems to be the direct result of three factors: (a) the development of syntactic theory since 1957, (b) the development of the study of syntactic

universals (or quasi-universals, see especially Greenberg 1966), and (c) the full utilization of the syntactic evidence provided by Hittite. The first two factors have served to reemphasize the fact that it is a system of rules for producing sentences which is transmitted historically, and not the sentences themselves. The last has provided Indo-Europeanists with a large body of data in an archaic Indo-European language. Furthermore, this data is non-poetic (with a very few exceptions), and thus is not subject to a number of the special requirements of early Indo-European poetic style found in the Vedas and in Homer.

In spite of the neglect of other major areas of Indo-European syntax, the study of IE word order is now more than one hundred years old. Although Berthold Delbrück is usually regarded as the 'Father of Indo-European Syntax', and had published as early as 1878 a study of the word order of the Śatapathabrāhmaṇa which contained a statement of his views on IE word order, it was Abel Bergaigne who first studied the word order of some of the principal IE languages from a historical-comparative point of view. In an essay written in 1872, but not published until 1875/8, Bergaigne undertook to justify the application of the comparative method to syntax and to demonstrate that for both compounds and simple sentences the order of the constituent elements could best be described by 'la double formule: le terme qualifiant précède le terme qualifié et le terme régi précède le terme régissant' (1875/8:27). The languages investigated by Bergaigne were Sanskrit, Greek, Latin, the Romance languages, and the Germanic languages. Since Bergaigne was the first to study the

history of word order in the Indo-European languages, he had first to demonstrate that there was a basic inherited order, and that all languages, including Latin and Greek had 'un ordre grammatical régulier, avec cette différence que les langues anciennes avaient, grace à leurs flexions, la faculté de s'en affranchir sans en perdre conscience, tandis que les langues modernes sont réduites, par la perte des flexions, à le suivre plus or moins servilement' (1875/8:6, emphasis in text). Before Bergaigne's work, the dominant assumption had been that the word order of the ancient languages was free, while that of the modern languages was fixed. This point of view is best exemplified in Henri Weil's classic work De l'ordre des mots dans les langues anciennes comparées aux modernes (1844; 2nd ed. 1869). Bergaigne's argument for a regular grammatical order for the older Indo-European languages is quite interesting and worth quoting at length:

En distinguant les langues anciennes et modernes comme langues à construction [i.e., word order] libre et langues à construction fixe, on explique généralement cette différence entre elles par l'absence ou la pauvreté des désinences casuelles dans les secondes. Or, il importe d'éviter ici tout malentendu. Si l'on voulait dire simplement que la perte des désinences casuelles interdit aux langues romanes de prendre vis-à-vis de types de construction d'ailleurs préexistants les libertés que la richesse de la flexion laissait à la langue latine, nous n'y contredirons pas. Mais si l'on croit que le même fait peut expliquer l'établissement même des premiers principes de

construction grammaticale dans les langues romanes, nous pensons qu'on se contente trop aisément. Cette création, en quelque sort ex nihilo, destinée à compenser la chute des désinences casuelles, serait peu conforme à tout ce que nous savons de l'histoire du langage. Cette histoire en effet n'a pas d'ordinaire à nous raconter comment se réparent des pertes déjà consommées, mais comment un choix s'opère entre des moyens d'expression souvent multiples des l'origine et en tout cas incessamment renouvelés (1875/8:6-7).

Bergaigne's other arguments are based on the internal structure of compounds and on the order of the oldest Sanskrit prose. According to Bergaigne, the rules for the formation of compounds are very ancient: 'ils doivent même être antérieurs à la période de la flexion casuelle; autrement on ne comprendrait pas que leur premier terme fut dépourvu de désinence' (1875/8:5). Bergaigne makes the assumption that the 'syntaxe intérieure' of compounds can be used as a means for determining the order of elements in complete simple sentences, and since the order of the terms in the former can be shown to fit the double formula stated above, then the latter should have the same structure as well. This notion is very similar to the ideas presented in Lehmann (1969). When Bergaigne applied his 'formula' to simple sentences, he tried to show that at one time in the history of Indo-European predicates preceded their subjects just as did adjectives, so that the basic order patterns for sentences consisting of subject and verb, or of subject, verb and object were respectively VS and OVS (1875/8:134ff., 138). The justification for

the assumption that subjects followed the inflected verb is that, on the one hand, an inflected verb is an attribute in much the same manner that an adjective is, and since adjectives can be shown to precede their nouns, one would expect verbs to pattern in the same way; on the other hand, if the verbal inflections are the remains of old pronoun suffixes, then there is a certain advantage to be gained by placing the new subject as close as possible to the old (1875/8: 134). Therefore, the following examples represent the oldest types of Indo-European sentences:

- 1) kreíssōn gār basileús (Il. 1.80)
 nom. ptc. nom.
 more powerful for king

'For a king is more powerful.'

- 2) mahān̄ índrah̄ (RV. 1.8.5)
 nom. nom.
 great Indra

'Indra (is) great.'

- 3) toũ d' éklue Phoĩbos Apóllōn (Il. 1.43)
 gen. conn. 3sg.aor. nom. nom.
 him and heard Phoebus Apollo

'And Phoebus Apollo heard him.'

However, according to Bergaigne, the (O)VS type was replaced at an early date by 'l'inversion de l'attribut, pour mieux distinguer ce terme du simple qualificatif' (1875/8:138), so that the resultant orders were SV and SOV, the dominant types in late Proto-Indo-European (1875/8:139). The examples he cites are the following:

- 4) brahmāṇas tvā śatakṛata úd vamsám iva yemire
 nom. acc. voc. prev. acc. ptc. 3pl.pf.
 priests you powerful (god) prev. roof beam like raised up
 (RV. 1.10.1)

'The priests O powerful (god) raised you up like a roof beam.'

- 5) Pēleídēs d' eksaūtis atartēroīs epéesin Atreídēn
 nom. conn. adv. dat. dat. acc.
 son of Peleus and again destructive words son of Atreus
 proséeipe (Il. 1.223)
 3sg.aor.
 addressed

'The son of Peleus again spoke to the son of Atreus with destructive words.'

- 6) Dii immortales tribuno militum fortunam ex virtute
 nom. nom. dat. gen. acc. prep. abl.
 gods immortal tribune soldiers success because of bravery
 eius dedere (Cato)
 gen. 3pl.perf.
 his gave

'The immortal gods gave success to the tribune of the soldiers because of his bravery.'

Bergaigne's work was almost universally ignored after the publication of Delbrück's *Vergleichende Syntax der indogermanischen Sprachen* (3 vols. 1893-1900). The major reasons for this neglect are to be found in the lack of interest in generalizations about language typology shown by the neogrammarians, including Delbrück. Bergaigne's thinking on word order was far in advance of his times, and the 'double formule' he established for Proto-Indo-European is substantially correct as well as being far more systematic than anything else in the early literature. Bergaigne's principal error was in his identification of verbs with attributive elements, and in his

insistence that they show the same order patterns at an early period (Hirt made the same mistake, see below).

Berthold Delbrück, in a study of the word order of the oldest Sanskrit prose, summarized his basic observations as follows:

Es giebt eine traditionelle Wortstellung, die sich am besten in der ruhigen Erzählung erkennen lässt. Sie ist mit derjenigen so gut wie identisch, die wir aus dem Lateinischen kennen. Das Subject beginnt den Satz, das Verbum schliesst ihn, der Dativ, Accusativ u.s.w. werden in die Mitte genommen, jedoch so, dass der Accusativ unmittelbar vor dem Verbum steht. Das Adjectivum steht vor seinem Substantivum, ebenso der Genitiv. Das Participium steht nach seinem Substantivum, ebenso die Apposition. Die Praeposition steht nach dem Casus.

Diese traditionelle Wortstellung wird durchkreuzt von der occasionellen Wortstellung, welche in der bewegteren Erzählung und der begrifflichen Erörterung häufig ist. Das Grundgesetz desselben ist: Jeder Satztheil, der dem Sinne nach stärker betont sein soll, rückt nach vorn (1878:14).

Delbrück confined his investigation to simple sentences. Although he does not discuss the reconstruction of word order, his reference to Latin word order makes it clear that he viewed this basic pattern (and the topicalization rule) as an inheritance from Indo-European. Presumably this is the motivation for the use of the adjective *traditionelle* here. In his Altindische Syntax Delbrück

presented a similar description of word order in early Sanskrit prose, and added an explicit reference to Indo-European: 'Der in diesen Sätzen beschriebene Satztypus ist, wie ich nicht zweifle, bereits in der idg. Grundsprache vorhanden gewesen' (1888:16). The first explicit discussion of his methodology and of the reconstructibility of word order is, however, found in Die Grundlagen der griechischen Syntax (1879:148ff.), where Delbrück makes explicit reference to Bergaigne's work (1879:148-9). To counter the objection that word order cannot be reconstructed, Delbrück states that one must consider

dass alle Sprachliche Ueberlieferung in Sätzen vor sich geht, dass also Satztypen sich dem Gedächtnis ebenso gut einprägen, wie z.B. Declinationstypen. Wenn nun mehrere indogermanische Sprachen den gleichen Satztypus zeigen--der keineswegs ein allgemein menschlicher und selbstverständlicher ist--, wie soll man dem Schluss ausweichen, dass dieser selbe Typus schon in der einheitlichen Sprache vorhanden gewesen sei, welche sich ja . . . in keinem wesentlichen Punkte von den sog. Tochtersprachen unterschied?

Delbrück believed, with Wackernagel (see below), that verbs in Indo-European were unaccented in main clauses, and accented in subordinate clauses (1879:154). In contradistinction to Wackernagel, he did not believe in a difference in position of the verb in main and subordinate clauses; rather, he argued that the non-accentuation of the verb arose precisely because of its placement at

the end of the clause, since he believed on the basis of Indic data that there was a sharp gradation of accent in the Indo-European clause from a strong (or high tone) beginning to a weak (or low tone) conclusion (1878, 1879:154). The fact that the finite verb retained its accent in subordinate clauses was merely a sign that the utterance was not complete, that a main clause was to follow (1878:77). Delbrück found very little to modify in these views in the section on word order in the third volume of the Vergleichende Syntax der indogermanischen Sprachen (1900). Here Delbrück argued that since the finite verb in main clauses was accented under certain conditions in Early Sanskrit, there was evidence for establishing a third accentual category, namely weak stress (1900:82). Verbs and vocatives would fall into this class since both were unaccented clause internally but could be accented if they stood in clause initial position or if they were emphasized (1900:110). In later years, Delbrück turned his attention more and more to problems of Germanic syntax. For example, in 1910 a study of negative sentences appeared, and in 1911 a study of the position of the verb. The latter is in part a continuation of his arguments against Wackernagel's hypothesis on Modern German and Indo-European verb placement. In conclusion he suggested that in Proto-Germanic the verb in main clauses was in final position, but that for a variety of reasons it began to move towards the beginning of the clause at an early date.¹

Jacob Wackernagel's major contributions to Indo-European syntactic studies are 'Über ein Gesetz der indogermanischen Wortstellung' (1892) and the Vorlesungen über Syntax (1920, 1926). The

latter is not immediately relevant to word order studies. In the former, Wackernagel established that in Greek unaccented elements are placed after the first stressed item in the clause, even if this procedure involves placing them at some distance from the words they are to be interpreted with. Wackernagel's rationalization of the Greek data enabled him to adduce comparable facts from Sanskrit and Latin, and to suggest the relevance of Old Irish data, thereby justifying the existence of his 'law' in Proto-Indo-European itself. This rule for enclitic placement was universally accepted by Indo-Europeanists; in fact, it was the only rule of word order accepted by Meillet (see below). Wackernagel argued further that verbs in main clauses were subject to his law as well. The basis for this argument was that, since verbs in main clauses in Sanskrit are not accented, and certain Greek evidence points to earlier non-accentuation of the finite verb, one could reconstruct enclisis of the verb and consequently its occurrence in second position in the clause to Proto-Indo-European. Since Old Indic verbs are accented in subordinate clauses, they are not subject to the law Wackernagel described. The differing placement of verbs in Indo-European main and subordinate clauses was felt by Wackernagel to have direct continuance in Modern German (1892:425ff.). Although many Indo-Europeanists disagreed with Wackernagel's hypothesis about IE verb placement (e.g., Delbrück) it found support among Germanists, the most prominent of whom was Otto Behaghel. Behaghel (1929) argued contra Braune and Delbrück (1911) that the Germanic evidence unequivocally supported Wackernagel's hypothesis.

Karl Brugmann, in his Kurze vergleichende Grammatik der indo-germanischen Sprachen (1900-1904), went his own way in syntactic matters (1904:viii-ix), although this work as a whole was based on Brugmann-Delbruck (1893-1900). Brugmann (1904:677) distinguishes between habituelle and okkasionelle Wortfolge. This distinction corresponds approximately to unmarked and marked orders, respectively, in that habituelle Wortfolge is the name for 'typische Formen der Wortanordnung im Satze', while okkasionelle Wortfolge is a deviant ('abweichende') placement conditioned especially by any type of emphasis (1904:677). There are, according to Brugmann (1904:680), three different types of sentence in Indo-European--declarative, exclamatory and interrogative--each with its characteristic word orders. Thus, interrogative sentences have the questioned word in sentence initial position, and yes-no questions have verb initial position, while imperative sentences (the most common subtype of exclamatory sentence) typically have verb initial order. Declarative sentences are more diverse than either of the other classes; consequently, the finite verb has different typical placements. Narrative has initial placement, whether at absolute beginning of the relation (asti khalv indradyumnaṃ nāma sarah 'there is a lake Indradyumna by name'), or in a continuous narrative presentation (1904:683).² In other declarative sentence types, notable explanatory sentences and statements, descriptions, judgments, etc., verb final order was typical. The principal device through which this verb placement is eliminated is described by Brugmann as follows:

Abgesehen von okkasionellen Vorausnahme bei energischer Betonung des Verbal begriffs, wurde diese Schlussstellung des Verbuns besonders dadurch aufgehoben, dass Satzteile am Ende angeschoben wurden, z.B. ai. tát pašúñ ēvāsmā ētát pári dadāti gúptyai 'auf diese Weise übergibt er ihm die Haustiere zur Bewachung', lat. Sinones Galli ad Clusium venerunt castra oppugnaturi, gr. (Künstlerinschr.) Púrros epofēsen Athēnaĩos, sowie durch die den folgenden Satz direkt ankundigenden Wörter, die das Satzende aufsuchen, wie g. táde hōde u. dgl. (1904:683-4).

It is unclear whether Brugmann intends this explanation to be taken synchronically or diachronically.

The other typical elements of a clause show more uniformity in placement. Attributive words, numerals, adjectives and genitives, precede their nouns, but may follow if the noun is emphasized (1904:685). Adpositions could stand either before or after their nouns, but their development out of adverbs was only in its beginnings (1904:459f.). Brugmann pursues certain of these ideas more fully in a work which appeared posthumously (1925). There are no essential differences between the rules of word order presented there and those offered in 1904.

The usual sequence of cases in a simple Indo-European declarative sentence with full nominal forms, then, will have been like that of Old Indic:

| | | | | |
|----|-----------|------------|---------|-----------|
| 7) | vísah | ksatríyāya | balīm | haranti |
| | nom. | dat. | acc. | 3pi.pres. |
| | villagers | to prince | tribute | convey |

'The villagers convey tribute to the prince.'

Brugmann further believed that dependent clauses, in accordance with their differing origins, could either precede or follow their main clauses. Thus questions, final clauses, and relative clauses (including clauses with conjunctions based on relative stems) followed their main clauses, while conditional and presuppositional clauses preceded their main clauses (1904:688). Much of this has to be revised.

Ernst Kieckers (1911) was primarily interested in determining the placement of the finite verb in Greek and in Indo-European. He limited his investigation to main clauses, both those which constituted an entire sentence and those which followed a dependent clause (Nachsätze). He sought to show that in both literary and inscriptional prose texts medial placement of the verb was statistically predominant. The categories recognized by Kieckers are Anfangs-, Mittel-, and Endstellung.³ Kieckers was able to present evidence for the occurrence of all three word order patterns in Greek literary texts as well as in inscriptions. Furthermore, he was able to establish that certain orders were virtually formulaic, e.g., édokse tōi démōi, sprach er, in consequence arguing expressis verbis (1911:9) against Meillet's (1937) notion that word order was part of rhetoric, not of syntax. In common with Meillet and Brugmann, Kieckers believed contra Delbrück that Greek preserved Indo-European word order better than did Sanskrit. Kieckers shows that in simple sentences all three types of verb placement are found in Greek and in

most of the other Indo-European languages. Furthermore, much of the variation in placement is connected with the meaning of the verb-- for example, verbs meaning 'decide' or the like tend to have initial placement in Greek inscriptions, and parallels can be found for this placement in other Indo-European languages. Kieckers concludes from this that in Indo-European itself, all three orders must have been present, and that Sanskrit lost all but clause final order, apart from some archaic remnants (1911:99).⁴

The other clause type dealt with by Kieckers is Nachsatz. This is a main clause which follows a dependent clause, or a clause which sets a condition etc. (called Vordersatz). If . . . then, when . . . then, since . . . (then), etc. sentences all have Vordersatz/Nachsatz structure. Kieckers concludes à propos of these clauses that Nachsätze are characterized by Anfangsstellung of the verb.⁵ Kieckers establishes that Anfangsstellung in Nachsätze is habituell (1911:156) in Greek, Baltic-Slavic, Armenian, Old Germanic, Albanian and Old Irish, but notes that Endstellung is found in this category in Old Persian and Old Indic, while Avestan seems to have both Anfangsstellung and Endstellung:

Bedenkt man, dass die konsequente Durchführung der Endstellung des Verbum finitum im Hauptsatze im Altindischen und Altpersischen jedenfalls einzelsprachliche Neuerung war, so darf man wohl ein Gleiches für die konsequent durchgeführte Endstellung des Verbs im Nachsatze behaupten. Dann lehren aber die anderen indogermanischen Sprachen, dass im

Nachsätze einst Anfangsstellung des Verbs jedenfalls
habituell war (1911:156).

Meillet (1937:365ff.) uses examples drawn almost exclusively from Book I of the Iliad to support his views that 'Aucun mot n'avait dans la phrase indo-européenne une place définie et constante' and that 'C'est le grec qui garde le mieux l'usage indo-européenne de mettre d'abord le mot principal'. The only obligatory rule of word order accepted by Meillet was Wackernagel's (1892) demonstration that enclitics occupy the second position in the sentence, after the first stressed element. This rule (Wackernagel's Law) was accepted by everyone, but there was less than complete agreement on the members of the class of enclitics in Proto-Indo-European (cf. *infra*). Moreover, Meillet thought that all of the regular features of word order that are found in the Indo-European languages were the result of late developments and are based on the establishment of formulas and habitual ways of expressing the content of certain types of utterances (1937:365, cf. further Meillet-Vendryes 1924:524 and Vendryes 1950:167-8). Thus, for Meillet the historical development of word order in the Indo-European languages is from a great initial liberty based on the principle of the 'autonomy of the word' (i.e., the inflected form) to the more constrained historically attested situation, and the major evidence for the freedom of order in Proto-Indo-European is provided by Greek.

In questions of word order (as in so much else), Hermann Hirt occupies an isolated position. For example, in common with many other Indo-Europeanists, he believed that three positions of the verb

were possible in Indo-European. However, he maintained that initial placement was the oldest of the three, while final placement was a subsequent, yet still Indo-European development (1937:252). The primary supportive evidence for this view is offered, according to Hirt, by the varying order in compounds which contain verbal elements. The conditions under which verb initial placement is found are much the same for Hirt as for Delbrück and Brugmann: it occurs in narrative, both in presentational sentences and in continuous narration, in inserted sentences (type 'says he'), in questions, in imperatives, in main clauses which follow dependent clauses (1937:256), and in sentences which begin with lengthy adverbials (1937:257), whether prepositional phrases or participial constructions.⁶ Hirt further maintains à propos of Anfangsstellung that 'es ist eigentlich sonderbar, dass man sie hat verkennen können, sie nicht als eine natürliche Stellung anerkennt, sondern immer nach einer besondern Erklärung gesucht hat' (1937:255). In short, Hirt denies that it is a marked order pattern. The two other orders for the finite verb recognized by Hirt are Nachstellung and Zweitstellung. In Nachstellung an intransitive verb is placed after its subject, and a transitive verb after both its subject and object. In Nachstellung the finite verb may or may not be clause final (1937:258-9). Zweitstellung (1937:259-64) is for Hirt closely connected with unaccented verb forms. Although Hirt accepts in principle Wackernagel's (1892) view that the finite verb when unaccented appeared in the second position, he does not believe that the Old Indic repartition of accented and unaccented verb forms could be

reconstructed to Indo-European (1937:263). Hirt counts as examples of Zweitstellung sequences of negative plus verb, sentence particle plus verb, etc. (1937:262). Finally, Hirt states that the conditions under which accented and unaccented verb forms appear is still a subject for further study.

The placement of other items is more easily described. Basically, Hirt is of the opinion that in the oldest Indo-European 'die bestimmenden Elemente [standen] hinter dem bestimmte' (1937:234-5). This notion is, of course, directly contrary to the majority opinion. It is based on the structure of individual words: both nominal and verbal inflections follow their respective stems. Moreover, 'prepositions' originally stood after the case form they governed. Alternation in position of items is the result of historical change from the early Indo-European situation to a later (not fully realized) state in which the 'bestimmenden Elemente standen vor dem bestimmte'. Hirt is further of the opinion that the placement of a lexical item can often have emphasis or importance for the discourse (1937:234), but that as a rule 'Hervorgehoben wird ein Wort nicht durch die Stellung, sondern durch die Betonung'.

Hirt developed some of these ideas further in a posthumous publication which appeared in 1939. In this work Hirt maintained that all three positions, SOV, VSO and SVO existed in Indo-European and that the only time when there was a fixed order was before the development of inflectional endings (1939:193-4).

In Aspects of the Theory of Syntax (1965), Chomsky does not discuss the syntactic description of languages with (surface) word

order types different from that of English. The discussion of word order that does appear (1965:125-7; in the context of an argument against unordered right-hand elements in categorial rules) is limited to questions of 'free word order' and stylistic inversion.⁷ If the phrase structure rules in the base component were indeed intended to be universal, then the rigid SVO order generated by the base rewriting rules would require transformations to produce the different SOV (surface) structures of Turkish and Hittite, or the VSO structure of Irish. In this event, a clear implication would be that SVO order is somehow more basic, universal, and natural, an implication which has not been proved, to say the least.⁸ However, even if an Aspects-type framework were accepted, then the question of the placement and the form of the transformations which produce the different surface word orders would arise. These transformations would presumably have to be precyclic, and there is no obvious manner in which their operation could be constrained. From a diachronic point of view, word order changes, because of the distance between deep and surface structure, would have to be the result of changes in the structure of transformational rules; any discussion of grammatical change would be perforce a discussion of differences in formal properties of transformational rules. Furthermore, all transformational changes would have to be from one attested state of a language to another; since it is impossible to talk in any meaningful way about the deep structure of a reconstructed language, syntactic reconstruction would be impossible. A final point is that

there is, in an Aspects framework, no place for the implicational universals isolated by Greenberg (1966).

There are two alternatives to retaining the categorial rewrite rules in an Aspects-type theory: either the acceptance of an unordered base with different linearization rules, or the acceptance of different base orders, hence of different bases. The first alternative was explored by J. F. Staal (1967), who noted that 'the divergent arrangements of words in different types of languages would require the base of a system of universal grammar to be unordered' (1967:71), while the second seems to be the usual.

In two articles published in close succession (1963, 1964), Calvert Watkins emphasized the reconstructibility of syntax in general, maintaining that 'the underlying structure of a phrase, as in our case the rules of arrangement of the elements, can be presumed to constitute a linguistic system functioning in time, and as such to be susceptible to analysis by the comparative method as well as by other techniques of historical linguistics' (1964:1035, 1963:2). Although Watkins explicitly places his work within a generative framework (1963:3), his procedure is to isolate directly comparable surface structure patterns in the languages he investigates. Using data from Vedic Sanskrit, Hittite, Hieroglyphic Luwian, Latin, Greek and Old Irish, Watkins was able to carry much further certain basic observations on preverb placement made by Giuliano Bonfante (1930[1931]), and on sentence particles made by Miles Dillon (1947), and thereby to reconstruct the following formulae for verb phrase structures in Indo-European (N = sentence

connective, E = enclitic pronouns, P = preverb, V = finite verb form):

- I a) # V (E) . . . # stylistically marked
- b) # . (E) . . . V# normal
- II c) # P (E) . . . V# obligatory verb final when compound
- d) # . (E) . . . (P)V#
- III e) # N (E) . . . (P)V# narrative or continuous style
- IV a parallel series with N in second position for all five types (N precedes E)

Although there are minor corrections to be made in Watkins' analysis (for example, compound verbs are not obligatorily clause final), his procedures are exemplary.

Watkins (1976) is a corrective to the excesses of typological linguists, primarily W. P. Lehmann and P. Friedrich. In this article Watkins points out the circularity of much of Lehmann's work, and calls attention to the 'wilfulness' of an approach to diachronic syntax that consistently ignores data in favor of a pr-oristic notions about the structure of languages of a given syntactic type (1976:306f.). Furthermore, Watkins notes à propos of P. Friedrich's work a central methodological error: the confusion of synchronic description and diachronic analysis (1976:311).

Paul Friedrich, in a short monograph (1975) and in an article (1976), has argued against Lehmann that typological criteria admit of an SOV analysis of Indo-European word order. Applying Greenberg's implicational universals to selected small corpora of data from a number of older Indo-European languages, Friedrich attempts to show 'the limitations of the "OV hypothesis", and that it is just as fruitful to posit a type II [i.e., SVO] for Proto-Indo-European' (1975:68). From a methodological point of view, Friedrich's work is unsatisfactory, although the criticisms he makes of Lehmann's work (especially 1975:3f.) are valid. Friedrich's procedure is simply to count the occurrences of a given feature in the passage selected for the language in question and then to let majority rule determine the classification. For example, in his discussion of 'Prepositions and Preverbs: the Locative Auxiliaries' (1975:34-9), Friedrich merely states that since the majority of Indo-European languages either are strictly prepositional, or have a preponderance of prepositions over postpositions, there is a 'great probability that PIE was mainly prepositional' (1975:39). In the course of this entire discussion, Friedrich cites only two examples of adnominal usage of adpositions, both from Greek. Apart from Friedrich's obvious reluctance to cite data, and his remaining within a Greek context, he leaves unanswered such questions as the motivation for alternation between preposition and postposition in Homeric Greek, the relative freedom of placement in Homeric Greek vis à vis the later classical language, and the difference in accentuation between preposed and postposed adpositions, as well as the restrictions on placement in Homer (see Chapter

VI below). In a wider Indo-European context. Friedrich leaves unmentioned correspondences between postposed constructions in Oscan and Umbrian, in Latin, in Greek, in Sanskrit, and in Avestan. For example, the occurrence of ApN in all these languages shows that postposing of some sort must have existed in an earlier period. That is, Friedrich ignores all questions of relative chronology and all questions involving internal reconstruction. Paradoxically, we have here an essay on diachronic syntax which recognizes only discrete synchronic states without reference to historical linguistic change.

W.P. Lehmann has in a series of articles and in a monograph, Proto-Indo-European Syntax (1974, and cf. among many other items Lehmann 1969, 1971, 1972, 1973, and 1978), tried to explain virtually all aspects of Indo-European syntax through the use of surface syntactic typology. The basic assumption is that there are ideal syntactic types of languages, those with verb-object and those with object-verb order, each of which has certain morphological and syntactic correlates. The crucial factor in Lehmann's system is the relative position of verb and object (1973). By definition, languages which are not 'consistent' in their morphological or syntactic type have just undergone, or are undergoing, basic syntactic change. Lehmann's work has much in common with that of T. Vennemann (cf. especially 1972, 1973, 1974, 1975), who, however, sees morphological change as a primary cause of word order change. J. Adams (1976) has applied some of Lehmann's notions to the study of Latin word order.

Since Watkins (1976) gives an adequate critique of Lehmann's work, I will not enter into details here. His method is a prioristic, and the time scale that he works with is so vast that it precludes any close inspection of data, and hence any detailed knowledge of how word order change operates.

NOTES TO CHAPTER I

¹This is of course the position represented by J. Ross (1967), who argued that word order change begins in upper clauses first and only later filters its way down into lower clauses.

²Brugmann (1904:683) maintains that the Indo-European pattern is best preserved in Germanic and Slavic, noticeably less well preserved in Old Indic and Greek, and still less in Latin, while in Insular Celtic and Albanian initial position of the verb spread to non-narrative presentations. Further, Brugmann explains the limitation of initial position in Old Indic and Greek as follows:

Zur Einschränkung dieser Stellung im ai. usw. mag am meisten der häufige Gebrauch von rückwärts weisenden Pronomina und sonstigen satzverbindenden Wörtern, die den ersten Platz im Satze verlangten, beigetragen haben, vgl. z.B. Hom. tò d'aékonte bátēn parà thĩn' halós.

It is unclear whether he views this type of order as a variety of Spitzenstellung or not. I will return to this point below.

³Any adverbial expression at the beginning of a clause followed by a verb and subject counts as Mittelstellung.

⁴Kieckers (1911:88-9) follows Wackernagel (1892:434) too in his argument that the type Púrros epoiēsen Athēnaĩos is older than the comparable type with the verb in final position: Púrros Athēnaĩos epoiēsen. Kieckers maintains that the type with verb final order can be synchronically motivated by 'der Trieb, grammatisch und logisch zusammengehöriges auch zusammenzustellen' and perhaps, too, secondarily by the type Púrros epoiēsen. The Sanskrit example usually cited in this context, sá hovāca yājñavalkyaḥ where synchronically sá and yājñavalkyaḥ go together, is viewed by both Wackernagel and Kieckers as having the same structure as Púrros epoiēsen Athēnaĩos, and hence as having the verb in Mittelstellung. Delbrück, on the other hand, does not agree that the Mittelstellung in Púrros epoiēsen Athēnaĩos is 'altererbt', precisely because the alternate type with Endstellung of the verb exists; furthermore, he denies the structural identity of the Greek and Sanskrit examples. By accident, Delbrück has the correct solution here. Sa is obligatorily clause initial; it functions as a sentence particle, and it constitutes the leftmost boundary of the sentence. Actually, we have here an example of gedeckte Anfangsstellung 'modified initial placement' of a verb of speaking. Another example would be Avestan āaṭ aoxta ahurō mazdā. This, too, according to Kieckers (1911:70), has Mittelstellung, but āaṭ is obligatorily clause initial; it cannot occur elsewhere. By Kieckers' own implicit criterion (mobility versus non-mobility), this is modified initial placement.

The Athēnaĩos in Púrros epoiēsen Athēnaĩos or tās Paphías in tās theō ēmi tās Paphías can be explained either as afterthoughts or

as appositional material added to further specify (in the real world) an element which grammatically is already fully characterized (cf. Gonda 1959).

⁵It is interesting to note that for Kieckers absolute constructions are equivalent to whole clauses in that 'für die Wortstellung ist der Vordersatz gleichwertig mit einem Genitivus absolutus oder einer adverbialen Bestimmung' (1911:125). I hope to treat this point at a later date.

⁶Hirt believes that 'das Verbum steht auch am Anfang, wenn es ein Innern des Satzes nicht mehr als enklitisch aufgefasst werden kann. So wenn wir sagen: im August 1914 brach der Krieg aus. Hier beginnt nach der Jahreszahl ein neuer Sprechakt, und dem gemäss haben wir es mit Anfangsstellung zu tun' (1937:257). He also cites Greek examples of the type of Iliad 20.82: tōi min eisémenos proséphē Diòs huíos Apóllōn 'likening himself to him (tōi) Apollo the son of Zeus addressed him (min)'. These in my opinion cannot be explained in this manner. First, min is the object of proséphē; second, Diòs huíos Apóllōn is appositional to the participle; third, this is the only position in the line that proséphē can occupy.

⁷Chomsky states that rules accounting for free word order will have to be quite different from grammatical transformations (1965:126).

⁸Kuno (1974) maintains that all SOV languages will have multiple center-embeddings in certain types of constructions involving

sentential complements, and that a shift to SVO order is one means of eliminating the perceptual difficulties inherent in multiple center-embeddings. Kuno's proposal does not hold for Hittite, see Holland and Ickler (1978).

CHAPTER II

VERB-INITIAL SENTENCES IN HITTITE

Although the normal word order of a Hittite sentence at all periods of the language is #(connective) . . . (subject) . . . (object) . . . verb#, the finite verb may be found in other positions in the clause as well. Among the scholars who have called attention to this fact are Watkins (1963:13ff.), Ivanov (1965:256ff.), and Dressler (1969:6ff.). The statistically aberrant order is usually characterized as 'emphatic' or 'marked', and it is usually assumed that the finite verb has been shifted from its normal position at the end of the clause to a position at the beginning of the clause (so Sternemann 1966:386, Dressler 1969:21). There can be no question that the order in these sentences is emphatic, but scholars have not previously attempted to isolate contexts in which the marked order appears, nor to determine whether these contexts show any regularities.

In order to gain an impression of the frequency of verb-initial constructions, and a more specific notion of the conditions under which they occur, I have collected somewhat more than one hundred examples of verb-initial sentences from a corpus of Hittite texts selected primarily on the basis of the availability of a good edition and translation. The texts are representative of different genres

and of different periods of the language. The texts investigated are the following: Anitta (ed. Neu 1974), the Zalpa text (ed. Otten 1973), an Old Hittite Ritual for the Royal Couple (ed. Otten and Souček 1969), the Laws (ed. Friedrich 1959), the Telepinu Myth (KUB XVII 10, cited from Laroche 1965), the Annals of Muršiliš (ed. Götze 1933), Muršilis Sprachlähmung (ed. Götze and Pedersen 1934), Madduwattaš (ed. Götze 1928), Ḫattušiliš (ed. Götze 1925), Ullikummi (ed. Güterbock 1951-52), and the Hippological Texts (ed. Kammenhuber 1961).¹

In this chapter, after a presentation of some general facts about Hittite word order, I will turn to a detailed discussion of the examples of verb-initial order found in the texts investigated.

Hittite word order is more regular and stable than that of any other early Indo-European language. Throughout the recorded history of the language the usual unmarked order in simple sentences containing a nominal subject and object and an inflected verb is SOV. Furthermore, Hittite is typologically consistent with the implicational universals established for the SOV word order type by Greenberg (1966); it has preposed relative clauses (Held 1957, Holland and Ickler 1978), adjective-noun and genitive-noun order, postpositions (see Chapter VI), and standard-marker-adjective comparatives. Typical examples are the following:

- 1) DUMU.É.GAL-iš^D Ḫa-an-t[a-š]e-pa-an LUGAL-i ki-iš-ša-ri-i
 nom. acc. dat. dat.
 court noble Ḫantašepa-divinity king hanó

da-a-i (StBoT 8, Obv. I 27'-28')
 3sg.pres.
 puts

'The court noble puts a Ḫantašepa divinity in the king's hand'
 (lit. 'to the king, to the hand').

- 2) LUGAL-uš ERIN^{MES}-an 3-š[U al-la-a]p-pa-aḫ-ḫi
 nom. acc. adv. 3sg.pres.
 king troops three times spits

(StBoT 8, Obv. I 36')

'The king spits on the troops three times.'

- 3) A-BU-IA-an-na-as-za^m Mur-ši-li-iš 4 DUMU^{MES} mḪal-pa-šu-lu-
 nom.-poss.-acc.-ptc. nom. acc. acc. acc.
 father-my-us- Muršiliš four sons Ḫalpašulu-

pí-in^m NIR.GÁL-in^m Ḫa-at-tu-ši-li-in SAL^{DINGIR} M^{MES}.İR-in-na
 acc. acc. acc. acc. -conn.
 pin Muwatalliš Ḫattušiliš DINGIR^{MES}.İR-iš-and

DUMU.SAL-an ḫa-aš-ta (Ḫattušiliš I 9-11)
 acc. 3sg.pret.
 daughter begot

'My father Muršiliš begot us four children, Ḫalpašulupiš,
 Muwatalliš, Ḫattušiliš, and DINGIR^{MES}.İR-iš, a daughter.'

The main factors that may disrupt the regular (S)OV word order scheme are Wackernagel's Law and a simple topicalization rule. Wackernagel's Law is an observation about the placement of enclitic pronouns and sentence particles: they usually follow the first tonic element and thus occupy the second position in the clause. Although Hittite had not yet been discovered in 1892 when Wackernagel published his classic article, Hittite enclitic pronouns and sentence

| I | II | III | IV | V |
|--------------------|-----------------------------|----------------------------------|---------------------------------|-----------------------|
| -ja 'and' | -ja(r) direct speech marker | -aš enclitic pronouns | -kán aspect/direction particles | -an enclitic pronouns |
| -ma 'but, however' | | -an | -šan | -ši |
| | | -ši | -(a)šta | -šmaš |
| | | etc. | -(a)pa | |
| | | -za so-called 'reflexive' marker | | -za |

Table 1

particles (connectives, direct speech marker, directionals/aspect markers) are subject to Wackernagel's Law. In fact, the placement of these items is more regular in Hittite than it is in any of the languages Wackernagel used to establish his rule. If more than one of these items is present in a Hittite clause, the relative ordering presented in Table 1 is found.

The three pronouns listed in Column V (Table 1) may occur in this slot only if other pronouns in different cases or persons are present in the 'enclitic string'. These pronouns and particles are written as one word with the preceding lexical item:

- 4) na-aš-mu-kán pa-ra-a ḥa-an-da-an-te-eš-ta
 conn.-nom.-acc.-ptc. prev. 3sg.pret.
 and-she-me-ptc. over ruled

(Ḫattušiliš I 21)

'and she ruled over me'

In ex. (4) both the subject and the object are enclitic pronouns, and the basic SOV order is preserved. In ex. (5) there is a stressed sentence connective, an enclitic object, and a full noun subject; therefore, the order is Conn.-OSV rather than SOV:

- 5) nu-mu ŠEŠ-IA A-NA GAL-ME-ŠE-DI-UT-TIM ti-it-ta-nu-ut
 conn.-acc. nom.-poss. dat. 3sg.pret.
 and-me brother-my in GAL-ME-SE-DI status placed

(Ḫattušiliš I 25)

'And my brother placed me in GAL-ME-ŠE-DI rank.'

Ex. (6) shows that if the only elements in a clause are enclitic(s) and an inflected verb, then the enclitics necessarily follow the

finite verb. This procedure often results in sequences of verb plus pronominal object:

- 6) ša-ak-ta-iz-zi-ja-an
3sg.pres.-acc.

(Hittite Laws, parallel text §IX, 1.23, Friedrich 1959)

'he cares for(?) him'

Since the appearance of these verb-initial sentences is phonologically and not semantically nor contextually conditioned, they will not be discussed further in this chapter.

The other factor that disrupts the regular (S)OV structure of this language is a simple topicalization rule; if any (non-enclitic) element of a sentence is emphasized, contrasted with some preceding element, or established as a topic for any purpose, it may be placed at the beginning of the clause:

- 7) A-NA ^mḪa-at-tu-ši-li-ya MU.KAM^{HI.A} ma-ni-in-ku-ya-an-te-eš
dat. -ptc. nom. nom.
Ḫattušiliš years short

(Ḫattušiliš I 14)

'For Ḫattušiliš the years (are) short.'

- 8) LÚ^{MEŠ} KÚR^{-mu-kán} LÚ.MEŠ^{ar-ša-na-tal-lu-uš} ^DIŠTAR GAŠAN-IA
acc.-dat.-ptc. acc. nom. nom.-poss.
enemies-me-ptc. enviers Ištar lady-my

ŠU-i da-a-iš (Ḫattušiliš I 58-59)
dat. 3sg.pret.
hand put

'My Lady Ištar put (my) enemies (and) enviers into my hand.'

- 9) nu ħu-ur-ti-ja-al-la-an ħar-mi ħu-ur-ti-ja-li-ma
 conn. acc. lsg.pres. dat.loc.-ptc.
 and bowl(?) I hold in bowl -but

[AN.B]AR-aš ne-e-pí-iš 1^{EN} ki-it-ta URUDU-aš-ša 1^{EN}
 nom. nom. 3sg.pres. nom.
 iron heaven one lies copper-and one

ki-it-ta (StBoT 8 Obv. I 7'-8')
 3sg.pres.
 lies

'And I hold a bowl(?). But in the bowl lies one iron heaven.
 And one of copper lies.'

This marked placement of nouns merely affects their relative order
 and is of no significant typological consequence.

A further construction which has at first sight a marked order
 pattern, but which on closer investigation turns out to be of no
 great consequence is provided by asyndetic combinations of the
 imperatives it 'go (2sg.)' / itten 'go (2pl.)' or of inflected forms
 of pāi- 'go' and uqa- 'come' with fully inflected forms of other
 verbs (see Friedrich 1960:159-60, Čihař 1955:347ff.):

- 10) u-qa-te-en ^{URU}Ne-e-ša pa-i-qa-ni (StBoT 17 Obv. 15)
 2pl.imptv. dir. lpl.pres.
 come to Neša let's go

'Come, let's go to Neša.'

- 11) ú-it-ma LÚ KÚR ^{URU}PI-IŠ-ĦU-RU-UŠ an-da a-ar-aš
 3sg.pret.-ptc. nom. prev. 3sg.pret.
 came-but enemy from Pishurus attacked

(Ĥattušiliš II 31, see Götze 1925: note ad loc.)

'But it came (to pass that) the enemy from Pišħurus attacked'
 or 'But the enemy from Pišħurus came and attacked'.

- 12) pa-a-i-ú-e-ni-ya-ra-an-kán ku-en-nu-um-mi-e-ni
 lpl.pres.-quot.-acc.-ptc. lpl.pres.
 we go-quot.-him-ptc. we kill

(Hattušiliš Beigaben, KBo VI 29 II 25-26)

'We will go (and) kill him.'

- 13) na-an ú-ya-am-mi LÚ KÚR-aš i-ya-ar ya-al-aḥ-mi
 conn.-acc. lsg.pres. gen. postp. lsg.pres.
 and-him I come enemy like I smite

(Kupanta-KAL §9 C 35, cited in Friedrich 1960:160)

'And I will come and smite him like an enemy.'

- 14) nu i-it ^DUTU-i ^DIŠKUR-ia me-e-m[(i-i)]š-ki
 conn. 2sg.pres. dat. dat. 2sg.pres.
 and go to Sungod to Weathergod speak

(StBoT 8 Rev. III 5-6)

'And go speak to the Sungod and to the Weathergod.'

In these examples, the forms of pāi-, uya- and it/itten are placed in clause-initial, or near clause-initial position, while the main verb of the clause remains in final position. In ex. (10-12) there is no sentence introductory particle; consequently, the inflected form of the 'come' or 'go' verb stands in absolute sentence-initial position. In ex. (12) pāiyeni serves as a prop for the enclitics -yar -an and -kán; -an is the object of kuenumeni 'we (will) kill'. In ex. (13-14), on the other hand, there is a stressed sentence introductory particle which obligatorily stands at the beginning of its clause. As Friedrich points out, ex. (13) is particularly interesting in that the verb uyammi 'I (will) come' is placed between the enclitic object -an 'him' and its verb yal(a)ḥmi 'I (will) smite'. Hence, the sentence-initial nu (or ta or šu in Old

Hittite texts) followed by whatever enclitics are present (nu plus -an in ex. [13]) is a leftmost boundary for verb-initial placement, and the relevant verbs are as close to the beginning of the sentence as is possible. This type of placement of finite verbs corresponds closely to what some of the early Indo-Europeanists called 'gedeckte Anfangsstellung' (modified initial position), and it plays an important role in word order change (see Chapters III and IV).

The use of clause-initial inflected verb forms as hortatives in asyndetic combination with other inflected verbs has close parallels in Latin and Greek:

- 15) age dic Latinum / barbite carmen (Horace Carm. i 32.3)
 2sg. 2sg. acc. voc. acc.
 come say Latin lyre poem

'Come, recite O lyre the Latin poem'

- 16) all' áge dé tina mántin ereíomen è hieréa (Il. 1.63)
 conj. 2sg. ptc. acc. acc. lpl. conj. acc.
 but come ptc. some seer we ask or priest

'But come, let's ask some seer or priest'

(allá is obligatorily clause initial in Greek)

Aside from such constructions, where verb-initial order is regular, and which, after all, have a clear origin in the conflation of two clauses (see Friedrich 1925:163),³ verb-initial order in clauses which contain only one verb is relatively infrequent in Hittite.

In the remainder of this chapter I present examples of verb-initial sentences in Hittite and attempt to isolate some of the factors that play a role in the appearance of this marked order. It should be said at the outset that most of the examples collected fall

into six major categories: first, subject switch (the fronted verb is usually marked with -ma 'but, however'); second, strong contrast with a preceding verb (again with -ma); third, contrasted or complementary pairs of verbs (both fronted, both usually marked with -ma or -ia 'and', but also asyndetic); fourth, double accusatives with taru- 'name', tarkummāi- 'translate' and ḫalzešša- 'call' (usually with -ma); fifth, imperatives after verba dicendi (no -ma); sixth, the fronted verb represents the culmination of a series of actions.

Old Hittite:

- a) In the Anitta text (StBoT 18) there are no examples.
- b) In the Zalpa story (StBoT 17) there are no examples.
- c) The ritual for the king and queen (StBoT 8), on the other hand, provides a number of examples of marked order patterns quite out of proportion to its length (ca. 12 pp.):

17) ^Dḫa-an-ta-še-pu-uš ḫar-ḫa-ni GI[(š-aš)] ḫar-kán-zi-ma-an
 acc. lpl.pres. gen. 3pl.prcs.-ptc.-ptc.
 ḫantašepa-divinities we hold of wood they have-but-ptc.

^Dḫ[a]-an-ta-še-pí-eš an-du-uh-ša-aš ḫar-ša-a-a[(r-r)]a
 nom. gen. acc.-conn.
 ḫantašepa-divinities of man heads-and

GIŠŠUKUR <ḫI>.A-ia (StBoT 8 Obv. I 22'-23')
 acc. -conn.
 lances -and

'We hold ḫantašepa divinities of wood but the ḫantašepa divinities have human heads and lances.'

- 18) ša-a-ku-ya-aš-me-et iš-ħa-aš-kán-ta ú-e-eš-ša-[(a)]n-da-ma
 nom. -poss. nom. 3pl.pres. -ptc.
 eyes -their bloodshot they wear -but

iš-ħar-ya-an-tu-uš TÚG^{HI.A}-uš pu-ta-li-ia-[(a)]n-te-eš-ša
 acc. acc. nom.(?)-conn.
 blood(-red) clothes lightly clad(?) -and

(StBoT 8 Obv. I 24'-25')

'Their eyes (are) bloodshot but they wear blood(-red) clothes and (are) lightly clad(?).'

- 19) an-da-kán ħa-li-i-na-aš te-eš-šum-mi-uš tar-li-pí-it
 prev.-ptc. gen. acc. instr.
 in-ptc. of clay(?) cups with tarlipa

šu-u-ya-mu-uš 2-ki pí-e-tu-mi-ni ta-ru-e-ni-ma-at e-eš-ħar
 acc. adv. lpl.pres. lpl.pres.-ptc.-acc. acc.
 full twice we bring we call-but-it blood

(StBot 8 Obv. I 27')

'We bring in twice (the) cups of clay(?), full with tarlipa, but we call it blood.'

- 20) ta LUGAL-i ki-iš-ša-an te-e-mi pa-i-mu
 conn. dat. adv. lsg.pres. 2sg.pres.-dat.
 and to king as follows I say give-me

DUMU.É.GAL-in (StBoT 8 Obv. II 16)

acc.
 court noble

'Then I say to the king as follows: give me a court noble.'

- 21) ta ši-i-ni te-e-mi da-a LUGAL-aš SAL.LUGAL-ša
 conn. dat. lsg.pres. 2sg.imptv. gen. gen. -and
 and to figurine I say take of king of queen -and

a-i-in ya-a-i-in pit-tu-li-uš-mu-uš-ša
 acc. acc. acc. -poss.-conn.
 grief pain affliction-their-and

(StBoT 8 Rev. IV 29-30)

'And to the figurine I say: take the king and queen's grief, pain and their affliction.'

- 22) [(ú)-ga ḫal-z(i-iḫ-ḫi da-a-aḫ-ḫu-uš-m)]a-aš-ta a-i-in
 nom.-conj. lsg.pres. lsg.pret.-dat.-ptc. acc.
 I-but shout I took -for you grief

ua-a-i-in [pit-tu-lj-uš-m (u-uš)]-ša (StBot 8 Rev. IV 38-39)
 acc. acc.-poss.-conn.
 pain affliction-your-and

'But I shout: I have taken (away) for you grief, pain and your affliction' (so Otten and Souček 1969:123).

Of these six examples, three (17, 18, and 19) have -ma 'but, however' attached to the clause-initial verb; in ex. (18) and (19) there is a change of subject between the two clauses cited, while in (19) the verb has a double accusative object, one an enclitic. It is interesting to note that the last three examples of clause-initial verbs (20, 21, and 22) occur immediately after the verba dicendi tēmi and ḫalziḫḫi; the first two are imperatives, and the final one is the culmination of the entire ritual.⁴ Moreover, these verba dicendi have entire clauses as their objects, not accusative nouns or pronouns.

d) In the Hittite Laws (ed. Friedrich 1959) there are four repetitions of the same basic formula which consists of two clauses in clear contrast:

- 23) LUGAL-an a-aš-ki u-ya-[(da-an) -z]i ku-en-zi-ma-an LUGAL-uš
 gen. dat. 3pl.pres. 3sg.pres.-ptc.-acc. nom.
 of king to gate they bring he kills-but-him king
- ḫu-iš[-nu-]zi-i[a-an LUGAL-u]š LUGAL-i-ma-aš Ú-UL ti-ia-iz-zi
 3sg.pres. -acc. nom. dat.-ptc.-nom. neg. 3sg.pres.
 lets live -him king to king-but-hc not steps

(Tablet II §73, 21-22. §74, 24-25 is an exact repetition.)

'They bring (him = the offender) to the king's gate. But the king can kill him, the king can let him live. But before the king he does not step.'

- 24) ta ḫu-ur-ki-in (!) ḫa-l[i]-en-zi ku-en-zi-uš LUGAL-uš
 conn. acc. 3pl.pres. 3sg.pres.-acc. nom.
 and at wheel they kneel kills-them king

ḫu-u-iš-nu-zi-ja-aš LUGAL-uš (Tablet II §84,14-15)
 3sg.pres. -acc. nom.
 lets live them king

'And they kneel at the wheel. The king can kill them, the king can let them live.'

- 25) A-NA KÁ É.GAL^{LIM} ú-qa-te-iz-zi ku-en-zi-uš LUGAL-uš
 dir. 3sg.pres. 3sg.pres.-acc. nom.
 to gate of palace he brings kill-them king

ḫu-iš-nu-zi-ja-aš L[UG]AL-uš (Tablet II §85, 17-18)
 3sg.pres. -acc. nom.
 lets live -them king

'He brings (him/them) to the gate of the palace. The king can kill them, the king can let them live.'

In the first two occurrences of this formula, the clause-initial verb kuenzi 'he kills' is clearly marked as contrastive by -ma 'but, however', while the other clause-initial verb ḫuišnuzi 'he lets live' is asyndetically joined to it.⁵ The semantic contrast between these two verbs is, of course, obvious; presumably this is one reason why the -ma could be omitted in the last two examples. Asyndesis is often contrastive.

Classical Hittite:

- e) Telepinu text (KUB XVII 10, cited from Laroche 1965)

- 26) ^DMAḪ ^DIM-ni te-et i-ja ku-it-ki [^D]IM-aš
 nom. dat. 3sg.pret. 2sg.imptv. acc. nom.
 Mother God Storm God said do something Storm God

(KUB XVII 10 I 30-31)

'The Mother God said to the Storm God: do something, Storm God.'

- 27) a-uš-ta-ta-an ^DKam-ma-ru-še-pa-aš (KUB XVII 10 II 35)
 3sg.pret.-acc. nom.
 saw-him Kammarušepaš

'God Kammarušepaš saw him.'

- 28) na-an a-r[a-a-it] kar-pí-iš na-an a-ra-a-it
 conn.-acc. 3sg.pret. nom. conn.-acc. 3sg.pret.
 and-him overcame anger and-him overcame

kar-di-mi-i [a-az na-an ūa-aš-du-ul] a-ra-a-it
 nom. conn.-acc. nom. 3sg.pret.
 rage and-him transgression overcame

ša-a-u-ar a-ra-a-it (KUB XVII 10 II 36-III 2)
 nom. 3sg.pret.
 ill-will overcame

'And anger overcame him. And rage overcame him. And transgression overcame him. (And) ill-will overcame (him).'

- 29) da-a-aḥ-ḥu-un-za pat-tar 1 LI-IM IGI^{HI.A}-ua
 1sg.pret. -ptc. acc. acc.
 I took -ptc. wing one thousand eyes

(KUB XVII 10 III 6)

'I took a wing and one thousand eyes.'

- 30) pa-id-du ^DTe-li-pí-nu-ua-aš kar-pí-iš kar-di-mi-ia-az
 imptv. gen. nom. nom.
 let go of Telipinu anger rage

ua-aš-du-ul ša-a-u-ar (KUB XVII 10 IV 8-10)
 nom. nom.
 transgression ill-will

'Let Telipinu's anger, rage, transgression (and) ill-will go.'

- 31) ḥa-a-aš-ta ^{LÚ}SÚL.DU₈ 7 ^{GIŠ}IG a-ap-pa ḥu-it-ti-ia-at
 3sg.pret. nom. acc. prev. 3sg.pret.
 opened doorkeeper seven doors opened

7 ^{GIŠ}ḥa-at-ta-lu (KUB XVII 10 IV 14)
 acc.
 seven bolts

'The doorkeeper opened seven doors. He unlocked seven locks.'

Exx. (30-31) occur at the beginning of new sections in the text; the sections, roughly of paragraph length, are marked by lines on the tablets. The second clause in (31) begins with a preverb which is followed immediately by the finite verb. This is the same type of initial placement of the verb as is shown by the clauses in (28), each of which begins with a sentence connective followed by an enclitic pronoun. Both the preverb and the sentence connective serve as left boundaries for verb fronting.⁶ The verbs in (26) and (30) are imperatives; (26) has the same structure as (20-22); that is, it is a verb of speaking with a full clause as its object. Ex. (29) occurs at the point in the text where the bee explains how he found Telipinu after a number of other animals and gods were unable to do so.

f) In the Annals of Muršiliš (ed. Götze 1933) there are two examples of verb-initial order:

32) nu e-ip-pir-ra me-ik-ki ku-en-ni-ir[-ra me-ik-ki]
 conn. 3pl.pret.-conn. acc 3pl.pret.-conn. acc.
 they seized many they killed many

(KBo II 5 Rev. III 36)

'They seized many and they killed many.'

33) ma-an-ya-mu na-aḥ-šar-nu-ut-ma ku-iš e[-eš-ta-ma-an]
 ptc.-quot.-dat. 3sg.pret.-conj. nom. 3sg.pret.-ptc.
 -me frighten-but who

[tu-el] ḥa-an-te-iz-zi-iš ŠEŠ-aš (KUB XIX 29 IV 7)
 gen. nom. nom.
 your first brother

'Wer mir Respekt abgenotigt hatte, w[are dein] ältester Bruder [gewesen]' (Götze).

Ex. (32) is the conclusion of a series of actions. In ex. (33) the emphasized verb is marked with -ma. Unfortunately, both suppletions are questionable (see Götze 1933: ad loc.). A final example from this text is

34) na-an-mu pa-ra-a pí-i-e-ir (KBo III 4 Rev. III 19)
 conn.-acc.-dat. prev. 3pl.pret.
 and-him-me over they gave

'And they gave him over to me.'

Exx. (33) and (34) are structurally ambiguous: in both, the sentence begins with a conjunction or sentence particle followed by a series of enclitics. In (33) the verb is evidently not in clause final position because it is followed by kuiš, yet it has been placed as far towards the left as is possible, since the conjunction and enclitic string act as a left boundary for verb fronting. In (34) the finite verb is in clause final position, but even if it had been fronted it could not appear in any other position because of the nature of the preceding material.

g) In Muršilis Sprachlähmung (ed. Götze and Pedersen 1934) the only sentence which might have a fronted verb is the following:

35) [na-aš] iš-ta-an-ta-it ku-it (Obv. 26)
 conn.-he 3sg.pret. conj.
 and-he delayed since

'And since he delayed'

In this clause the finite verb follows a sequence of sentence particle and enclitic, and is in turn followed by kuit 'since'. In this meaning kuit cannot occur clause initially. Since, however, it could

have been placed after na-aš, the verb has apparently been moved to the beginning of the clause.

h) In the Madduwattaš text (ed. Götze 1928)⁷ there are a number of sentences with a negative in clause final position and the finite verb in modified initial position:

36) xxxxxxxx nu-ya-ra-an] ša-an-na-at-ti-ja li-e
 conn.-quot.-acc. 2sg.imptv.-conn. neg.
 and-quot.-him you conceal-and not

mu[-un-na-]a[?]-ši^{??}-i[a-]ya-ra-an li-e
 2sg.imptv. -and-quot.-acc. neg.
 you hide -and-quot.-him not

[nam-ma-]ia-ya-ra-an-za ta-me-e-da-ni KUR-ia
 adv.-conn.-quot.-acc.-ptc. dat. dat.
 furthermore-and-quot.-him other country

li-e a[n-da tar-na]-ši (Obv. 35-36)
 neg. prev. 2sg.imptv.
 not in allow

'Do not conceal him, also do not hide him, furthermore
 do not allow him into another land.'

Two further occurrences of the verb šannatti are found (again in a fragmentary context) later on in the same column:

37) z[i-ik-ka-]ya-ra-an li-e [ša-an-]na-at-ti (Obv. 38)
 you-quot.-acc. neg. 2sg.imptv.
 you-quot.-him not conceal

'Do not conceal him.'

38) nu-ua-ra-an li-e ša[-an-na-at-ti] (Obv. 40)
 conn.-quot.-acc. neg. 2sg.imptv.
 and-quot.-it not conceal

'And do not conceal it.'

Exx. (37-38) have the same structure as the first clause in (36), and there seems to be no contextual motivation for the difference in order. The only overt grammatical distinction between (36) and (37-38) is that the verbs in the first two clauses of (36) are conjoined by -ja . . . -ja and are more or less synonymous. The second verb in (36) must also be interpreted as clause initial, since lē is a fully stressed element and may occur at the beginning of sentences.

i) The Hattuşiliš text (ed. Götze 1925) contains the following examples of non-final verb placement:

39) ma-a-an-mu iš-tar-ak-zi ku-ua-pí nu-za-kán
 conj.-dat. 3sg.pres. conj.-adv. conn.-ptc.
 if-for me it goes badly ever and-ptc.-ptc.

ir-ma-la-aš-pat ŠA DINGIR^{LIM} ḥa-an-da-an-da-tar še-ir
 nom.-ptc. gen. acc. prev.
 sick-indeed of the god power

uš-ki-nu-un (Obv. I 44-45)
 lsg.pret.
 I saw

'If ever it went badly for me, then even sick I saw the power of the divinity.'

40) nu-uš-ši ku-ru-ri-ja-aḥ-ḥu-un ku-ru-ri-ja-aḥ-ḥu-un-ma-aš-ši
 and-dat. lsg.pret. lsg.pret. -but-dat.
 and-him I became an enemy I became an enemy -but-to him

GIM-an nu a-pa(?) -a-at pa-ap-ra-tar Ú-UL DÙ-nu-un
 conj. conn. acc. acc. neg. lsg.pret.
 how now that evil not I did

(Rev. III 66-67)

'And I became an enemy to him. But how I became an enemy to him, now that I did not do (as an) evil thing.'

- 41) ki-nu-un-ma-ya-aš-ši ku-ru-ri-e-eḫ-ḫu-an-zi ku-ya-at
 adv. -but-quot.-dat. inf. adv.
 now -but -to him to be an enemy why
- ḫa-at-ri-eš-ki-ši ma-a-an-ya-ra-aš-mu-kán šu-ul-li-ia-at
 2sg.pres. conj. -quot.-nom.-acc.-ptc. 3sg.pret.
 you write if -he -me strive
- ku-ya-pí Ú-UL (Rev. III 76-77)
 adv. neg.
 ever not

'But now why do you write to him (in order) to be an enemy?
 If only he had never striven against me.'

- 42) ki-nu-na-aš-mu-kán šu-ul-li-ia-at ku-it na-an-mu-kán
 adv.-nom.-acc.-ptc. 3sg.pret. conj. conn.-acc.-dat.-ptc.
 now-he-me strive since -him -to me
- DINGIR^{MES} DI-eš-na-az kat-te-ir-ra-aḫ-ḫi-ir (Rev. III 79)
 nom. abl. 3pl.pret.
 gods judgment make inferior

'Since now he has striven against me, the gods have made him
 inferior to me through a judgment.'

- 43) šal-la-nu-nu-un-ya-ra-an ku-it am-mu-uk nu-ya-ra-an
 lsg.pret. -quot.-acc. conj. nom. conn.-quot.-acc.
 I made great -him since I -him
- ḫu-ua-ap-pí DI-eš-ni ḫu-ya-ap-pí DINGIR^{LIM}-ni Ú-UL pa-ra-a
 dat. dat. dat. dat. neg. prev.
 evil judgment evil divinity not
- Ú-UL ku-ya-pí-ik-ki tar-na-aḫ-ḫu-un (Rev. IV 11-13)
 neg. adv. lsg.pret.
 not at any time I turned over

'Since I made him great, I did not at any time turn him over
 to an evil judgment, to an evil divinity.'

- 44) nu-mu D IŠTAR URU^U ša-mu-ḫa [GAŠAN-IA] EGIR-an ti-ia-at
 conn.-acc. nom. nom.-poss. prev. 3sg.pret
 -me Ištar of Šamuḫa my lady took care of
- nu ḫa-at-ra-a-nu-un ku-e-da [-aš KUR.KUR]-e-aš
 conn. lsg.pret. dat. dat.
 I wrote which countries

sentences with verbs followed by appositional material and sentences with verbs placed after an enclitic string but followed by structurally significant material. For instance, in ex. (45) the postverbal material is clearly appositive to the accusative enclitic -an 'him':

- 45) [ku-e-d]a-ni-ya-ra-an pí-ih-hi a-ši DUMU-an
 dat. -quot.-acc. 1sg.pres. acc. acc.
 to whom -him I give this son

(Col. III 27'-28')

'To whom shall I give him, this son?' (Güterbock).

Furthermore, since kuedani could conceivably have been placed elsewhere in this sentence, the finite verb cannot be regarded as in modified initial position. Yet, as ex. (3) shows, quite lengthy appositions to enclitic pronouns may be placed before the finite verb in Hittite. In exx. (46) and (47) a nominative enclitic pronoun, -aš 'he', is found:

- 46) na-aš ša-ra-a ti[(-i-ja-at ^DKu)]-mar-bi-iš (Col. II 17)
 conn.-nom. prev. 3sg.pret. nom.
 and-he went Kumarbi

'And he got up, Kumarbi' (Güterbock).

- 47) na-aš i-ja-an-ni-ja[-at] ^DKu-mar-bi-iš (Col. II 20)
 conn.-nom. 3sg.pret. nom.
 and-he marched Kumarbi

'And he traveled, Kumarbi' (Güterbock).

In these two examples the 'proleptic' pronouns force an interpretation of the postverbal elements as appositions, even though they are maximally short. Two genuinely ambiguous examples are provided by

(48) and (49). Here lengthy subjects follow the finite verb, but are not 'announced' by pronouns.⁹ Furthermore, these examples occur at points in the narrative where fronted verbs would be appropriate:

48) le-e-m[a-ya-ra-an a-uš]-zi ^DU-aš ^{URU}Kum-m[i-ia-aš]
 neg.-adv.-quot.-acc. 3sg.pres. nom. gen.
 not-but -him sees Storm God of Kummiya

UR.SAG-li-uš LUGAL-uš (Col. III 32')
 nom. nom.
 heroic king

'He shall not see him, (he) the Storm-God, the brave king of Kummiya' (Güterbock).

49) le[-e-ya-ra]-an a-uš-zi ^DIŠTAR-iš ^{URU}Ni-nu-ya-aš
 neg. -quot.-acc. 3sg.pres. nom. gen.
 not -him sees Ištar of Nineveh

SAL.LUGAL-aš tar-x-x-kán-ta-aš SAL-aš (Col. III 33'-34')
 nom. nom. nom.
 queen ? woman

'She shall not see him, (she) Ištar, the queen of Nineveh, the . . . woman' (Güterbock).

Although the injunctive negative lē is a fully stressed lexical item, and can occur in other positions in the clause, it usually behaves like a preverb. Hence, the verbs in these clauses may be regarded as showing modified initial position.

The following sentence contains an unambiguous example of a clause-initial verb:

50) u-ya-at-ten ḫal-z[i-eš]-ša-i-ya-aš-ma-aš^D Ku-mar-bi-iš
 2pl.imptv. 3sg.pres. nom.
 come calls Kumarbi

DINGIR.MEŠ-aš ad-da-aš DINGIR.MEŠ-aš par-na
 gen. nom. gen. dir.
 of gods father of gods to house

(Col. III 43'-44'; cf. also C Col. III 11')

'He calls you, Kumarbi, the gods' father, to the gods' house'
 (Güterbock).

Here the verb occurs at the beginning of the sentence. This clause occurs after a series of imperatives; the immediately preceding line contains a form of memija- 'speak':

nu ki-i da-aš-ša[-u-ya] INIM.MEŠ-ar^D Ir-ši-ra-aš pir-an
 ptc. acc. acc. acc. gen. postp.
 and these strong words Irširra-gods before

me-mi (Col. III 42')
 imptv.
 speak

'and these strong words before the Irširras speak.'

An indication of the arbitrary, non-recoverable nature of some variation in Hittite word order is given by the contrast between (51) and (52):

51) na-an a-pu-u-uš [pe-e-da-an-zi MI]-i KI-pí
 conn.-acc. nom. 3pl. dat. dat.
 conn.-him they carry dark earth

(Col. III 46'-47')

'and they [will carry] him to the dark earth.'

- 52) nu-ya-ra-an)] MI-i KI-pí pe-e-ta-at[-(t)en]
 conn.-quot.-acc. dat. dat. 2pl.imptv.
 and-quot.-him dark earth convey

(C Col. III 21')

'and to the dark earth carry him.'

Although the text here is fragmentary, the suppletions are more or less correct; the fronted verb in ex. (51) is guaranteed by KI-pí and by the enclitics after the immediately following word (not cited). Another pair of examples shows variation in word order:

- 53) I [NIM-n] i-ma-ya-aš-ma-aš ku-e-da-ni ḥal-zi-eš-ša-i
 dat. -but-quot.-acc. dat. 3sg.pres.
 matter -but-quot.-you which he calls

(Col. III 44')

'But the matter about which he calls you' (Güterbock).

- 54) ḥal-zi-eš-ša-i(-ma-ya)-a š-ma-aš ku-e-da-ni me-ni-ja-ni
 3sg.pres. -but-quot.-acc. dat. dat.

(C Col. III 12)

'But the matter about which he calls you'

Under the assumption that the reconstruction of the text is correct, there seems to be no ascertainable reason for the variation in word order in these sentences. Exx. (51) and (53) occur in a speech which is to be delivered to the Irširra gods; exx. (52) and (54) are in the speech when it is actually delivered.

A proleptic enclitic pronoun is present in the following:

55) šal-li-iš-ki-iz-zi-ja-aš^{NA4} Ku-un-ku-nu-uz-zi-iš
 3sg.pres. -nom. nom.
 grows -he Kunkunuzzi

(Col. IV 22')

'(And) he grows up, the Kunkunuzzi.'

Here the clause-initial verb is at the beginning of a new section of the text (marked as such on the tablet by a horizontal line across the column). Such a placement at the beginning of a section is otherwise quite infrequent--there are only two other examples in the corpus investigated here. One may wonder whether the enclitic pronoun and the appositional nature of the full noun subject conditioned this placement, that is, whether this sentence is not in fact similar to exx. (46-47) in structure rather than to other examples with fronted verbs.

A clause with indisputable verb initial order is given in (56):

56) ku-it-ya-ra-aš ú-iz-zi AN-aš^D UTU-u[(š KUR-e)-aš
 interrog.-quot.-nom. 3sg.pres. gen. nom. gen.
 why -he comes of heaven Sungod of land
 LUGAL-uš (ú-iz-zi)-m]a-ya-ra-aš ku-e-da-ni me-mi-ia-ni
 nom. 3sg.pres.-but-quot.-nom. dat. dat.
 king comes -but-quot.-he what matter

(Col. IV 45'-46')

'Why does he come, the Sun-God of Heaven, the land's King?
 The matter about which he comes' (Güterbock).

Here the relationship of the clause with the fronted verb to the preceding clause is clear: the first clause asks a question, the second answers it. Since the act of coming is questioned, the verb is emphasized in the reply. The contrastive particle -ma is omitted

in one of the copies (Güterbock 1951:158, n. 74), another indication of the contrastive value of asyndeton.

As the final example from this text, I cite the following, which contains a fronted hortative verb:

57) e-ḥv pa-a-i-u-e-ni I-NA ^{URU} Ab-zu-ṽa MA-ḤAR ^{DÉ-A}
 imptv. lpl.pres. dat. gen.
 come we go Abzuwa before Ea

(A Col. II 19)

'Come! Let us go to Apsuwa, before Ea!' (Güterbock).

k) The stylistic range of the hippological texts (ed. Kammenhuber 1961) is much narrower than that of any of the other texts discussed in this chapter. These texts consist of descriptions of training regimes for horses. The instructions are expressed through third person verb forms, both singular and plural. These texts show a surprisingly high incidence of verb initial constructions, virtually all of the following type, in which the fronted verb is in contrast with the immediately preceding verb, and is usually accompanied by -ma:

58) ma-a-an ANŠE.KUR.RA^{HI.A} zé-e-ni u-zu-ṽ-ri-ti-i tar-na-i
 conj. acc. dat./loc. dat./loc. 3sg.pres.
 when horses autumn grass lets

na-aš tu-u-ri-ia-zi na-aš 3 DANNA pí-en-na-i
 conn.-acc. 3sg.pres. conn.-acc. 3sg.pres.
 and-them yokes and-them three miles lets trot

par-aḥ-zi-ma-aš A-NA 7 IKU^{HI.A} EGIR-pa-ma-aš
 3sg.pres.-conj.-acc. adv. -conj.-acc.
 lets gallop-but-them over seven fields back -but-them

A-NA 10 IKU^{HI.A} par-aḥ-zi (Kikk. Tab. I Obv. I 3-6)
 dat. 3sg.pres.
 over ten fields lets gallop

62) EGIR-an-da-ma I-NA 10 MU-ŠI tu-u-ri-eš-ki-iz-[zi
 adv. -conj. dat. 3sg.pres.
 afterwards-but ten nights he yokes

GE₆-ti-ma] GE₆-ti te-pu pí-en-ni-eš-ki-iz-zi
 dat.-conj. dat. adv. 3sg.pres.
 night-but night little he lets trot

la-aḫ-ḫi-eš-k[i-ni-zi-ma-aš] A-NA 7 IKU^{HI.A}
 3sg.pres. -conj.-acc. dat.
 lets gallop -but-them over seven fields

(Kikk. I Rev. IV 41-43)

'Danach spann[t] er (sie) 10 Nächte lang an. [Nacht für]
 Nacht lässt er (sie) wenig traben, galoppieren [aber] lä[sst
 er sie] (über) 7 Felder' (Kammenhuber).

Further examples of the opposition of the verbs pennāi- and parḫ- are found on this tablet as Rev. IV 2-3, 15-16, 28, 33-34, 53-54, 66 and 72-73. On the second tablet examples of this opposition occur at Obv. II 28, 55-56, 56-57, 58-59, 60-61, 61-62, 70-71, Rev. III 30, 31-32, 36-37, IV 42-43 and 71-72. On the third tablet this opposition appears at Obv. I 2-3, 16-17, 39-40 (? see Kammenhuber ad loc.), Obv. II 2-3, 13-14, 23-24, 32-33, 42, 54-55, Rev. III 29 (?), 50-51, 59-60, Rev. IV 7-8, 14-15, 33-34. On the fourth tablet it occurs at Obv. 2, 13-14, 18, 23, 37, 48, 48-49, 53, Rev. 16, 21 and 46.

In the so-called 'rein hethitische Trainingsanweisung' the verb pennāi- 'let trot' does not occur; the compound expression (zallaz) uya- is used instead. When in this text parḫ- 'let gallop' is contrasted with the expression for 'trot', the clauses are, according to Kammenhuber, connected with -ja 'and' rather than with -ma 'but'. It is also possible that the clauses are asyndetically

linked, with -ja- merely noting the glide between the verb ending and the following pronouns:

- 63) na-ku-ma-an-ti-ša-at [2 DANNA u-ya-an-zi
 nom. -nom. 3pl.pres
 naked -they two miles go
- pa]r-ḥa-an-zi-ja-aš 2 ME gi-pí-eš-šar
 3sg.pres. -conn.-acc.
 lets gallop -and-them two hundred yard

(I Obv. 12'-13')

'Nakt sie [2 Meile traben], und [g]aloppieren lässt
 man sie 200 Ellen' (Kammenhuber).

A similar opposition of these two verbs is found on Tablet II at Obv. II 3'-4', on Tablet III at Obv. I 11', on the fourth tablet at Rev. IV *51'--*52', on Tablet VI at Obv. I 9'-10', 11'-12', 23'-24', 26'-27', Rev. IV 4', 13'-14', 16'-17', and in a very fragmentary context on the Fragment 82/p. On Tablet VIII Obv. I *42' parḥ- is contrasted with palaḥšāi- 'rest' (trans.).

Another pair of verbs which is found in constant association is ašnu- 'tend to, take care of' and šakruyāi- 'give to drink' (so Kammenhuber 1961: Index, s.v.; Friedrich 1952: s.v. gives 'rub down'). The usual collocation of these verbs may be illustrated by:

- 64) na-aš-kán aš-nu-zi ša-ak-ru-ya-an-zi-ja-aš
 conn.-acc.-ptc. 3sg.pres. 3pl.pres. -conn.-acc.
 and-them-ptc. tends they make drink -and-them

(Kikk. I Obv. I 7)

'And he tends to them and they make them drink.'

This formula occurs further at Kikk. I Obv. I 18, 30, IV Obv. 10, 43, 49-50, 54, 59-60, Rev. 13-14, 17, 52-53, and with a slight

- 67) na-aš ar-ra-an-zi [kat-ka]t-ti-nu-an-zi-ja-aš
 conn.-acc. 3pl.pres. 3pl.pres. -conn.-acc.
 and-them they wash ? -and-them

(Kikk. I Obv. 32-33)

'And they wash them and let them dive?'

A final example with a postverbal conjunction occurs in

- 68) I-NA 7 MU-ŠI-ma pí-en-nu-ma-an-zi 2-ŠU 7 DANNA
 dat.-conj. inf.
 in seven night-but to trot two times seven miles

ar-nu-an-zi tu-u-ri-ja-an-zi-ma-aš ma-ši-ja-an-ki
 3pl.pres. 3pl.pres. -conj.-acc. conj.
 move they yoke -but-them as often as

nu KASKAL-ši KASKAL-ši-pat I-NA 7 IK^{HI.A} an-da
 conn. dat. dat. -ptc. I-NA 7 IK^{HI.A} dat. postp.
 time time in seven fields

pí-en-ni-eš-ki-iz-zi ! (Kikk. II Obv. II 12-15)
 3sg.pres.

lets trot (apparently in error for parḫanuškizzi,
 Kammenhuber 1961:88, n. 59)

'In der 7. Nacht aber bewegt man 2 mal 7 Meilen im Trab². So oft man sie aber anspannt, lässt er jedes Mal in¹ 7 Feldern galoppieren¹' (Kammenhuber).

Here again the fronted verb is marked with -ma.

The Kikkuli text is famous for the proto-Aryan and Hurrian technical terms it contains. These terms are usually accompanied by Hittite glosses. The Hittite verbs used to introduce the glosses are ḫalzešša- 'to name' and tarkummāi- 'to translate'. When the latter is used it is clause initial and accompanied by kiššan 'as follows'; the complement is a complete sentence (so Kikk. II Obv. I 46f., 76f., II 37-38). In the case of ḫalzešša- the matter is more complicated:

- 69) nam-ma-aš 38 IKU^{HI.A} par-ḥa-a-i
 adv.-acc. 3sg.pres.
 further-them thirty-eight fields he lets gallop
- ḥal-zi-iš-ša-an-zi-ma ši-i-ni-ši-el-ia a-u-za-mi-e-ya_a
 3pl.pres. -conj.
 they name -but s. a.
- tar-ku-ma-an-zi-ma ki-iš-ša-an ka-a-ya 20 IKU^{HI.A}
 3pl.pres. -conj. adv. adv.
 they-translate -but as follows here twenty fields
- par-ḥa-a-i ka-a-ma-ya[!] 7 IKU^{HI.A} par-ḥa-a-i
 3sg.pres. adv.-conj. 3sg.pres.
 he lets gallop there-but seven fields he lets gallop
- ḥal-zi-iš-ša-an-zi-ma 2[!]-an-ki par-ḥu-ya-ar
 3pl.pres. -conj. acc.
 they call -but double gallop

(Kikk. II Obv. I 45-48)

'Ferner lässt er sie 38 Felder galoppieren. Man nennt (das) "šinišella auzamēya"; man übersetzt (das) folgendermassen: "Hier lässt er 20 Felder galoppieren, dort aber lässt er 7[!] Felder galoppieren." Man nennt (das) 2-faches Galoppieren' (Kammenhuber).

One could argue that there is simple omission of an object enclitic pronoun after the verb so that the actual name is appositional to the (omitted) pronoun, but another order is frequently attested:

- 70) na[-aš] ½ DANNA 20 IKU^{HI.A}-ia pí-en-n[a-i]
 conn.-acc. -conn. 3sg.pres.
 and-them one-half mile twenty fields -and he lets trot
- par-ḥa[-i]-ia ½ DANNA 20 IKU^{HI.A}-ia
 3sg.pres.-conn. -conn.
 lets gallop-and one-half mile twenty fields -and
- u[-ya-aḥ-]nu-ya-u-ar-ma 5 ḥal-zi-iš-ša-an-zi
 acc. -conj. 3pl.pres.
 turn -but five they call

(Kikk. III Obv. II 23-25)

'Dann lä[ss]t er [sie] ½ Meile und 20 Felder traben, und galoppieren lä[ss]t er ½ Meile und 20 Felder; "R[u]nden 5" nennt man (das)' (Kammenhuber).

The order hal.-ma Object occurs further at Kikk. II Obv. I 78, II 39 (see Kammenhuber note 39 ad loc.), III Obv. I 3 (with notes 14 and 50), II 44 and 55. The order Obj.-ma X hal. is found also at Kikk. III Obv. II 34, Rev. IV 9, 15-16, IV Obv. 19, 59, 66, Rev. 9, 62 and on the lower edge at 3 (see Kammenhuber's note 90 ad loc.).

Although the Kikkuli text is generally regarded as a translation from Hurrian, and the '3. Trainingsanweisung' is considered (by Kammenhuber, at least) to have been composed in Hittite without a Hurrian model, the linguistic differences between these texts do not seem to extend to questions of word order.

In summary, most of the examples of verb-initial order or of modified initial position I collected fall into a few major categories. Although there is a small residue which cannot be easily explained, and although none of the categories treated obligatorily entails verb-initial placement, the categories isolated do provide a basis for discussion and for comparison with other Indo-European languages. In all cases the initial verbs can only occur in 'Nachsätze', in accordance with the rule established by Dressler (1969; see also Chapter III). A peculiarity of the texts investigated is that, while the hippological texts constituted less than one fifth of the corpus, they supplied more than one half of the total number of examples of verb-initial clauses. The annalistic texts had by far the lowest density of verb-initial constructions. Differences

in genre seem to be far more important for the occurrence of marked order patterns than do differences in age of the text.

NOTES TO CHAPTER II

¹Since the editions I quote from have been published over a fifty year period, there are many differences in transliteration practices, and there have been numerous changes in the reading of signs. In order not to confuse readers who are not Hittitologists, I have attempted to bring all the examples cited into conformity with a consistent present-day system of transliteration. The glosses added under the examples are intended merely as an aid to the reader. In the case of Akkadian forms (and the so-called 'stiff-forms' of place names) the grammatical glosses refer to the function of the underlying Hittite words.

²Laroche (1958) discusses the relative order of enclitics from a comparative Anatolian point of view and catalogues exceptions to the schema presented in Table 1.

³Two sentences in the annals of Muršiliš which illustrate clearly the biclausal origin of the 'go . . . v' constructions are

| | | | | | | |
|----|---------------------------|-----------------|---------------------------|-----------|-------|-----|
| a) | pa-ra-a-ma | KUR | ^{URU} Ka-a-ši-pa | pa-a-un | nu | KUR |
| | adv. -but | | acc.? | lsg.pret. | conn. | |
| | furthermore-but | | Kašipa | I went | and | |
| | ^{URU} Ka-a-ši-pa | ḫar-ni-in-ku-un | (KBo II 5 Obv. II 15-16) | | | |
| | acc. | lsg.pret. | | | | |
| | Kašipa | I destroyed | | | | |

'But furthermore I went to Kašipa and I destroyed Kašipa.'

b) nu pa-a-un KUR URU Tag-ga-aš-ta ḫar-ni-in-ku-un
 conn. lsg.pret. acc.? lsg.pret.
 and I went Taggašta I destroyed

(KBo II 5 Obv. II 5-6)

'And I went (and) destroyed Taggašta.'

These two examples differ only in that the first has two clearly delimited clauses with a nu joining the second to the first and the place name repeated in both, while the second example has no nu between the verbs and does not repeat the place name.

⁴The text KBo XVII 7 + IBoT III 135 has a similar sentence but with normal word order:

| | | | | |
|------------|-------------------|------------|---|---|
| ta | ki-i[š-ša-an me-] | e-ma-aḫ-ḫé | [|] |
| conn. adv. | | lsg.pres. | | |
| and | as follows | I speak | | |

| | | | |
|------------|---------|--------------|--------------------|
| [na-a]š-ta | LUGAL-i | SAL.LUGAL-ia | a-i[-in ḫa-a]-i-in |
| conn.-ptc. | dat. | dat. | -conj. acc. acc. |
| | king | queen | -and grief pain |

| | | |
|-----------------|------------|-----------|
| pit-tu-li-uš-ša | [da-a-aḫ-] | ḫu-un |
| acc. | -conj. | lsg.pret. |
| affliction | -and | I took |

(KBo XVII 7 + IBoT III 135 Rev. IV? 4'-6')

This example merely points to the optionality of verb-initial order in Hittite, although there are differences between it and ex. (22) which would lead one not to expect verb-initial order here. Among these differences are the presence of the paragraph divider between the verbum dicendi and what is said, and the fact that the king and queen are not addressed directly in the second clause.

⁵A copy of §74 has the two clauses reversed, but still retains -ma after the first of the two verbs (see Friedrich 1959:83 n. 8).

⁶The normal placement of a preverb in Hittite is either at the beginning of its clause or immediately before the verb it is associated with. The verb may be either in clause-final position or in a fronted position (cf. ex. [31]; this fact contradicts the pattern reconstructed by Watkins [1963, 1964], but is by no means inconsistent with his other results). If there is a sentence connective, then an otherwise clause-initial preverb must follow. The preverb and the stressed sentence connective both constitute left boundaries for verb fronting, as stated above. There is, however, one signal difference between them: while the stressed sentence connective is an absolutely inviolable left boundary, the preverb may under certain conditions follow a fronted verb. This phenomenon is extremely rare in Hittite, but its occurrence is sufficient to provide a tertium comparationis and thus ensure that the examples of anastrophe of preverb in Homer (see Chapter VI and Dunkel 1979) and of preverb following inflected verb in the Rig Veda are not merely poetic innovations, nor syntagms patterned after sequences of noun-postposition (so Watkins 1963, 1964). Sequences of sentence connective followed by finite verb, or of clause-initial preverb followed by finite verb result in apparent instances of the finite verb in Wackernagel's Law position. These instances are only apparent, however, and not real, as I hope is obvious from the discussion in this chapter and that in Chapter IV.

⁷On the date of the Madduwattaš text see Otten 1969 [1970]; no syntactic evidence has yet been offered for Middle Hittite, and I thus follow Laroche in not distinguishing it. For the purposes of word order, it is irrelevant whether one does or not.

⁸Güterbock is undoubtedly correct in this point. Although the external poetic forms of the Homeric corpus and of the Rig Veda are widely divergent from that of the Song of Ullikummi, from a syntactic point of view they too are characterized by large numbers of appositions to subjects and objects. This feature was, presumably, an Indo-European poetic device. I discuss the nature of these appositions in Chapter IV of the present work.

⁹One may, of course, note that enclitic sequences including both -aš and -an ('he' and 'him') seem to be avoided in Hittite (cf. Watkins 1963:42). Hence, one would not expect a 'proleptic' pronoun in these examples.

CHAPTER III

VERB-INITIAL SENTENCES IN OTHER INDO-EUROPEAN LANGUAGES

In the preceding chapter I attempted to isolate some of the conditions under which verb-initial (or modified initial) order is found in Hittite. In this chapter I will turn to certain other Indo-European languages in order to compare the conditions under which they show verb-initial order with those offered by the Hittite data. This comparison will demonstrate that the conditions isolated for Hittite are a subset of those found elsewhere, and that it is most natural to assume that the directionality of any change involved was from a Hittite-like situation to one of the type found elsewhere. Furthermore, the Hittite evidence shows clearly that the category recognized as modified initial position by some of the early Indo-Europeanists is in fact a variety of verb-initial order, and not Zweitstellung. In this chapter secondary literature will play a much larger role than in the preceding chapter for two simple reasons: first, problems of word order in 'classical' Indo-European have exercised scholars for rather more than a century; second, the use of categories for verb placement established by Delbrück, Brugmann, and Gonda will guard my observations from the charge of circularity.

Verb fronting, as stated in the preceding chapter, occurs only under certain limited conditions in Hittite and affects fewer than

3% of the verbs in the corpus investigated. In the other older Indo-European languages verb fronting is a much more frequent process and occurs under a wider variety of conditions than it does in Hittite.

The word order of Hieroglyphic Luwian is very similar to that of the other IE languages of Anatolia. Clauses often begin with particles, enclitics occupy the second position in the clause and the verb typically comes last (cf. Meriggi 1966:101ff.). The language has postpositions. In the following examples, I cite the text after Meriggi (1967) but use the modifications to the transliteration system proposed by J.D. Hawkins, A. Morpurgo-Davies, and G. Neumann (1973, cf. further Hawkins 1975, Davies 1975, Hawkins and Davies 1975, 1978).

Piero Meriggi (1951:98) gave a 'piccola statistica' in which he noted that of the fifty five clauses with verbs preserved in the three major inscriptions at Carchemish (A 11 a, b, and c) only three clauses have the verb in other than final position; all of these clauses contain relatives, and the verbs are in modified initial position. According to K. McCone (1979:473 with note 26), of the seventy-five clauses containing finite verbs in Carchemish Ala, Alb, A2, and A6 only two have non-final verbs. Both these clauses contain relatives and the verbs are in modified initial position:

- 1) à-wa/i i-zi-i-sa-ta-i REL-i-sa (Ala 32)
 conn.-ptc. 3sg.pres. who
 and-ptc. honors who

'And who honors (it).'

Otherwise the word order of these inscriptions is SOV:

- 2) à-wa/i . . -zi [á]-ma[-za a-tì]-ma-za á-mi-ja-ti
 conn.-ptc. ? acc. acc. abl.
 and -ptc. my name my
- IUSTITIA-na-ti DEUS TONITRUS-hu-za-sa DEUS SOL-wa/i-za-sa-ha
 abl. nom. nom. -conn.
 justice God Tarhunzas Sun God -and
- "CAELUM" ti-pa-si "PES₂" sa-nu-wa/i-ta-á (A6 2)
 dat.? 3pl.pret.
 to heaven made go

'And my name because of my justice God Tarhunzas and the Sun God made go to heaven.'

In the Karetepe Bilingual, there are a number of clauses which have the finite verb in a position other than clause final. The postverbal amplifications in this inscription have recently been discussed by K. McCone (1979).¹ I will, therefore, devote my attention here to clauses with initial verbs. Verbs which show subject switch, are emphatic or contrastive, or are imperatives account for almost all of the examples of clause-initial verbs in this inscription.

- 3) ^Kar-ha-ha-wà ^KLA+ZA-nu-ha ^Ka-dan-wa-n URBS
 prev.-conj.-ptc. lsg.pret. acc.
 prev.-and-ptc. I revived? Adanwa
- "MANUS"la-tar-ha-ha-wà ^Ka-dan-wa-za URBS
 lsg.pret.-conj.-ptc. acc.
 I extended Adanwanian
- ^K"TERRA"-wà+r-za ^Kzi-n ^KOCCIDENS i-pa-mi ^KVERSUS-ja-n
 acc. acc. dat. postpos.
 plain this West towards

| | | |
|-----------------------|-----------------------------------|---------------------------------------|
| ^K zi-pa-wà | ^K ORIENS ki-sa-ta-mi-i | ^K VERSUS-ja-n (Karatepe V) |
| acc.-ptc.-ptc. | dat. | postpos. |
| this-ptc.-ptc. | East | towards |

'And I revived Adanwa and I extended the Adanwanian plain,
this towards the West and this towards the East.'

The pair of coordinated verbs describes actions taken after the God Tarhu(n)za made Azatiwatas 'father and mother to Adanwa' (as the preceding clause states). The actions taken are simultaneous and are closely related; there is also subject switch between these clauses and the immediately preceding one. The first verb of this pair is in modified initial position after a preverb and enclitics, while the second is in absolute initial position.

| | |
|---------------------------|--------------------------------------|
| 4) "MANUS" su-wà-ha-ha-wà | ^K pa-há+r-wa/i-ní-za URBS |
| lsg.pret.-conj.-ptc. | acc. |
| I filled-and-ptc. | Paharwanian |

| |
|--|
| ^K "255L" ka-ru-na-zi (Karatepe VII) |
| acc. |
| granaries |

'And I filled the granaries of Pahar.'

Again, there is subject switch between the preceding clause and this example.

| | | | | | |
|------------|-------|-------|--------------|-------------|-------------------|
| 5) wa/i-ta | ARHA | MANUS | i-ti-tu | CAELUM DEUS | TONITRUS-hu-za-sá |
| ptc.-ptc. | prev. | | 3pl.imptv. | | nom. |
| ptc.-ptc. | prev. | | delete/erase | | God Tarhunzas |

| | | | | |
|-------------|-----------|------|---------|----------------|
| CAELUM DEUS | SOL-za-sá | DEUS | i-ja-sá | OMNIS.MI-zi-ha |
| nom. | nom. | nom. | nom. | -conn. |
| Sun God | God Ea | all | | -and |

| | | | | | |
|------------|------|-----------|------------|----------|-----------------|
| DEUS-ní-zi | á-pa | REX-hi-sá | á-pa-ha | "REX"-na | á-pa-ha-wa/i |
| nom. | acc. | acc. | acc.-conn. | acc. | acc.-conn.-ptc. |
| Gods | that | kingdom | that-and | king | that-and-ptc. |

CAPUT-ti-na (Karatepe LXXIII, cited after Hawkins and Morpurgo-
acc. Davies 1975)
person

'May Tarhunzas of Heaven, the Sun of Heaven, Ea and all the gods
delete that kingdom and that king and that man.'

The sentence contains an imperative in modified initial position, preceded by a sentence particle and a preverb. In the remainder of the Karatepe Bilingual, there are ten examples of postverbal elements; two are appositions to subjects (II and XX). Only two have following objects, and two have postposed infinitives (XL and XXXIV). The remainder have postverbal datives or postpositional phrases. Examples of absolute initial verbs are found at V, VII, XXV, LII, and LI. Examples of modified initial verb placement occur at IV, XLIX, LV, LVIII, LX, LXIII, LXVI, LXXIII, and LXXIV. The two sequences of NEG₂-wa-REL have the finite verb immediately following (XXVI, XXI). There are thirty-five clauses with final verbs.

Hieroglyphic Luwian is a sister language of Hittite, attested at a later date. It is interesting to note that it preserves the typical Anatolian sentence patterns. The significant difference vis à vis Hittite is the freedom with which verbs are placed in initial or modified initial position. Some of this freedom must undoubtedly be due to Semitic influence. What is striking about Hieroglyphic Luwian, however, is that the changes in regard to initial placement of the verb take place in exactly the same way in which they do in the other Indo-European languages.

Jan Gonda concluded a series of 'Remarques sur la place du verbe dans la phrase active et moyenne en langue sanscrite' (1952) with a listing of categories for verb initial placement. Although in the majority of the texts Gonda investigated final position of the verb is 'la plus usuelle' and initial position of the verb 'n'est jamais prédominante', verb initial sentences frequently occur. The categories for which this placement of the verb is appropriate are the following:

- a) the sentence begins with an imperative
- b) the sentence begins with ásti 'there is, exists'
- c) the sentence begins with a verb expressing the notion of 'knowing' (particularly 1st. person singular)
- d) the sentence begins with a future verb or another form expressing an intention of the speaker
- e) the (fronted) verb is in an apodosis
- f) the sentence is closely connected with the preceding sentence (Anschlussstellung, including cases of opposition)
- g) the idea of the verb, or its affirmative character, are emphasized
- h) the sentence is interrogative, notably without particles or interrogative pronouns
- i) the sentence is exclamatory or affective in general
- j) in certain texts the verb is at the beginning of concessive sentences
- k) in certain texts the verb is at the beginning of the sentence when it is a question of simultaneous actions or of actions which

immediately succeed each other, including cases of introduction of a new situation or stage of the narrative ('fortschreitende Erzählung').

Gonda points out that none of these categories obligatorily has initial order and that there is a great deal of stylistic variation from one text to the next. As is the case for any such categorization, there can be no rigid boundaries between the various categories; for example, category (e) seems merely to be a subclass of (f), while (c), (d), and (g) all seem to be subvariants of the same general notion, and in (h) the interrogation would have to be on the finite verb, thus implying emphasis.²

Avestan evidence for verb-initial position is often merely alluded to, without detailed investigation of lengthy portions of text. I have looked at Yasna 28, 29, 30, all of Yasna 9, all of Yašt 10, and substantial portions of Yašt 5. From Y. 28 I cite examples of verb initial placement for imperatives and a possible example of an interrogated verb in modified initial position:

- 6) dāidī ašā dā darəgāiiū (Y. 28.6)
 2sg.imptv. voc. acc. acc.
 give O Aša gift long-lasting

'Give O Aša a long-lasting gift.'

- 7) dāidī ašā tam ašim vaṇhōuš āiiaptā manəṇhō
 2sg.imptv.voc. acc. acc. gen. acc. gen.
 give Aša this lot good rewards thought
- dāidī tū ārmaitē vištāspāi iṣəm maibiiācā
 2sg.imptv.nom. voc. dat. acc. dat. -conj.
 give: you O piety Vištāspa power to me-and

dāstū mazdā xšaiiācā yā vē maθrā
 2sg.inj.-nom. voc. 2sg.pres.-conj. instr. gen. instr.
 give-you Mazda you govern-and which your spell

srəuuīmā rādā (Y. 28.7)
 lpl.opt. acc.
 would hear gifts

'Gib, O Wahrhaftigkeit, diesen Anteil, die Glücksgüter des
 guten Gedankens!
 Gib du, O Gemässheit, dem Vištāspa Kraft und mir!
 Gib, O Kundiger, und gebiete durch den Zauberspruch, durch
 den wir eure huldvollen Anordnungen vernehmen mögen!'
 (Humbach 1959)

8) ašā kaṭ θβā darəsanī (Y. 28.5)
 voc. ptc. acc. lsg.pres.
 Asa ptc. you I see

'Asa, will I see you?'

Example (8) has the verb in modified initial position, since kaṭ
 always occupies sentence-initial position, and θβā is an enclitic.

From Yasna 29 I cite the following:

9) aṭ ē vaocat ahurō mazdā viduuā vafūš
 ptc. nom. 3sg.aor. nom. nom. nom. acc.
 and he spoke Ahura Mazda knowing secret sayings

viiānaiiā (Y. 29.6)
 instr.
 wisdom

'And he, Ahura Mazda, spoke, knowing (secret) sayings through
 his wisdom.'

In this example, the enclitic nominative pronoun ē is used pro-
 leptically; the verb is in modified initial position. Yasna 30 con-
 tains two instances of imperative verb forms in clause-initial posi-
 tion as well as another example of a verb in modified initial position:

- 10) sraotā gəuṣāiš vahištā auuaēnatā sūčā manaḡhā (Y. 30.2)
 2pl.imptv. instr. acc. 2pl.imptv. instr. instr.
 hear with ears best see radiant mind

'Hear the best with (your) ears, see with radiant mind . . . '

- 11) aṭ tā vaxšiiā iṣəntō (Y. 30.1)
 ptc. acc. lsg.fut. voc.
 and those I will say desiring to go

'Die will Ich verkünden, ihr Herankommenden.'

In ex. (11) the pronoun tā which would normally appear in clause-initial position has to be in second position because of aṭ.

In the Hōm Yašt (Yasna 9) there is only one clear example of finite verbs at the very beginning of the clause:

- 12) tafsaṭca hō mairiiō xīsaṭca (Y. 9.11)
 3sg.impf.-conj. nom. nom. 3sg.impf.-conj.
 become hot-and the deceiver began to sweat-and

'The deceiver became hot and began to sweat.'

These two coordinated verbs denote actions occurring in close succession after the lighting of a fire. The other examples of verb-initial order from this text have the verb in modified initial placement:

- 13) ā.dim pərəsaṭ zaraθuštrō (Y. 9.1)
 prev.-acc. 3sg.impf. nom.
 prev.-him asked Zarathustra

'Zarathustra asked him.'

- 14) ā.mam yāsaḡuha spitama frā.mam hunuuḡuha
 prev.-acc. 2sg.imptv. voc. prev.-acc. 2sg.imptv.
 prev.-me obtain O Spitamid forth-me press.

xāratēe (Y. 9.2)
 dat.
 to drink

'Obtain me O Spitamid press me forth for drinking.'

15) aaṭ aoxta zaraθuštrō (Y. 9.3, cf. Y. 9.16)
 ptc. 3sg.aor. nom.
 then spoke Zarathustra

'Then spoke Zarathustra.'

Three of these four clauses begin with a preverb and enclitic pronoun sequence, with the finite verb as close to the beginning of the clause as possible. The fourth has a sentence connective immediately followed by the finite verb. In such examples as the following, the verbs are less obviously in modified initial position:

16) ciṭ ahmāi jasaṭ āiiaptəm (Y. 9.3, cf. Y. 9.6, 9.9, 9.12)
 nom. dat. 3sg.imptv. nom.
 what him came boon

'What boon came to him?'

17) taṭ ahmāi jasaṭ āiiaptəm (Y. 9.4, cf. Y. 9.6, 9.7, 9.10,
 nom. dat. 3sg.imptv.nom. 9.13)
 that him came boon

'That boon came to him.'

Yet in (16) the first word is an interrogative which invariably stands first in its clause, and ahmāi is clearly enclitic. Ex. (17) answers the question asked earlier. Forms of ha-, hā, and taṭ usually stand at the head of their clause, especially so when they have both anaphoric and cataphoric function. In the example of this type, taṭ not only refers back to the original question, but also

serves to announce a following yaṭ clause which is epexegetic to āiiaptəm.³ One such yaṭ clause has the finite verb immediately following the yaṭ:

18) yaṭ kərənaoṭ aiṅhe xšaθrāda amaršəṅta pasu vīra
 conj. 3sg. impf. gen. abl. acc. acc. acc.
 that he made his reign immortal animals men

aṅhaošəṃne āpa uruuaire . . . (Y. 9.4)
 acc. acc. acc.
 undrying waters plants

'that he would make through his reign animals (and) men immortal,
 waters (and) plants undrying . . . '

Since this conjunction is obligatorily clause initial, the finite verb must be regarded as being in modified initial position. Two further examples from this text have the finite verb immediately after a clause-initial 'relative' pronoun (Benveniste 1957-1958, Seiler 1960):

19) yō janaṭ ažiṃ dahākəm (Y. 9.8)
 nom. 3sg. impf. acc. acc.
 who killed Aži Dahāka

'who killed Aži Dahāka'

20) yo janaṭ ažiṃ sruuarəm (Y. 9.11)
 nom. 3sg. impf. acc. acc.
 who killed Aži Srubara

'who killed Aži Srubara'

In this type of non-restrictive (or appositional) relative the pronoun obligatorily stands at the head of the clause it occurs in; hence any immediately following verb is in modified initial position.

In the Hymn to Mithra there are relatively few examples of finite verbs in absolute initial position, but relatively many in modified initial position. Typical examples of the first category

are provided by (21) and (22):

- 21) mərəŋcaite vīspam daiŋhaom mairiiō miθrō.druxš (Yt. 10. 2)
 3sg.pres. acc. acc. nom. nom.
 destroys all region false Mithra-deceiver

'The false Mithra-deceiver destroys the entire region.'

- 22) bərəjiaiaṭ ahurō mazdā bərəjiaien aməšā spənta yeŋhā
 3sg.impf. nom. nom. 3pl.impf. nom. nom. gen.
 paid homage Ahura Mazda paid homage immortal holy which

kəhrpō huraoḍaiiā (Yt. 10. 90)
 gen. gen.
 body beautiful

'Ahura Mazda paid homage, the Holy Immortals paid homage to
 which beautiful body (=to the beautiful body of him who . . .).'

There is subject switch between (21) and the clause that precedes it; in (22) the clauses are asyndetically linked. Other instances of verb-initial order are found in Yt. 10 at 1, 32 (2X), 33, 75 (2X), 89 (2X), 128, 129, 130, 131 (2X), 132, 140. Typical examples of verbs in modified initial position are given in the following:

- 23) paiti.dim pərəsaṭ zaraθuštrō (Yt. 10. 121)
 prev.-acc. 3sg.impf. nom.
 prev.-him questioned Zarathustra

'Zarathustra questioned him.'

- 24) āaṭ mraoṭ ahurō mazdā (Yt. 10. 122)
 conn. 3sg.impf. nom. nom.
 and spoke Ahura Mazda

'And Ahura Mazda spoke.'

- 25) āca.θβā zbaiiāi auuaiŋhe (Yt. 10. 77)
 prev.-conn.-acc. 1sg.pres. dat.
 here-and-you I call for help

'And I call you here for help.'

- 26) aṭciṭ.dim nōiṭ rāšaiēnte frēna ayanam maθranam (Yt. 10. 21)
 conn.-ptc.-acc. neg. 3pl.pres. instr. gen. gen.
 and-ptc.-him not they harm number evil spells

'And they do not harm him through the number of evil spells . . . '

In exx. (23) and (25) the finite verb occurs after a sequence of preverb and enclitic pronoun, while in exx. (24) and (26) the finite verb occurs after a sentence connective. In the latter example a total of four elements occur before the finite verb, yet it still must be considered to be in modified initial position by virtue of the fact that these elements cannot occur elsewhere in the clause. Other examples of this order type are found in this text at 1, 5 (8X), 6 (2X), 7, 8, 10, 11, 12, 18 (2X), 21, 33, 66, 75, 77, 78 (2X), 87, 88, 89, 91, 108, 109, 111, 113, 137, 138, 139. All of these examples fall into the categories listed above.

Yašt 5 has an extremely repetitive structure; therefore, I have investigated only a small portion of it. As a typical example of initial verb placement I cite (27):

- 27) yazaēša mē hīm, spitama zaraθuštra, yaṃ arəduuīm . . .
 2sg.opt. dat. acc. voc. voc. acc.acc.
 worship me her O Spitamid Zarathustra the Ardvi . . .

(Yt. 5. 1)

'Worship her for me, O Zarathustra the Spitamid, the Ardvi . . . '

(There follow eighteen further accusatives; this formula is repeated at least twenty-nine times in this text.) This example is reminiscent of ex. (51) in Chapter II, since it contains an accusative proleptic

pronoun after a fronted verb, with a series of appositional fully stressed forms following. Modified initial placement is illustrated by the verb in ex. (28):

28) yaṭ hīś aoi fražgaraiti arəduuī sūra anāhita (Yt. 5. 4)
 conj. acc. prev. 3sg.pres. nom. nom. nom.
 when them over flows forth moist swelling spotless

'When the moist, swelling, spotless one flows forth over them.'

Again, in this example the compound finite verb is as close to the beginning of the clause as it can be; it is preceded by a conjunction, an enclitic object pronoun and a further preverb. In the first thirty sections of this text there are thirteen further examples of verb-initial (or modified initial) order, all of which fall into one or another of the categories listed above.

Wolfgang Dressler has recently investigated the conditions under which verb-initial order is found in a range of early IE languages. He seeks to demonstrate that

1. Im Idg. und in den meisten altidg. Sprachen ist in einem texthomonymen, nicht-emphatischen einfachen Aussagesatz AST [Anfangsstellung] regelwidrig. 2. AST ist textuell kataphorisch oder (viel häufiger) anaphorisch und charakterisiert als WSt [Wortstellungs]-Variante textuell gebundene Sätze (1969:3).

My results are thoroughly consistent with his, although I do not believe that all the categories traditionally recognized for this word order type can be reconstructed to Proto-Indo-European.

NOTES TO CHAPTER III

¹A serious methodological flaw in McCone's analysis is that he does not distinguish between clauses with postverbal material and those with verbs in modified initial position. Since clauses with initial verbs easily outnumber clauses with postverbal material, a diachronic tendency at least as important as the one he is anxious to establish has been left out of consideration.

²The examples cited by Gonda (1952:14-15) from the Chāndogya and Bṛhadāraṇyaka Upaniṣads to establish (h) are not convincing because most include particles which may be taken with the verb, e.g.

a) abravīt tu te tasyāyatanam pratiṣṭhām (BĀrU. 6.2.2)
 3sg.impf. ptc. dat. gen. -acc. acc.
 he said but to you its -seat abode

'But he told you its abode (and) seat?'

Gonda's example from BĀrU. 3.3.2 is not a question at all. In the following example, the interrogation falls on an existential verb (presumably clause initial because it is existential):

b) asti bhagavo namno bhuya iti (ChU. 7.1.5)
 3sg.pres. voc. gen./abl. nom. ptc.
 is O worshipful one name more ptc.

'Is there something more than name?'

³This pronoun is on its way to becoming a definite article, although the process is not complete. Structures of the type

described here have a close parallel in Homeric Greek where there is as yet no full-fledged definite article, but where nouns are often marked by ho, hē, tó if they have an appositional clause or infinitive phrase following, cf. for example:

| | | | | | | |
|------------|------------|--------|---------|------|---------|--------|
| básk' | íthi | Íri | takheĩa | tòn | Héktori | mũthon |
| 2sg.imptv. | 2sg.imptv. | voc. | nom. | acc. | dat. | acc. |
| go | go | O Iris | swift | this | Hector | word |

| | | | | | | |
|------------|-------|------|------|------|-----------|------------|
| enĩspes | óphra | àn | mén | ken | horãi | Agamémnona |
| 2sg.imptv. | conj. | ptc. | ptc. | ptc. | 3sg.pres. | acc. |
| speak | while | ptc. | ptc. | ptc. | he sees | Agamemnon |

| | | |
|------------------------|------------|-----------------|
| poiména | laõn . . . | (Il. 11.186ff.) |
| acc. | gen. | |
| shepherd of the people | | |

'Go swift Iris, speak to Hector this word (namely) while he sees Agamemnon, shepherd of the people . . . '

The series of clauses that begins at óphra is appositional to tòn mũthon. I propose to treat this topic in detail elsewhere.

CHAPTER IV

POST VERBAL ELEMENTS

Berthold Delbrück found in his Die Altindische Wortfolge aus dem Catapathabrāhmaṇa dargestellt (1878) that the normal placement of the finite verb was at the end of its clause. In a separate section of the work, engagingly titled 'Der Satz hat eine Schleppe', Delbrück described sentences from this text which contained further elements after the (non-fronted) finite verb. The principal categories which he isolated may be illustrated by the following examples (maintaining Delbrück's order of presentation):

- 1) sá hovāca Gārgyaḥ (ŚB 14.5.1ff.)
 pron. ptc.-3sg.pf. nom.
 he ptc.-spoke Gargya

'And Gārgya spoke.'

- 2) yá evá devānāṃ hótā tám evāgre prá
 nom. ptc. gen. nom. acc. ptc.-loc. prev.
 who just of gods priest him just-in beginning

 vṛñīte, Agním evá (ŚB 1.5.1.4)
 3sg.pres. acc. ptc.
 he chooses Agni just

'Who (is) priest of the gods, him he chooses at first, namely Agni.'

Delbrück notes à propos of the first example that

Die Erklärung dieser Wortstellung ist einleuchtend: das Subject, welches bekannt und erwartet ist, ist schwach betont und kann deswegen den Ehrenplatz, den sonst das Subject hat, nicht behaupten. Man deutet das Subject an durch ein Pronomen, eilt sofort zum Verbum und liefert nun erst das Subject nach (1878:52).

Delbrück states that this type of word order is also found without an annunciatory sá (1878:53):

- 3) átha hovāca Somaśuṣmaḥ (ŚB 11.6.2.3)
 then ptc.-3sg.pf. nom.
 then spoke Somaśuṣma

'Then Somaśuṣma spoke.'

- 4) tád u hovāca Yājñavalkyaḥ (ŚB 1.3.1.21)
 then ptc. ptc.-3sg.pf. nom.
 then ptc. spoke Yājñavalkya

'Then Yājñavalkya spoke.'

In all instances it is a known subject (or object) which is postposed to the verb.

Another basic category of 'Schleppen' described by Delbrück contains new information added to a complete sentence, either as a further modification of a single word in the sentence, or as an addition to the entire clause:

- 5) só 'rcañ śrāmyañś cacāra prajākāmaḥ
 nom. nom. nom. 3sg.pf. nom.
 he praying practicing austerity wandered desiring offspring
 (ŚB 1.8.1.7)

'He wandered praying, practicing austerity, desiring offspring.'

Delbrück remarks on this example that 'Das Adjectivum ist so viel werth wie ein Nebensatz, und darin liegt der Grund der Sonderstellung (1878:54-55). In the following example, according to Delbrück, the final dative (resp. infinitive) is an addition to the entire sentence:

- 6) tát paśún evāsmā etāt pári dadāti gúptyai
 thus acc. ptc.-dat. adv. prev. 3sg.pres. dat.
 thus animals to him now prev. gives for guarding

(ŚB 2.4.1.5)

'Thus he gives him the animals now for guarding.'

Yet another category is provided by the conjoining of further nouns using ca 'and' to mark the connection:

- 7) Yajñéna ha sma vaí tád devāḥ kalpayante yád eṣām
 instr. ptc. ptc. ptc. that nom. 3pl.pres. nom. gen.
 sacrifice ptc. ptc. ptc. that gods bring about what for them
- kálpam áśa ṛṣayaś ca (ŚB 2.4.3.3)
 nom. 3sg.pf. nom.pl. and
 possible was ṛṣis and

'For through sacrifice the gods bring about that which was possible for them and ṛṣis.'

Delbrück states that the phrase ṛṣayaś ca functions as an 'abgekürzter Satz.'

The final class of postverbal elements recognized by Delbrück consists of sentences in which an element has been postposed to the finite verb in order to provide a link to an immediately subsequent clause:

- 8) ṛtávo mugdhá āsan páñca, tán etābhir evá
 nom. nom. 3pl.impf. nom. acc. instr. ptc.
 seasons lost were five them/which these ptc.
- pañcābhir devātābhiḥ prājānan (ŚB 3.2.3.13)
 instr. instr. prev.-3pl.impf.
 five divinities found

'The lost seasons were five, which through these five divinities they found.'

Delbrück's notion of 'Schleppe' is based on the fundamental belief that the regular place of the finite verb is at the end of the clause. Other scholars, for example Hirt (1937:259), who did not accept Delbrück's views on verb placement, also did not accept his 'Schleppen'.

Delbrück's idea was taken up again and investigated more fully by Jan Gonda (1959; cf. also 1952:67ff.). Gonda renamed the post-verbal elements 'amplifications' and defined amplified sentences as 'from their beginning until the verb complete in themselves and all the words following the verb may be left out without mutilating the sentence' (1959:7); furthermore, this term is 'intended to cover any extension of the scheme subj. obj. (obj. subj.) + verb by a term or groups or combinations of terms following the verb' (1959:9). Gonda also believes that these constructions 'were already features of the syntax of the original Indo-European' (1959:10; cf. also 1952:71ff.).

The amplifications discussed by Gonda fall into a few major groups. First are the so-called 'final datives':

- 9) trivṛtam eva vajraṃ sambhṛtya bhrātṛvyāya pra harati
 acc. ptc. acc. gerund dat. prev. 3sg.pres.
 threefold just bolt making enemy prev. hurls

stṛtyai (TS. 5.2.6.3)
 'dat.'
 to lay low

'Having made the threefold bolt, he hurls it at his enemy, to lay (him) low.'

Gonda comments à propos of this example: 'This dative being loosely connected with the sentence is clearly an addition, an amplification, added to a sentence which is complete in itself' (1959:11).

- 10) tryuddhiṃ karoti traya ime lokā eṣāṃ lokānāṃ
 acc. 3sg.pres. nom. nom. nom. gen. gen.
 three-stranded he makes three these worlds of these worlds

āptyai (TS. 5.1.6.4)
 'dat.'
 to obtain

'Three-stranded he makes (it), three (are) these worlds, to obtain these worlds.'

Gonda notes that

it is already sufficiently clear that instead of a simple dative of purpose word groups governed by such a dative, and even combinations of these syntagmas may be added to an otherwise complete sentence. It seems to be equally plain that this position of such an additional dative or dative group, which while joining the entire sentence indicates the aim or purpose contained in it, is completely natural' (1959:11).

Further, end position 'is in harmony with a favorite position of the final dative and of the infinitives arising from this case in other languages' as in Avestan:

- 11) yō yazaitē huarə paitištātē təmagham (Yt. 6.4)
 nom. 3sg.pres. acc. dat. gen.
 who worships sun resistance darkness

'Who worships the sun to resist darkness.'

and Greek:

- 12) ὄρτο d'epì ligùs oũros aémenai
 3sg.aor. ptc. nom. nom. inf.
 was roused ptc. sharp wind to blow

'A sharp wind was aroused to blow.'

Gonda further cites the following example in order to show that a dative used in these sentences, i.e., a so-called infinitive dative, is nothing but a 'final dative' (1959:12):

- 13) ūrdhvas tiṣṭhā na ūtaye (RV. 1.30.6)
 nom. 2sg.imptv. gen. dat.
 upright stand us to help

'Stand upright to help us.'

As Gonda points out, the end position of these final datives is only one possibility of placement; such datives may also occur to the left of the verb:

- 14) saptarṣáyaḥ tápase yé niṣedúḥ (RV. 10.109.4)
 nom. dat. nom. 3pl.pf.
 seven sages for austerity who sat down

'Seven sages who sat down for austerity (= in order to practice austerity).'

- 15) devāñ ā vitāye vaha (RV. 5.26.2)
 acc. prev. dat. 2sg. impvtv.
 gods here feast convey

'Convey the gods here to feast.'

Yet another class of final datives occurs after the verb $\sqrt{\text{śak}}$ 'be able':

- 16) sa . . . śabdāñ chaknuyād grahaṇāya (BĀrU. 2.4.7)
 nom. acc. 3sg. opt. dat.
 he sounds would be able pronouncing

'He would be able to pronounce sounds. . . .'

Another infinitive-like category shows frequent final placement, namely supines in -tum and -am (Gonda 1959:15):

- 17) ko hi tvaivam bruvantam arhati pratyākhyātum
 nom. ptc. acc.-ptc. acc. 3sg. pres. inf.
 who for you-thus speaking is able to refuse

(BĀrU. 6.2.8)

'For who is able to refuse you speaking thus.'

- 18) úpo emi cikitúšo vipṛçham (RV. 7.86.3)
 prev.-ptc. 1sg. pres. acc. acc.
 prev.-ptc. I go wise to ask

'I go to the wise to inquire.'

The other categories discussed by Gonda are more strictly nominals.

These include postposing predicative accusatives and nominatives if another is present:

- 19) agníṃ manye pitáram (RV. 10.7.3)
 acc. 1sg. pres. acc.
 Agni I regard father

'I regard Agni (as) father.'

Long appositions are postposed; so, too, are similes and comparisons. In other examples, prepositional phrases and adverbials are placed after the finite verb.

Another particularly important category consists of multiple word objects. In this instance, the first word of a sequence is placed before the finite verb, while the remainder of the sequence is placed after it (Gonda 1959:36ff.):

- 20) prajāpatir devān asṛjata vasūn rudrān ādityān (JB. 2.141)
 nom. acc. 3sg.impf. acc. acc. acc.
 Prajāpati gods created Vasus Rudras Adityas

'Prajāpati created the gods, Vasus, Rudras, Adityas.'

- 21) tasmin ma indro rucim ā dadhātu
 loc. gen./dat. nom. acc. prev. 3sg.imptv.
 in him for me Indra light, splendor prev. place

prajāpatiḥ savitā somo agniḥ
 nom. nom. nom. nom.
 Prajāpati Savitr Soma Agni

'In him let Indra place splendor for us, (likewise) Prajāpati, Savitr, Soma, Agni.'

- 22) athāntataḥ prajātim āśāste gavām asvānām
 conj.-adv. acc. prev.-3sg.pres. gen. gen.
 then-finally procreation he asks cows horses

puruṣānām (AiB. 8.11.5)
 gen.
 men

'Then finally he asks for procreation of cows, of horses, of men.'

The last category to be mentioned here is that consisting of nominative personal pronouns:

23) viśva hy agne duritā tara tvam (AV. 2.6.5)
 acc. ptc. voc. acc. 2sg.imptv. nom.
 all please O Agni difficulties cross you

'Do you, O Agni, overcome all difficulties.'

It is no difficult task to find parallels for all these types of amplification in the older Indo-European languages: Gonda himself cites a number of examples from Greek, Latin, and Avestan; still others could be added. This situation doubtless led Gonda to maintain that such amplifications existed also in the parent language. There are, however, three serious limitations to Gonda's essay. First, the definitions given of amplified sentence are inconsistent: on the one hand, although many of the postverbal elements can be left out without 'mutilating the sentence', others cannot. This is particularly the case when the postverbal elements are infinitives after such verbs as $\sqrt{\text{śak}}$ or $\sqrt{\text{arh}}$ 'be able to', or infinitive-like datives. (I will return to this point below.) This is also the case when there are two accusatives, one of which is in a predicative relation to the other. Gonda's second definition, on the other hand, is purely formal, i.e., an amplification is anything that occurs after the sequence subj. + obj. + verb (or obj. + subj. + verb). Presumably this schema is to be understood as a kind of surface case template: nom. + acc. + verb. Second, although Gonda cites parallels from Greek, Latin and Avestan among older Indo-European languages, he does not cite any Hittite parallels to the amplified sentence types described. It is necessary to present typical Hittite evidence for this construction type before one can

argue for the existence of amplifications in PIE. Third, Gonda has no diachronic perspective on this problem. Even from a purely synchronic point of view, questions are ignored which could shed light on this phenomenon. One such question is the extent to which postverbal material may be the result of other processes, for example, verb fronting.

Postverbal material in Hittite occurs very infrequently in comparison with the Old Indic evidence cited by Gonda, and in comparison with Early Greek (see below). Furthermore, the range of categories in which postverbal elements are found in Hittite is much more limited than it is in Old Indic. In the following section, I will give examples of postverbal material in Hittite, using the same texts as in Chapter II.

Typical Old Hittite examples of postverbal amplifications are provided by the following clauses from a ritual for the royal couple:

- 24) DUMU.É.[(GA)]L šu-up-pí ya-a-tar pa-ra-a e-ep-zi [(LUGAL)]-i
 nom. acc. acc. prev. 3sg.pres. dat.
 palace noble pure water prev. offers to the king

SAL.LUGAL-ia (StBoT 8 Obv. I 14'-15')
 dat.-conn.
 to the queen-and

'The palace noble offers pure water to the king and to the queen.'

- 25) 2 D_hā-an-ta-še-pu-uš ḫar-ya-ni GI[(š-aš)]
 acc. acc. lpl.pres. gen.
 two ḫantašepa-divinities we hold of wood

(StBoT 8 Obv. I 22')

'We hold two ḫantašepa-divinities of wood.'

26) nu-mu SAL.LUGAL 5 ga-a-pí-na-an TUR.TUR pa-a-i
 conn.-dat. nom. acc. acc. acc. 3sg.pres.
 and-to me queen five thread small gives

1 BABBAR 1 GE₆ 1 SA₅ [1] SIG₇.SI[G₇] ù
 acc. acc. acc. acc. acc. acc. acc. acc. conj.
 one white one black one red one green and

1 SÍG ZA.GÌN (StBoT 8 Rev. IV 15-16)
 acc. acc.? acc.
 one woolen blue

'And the queen gives to me five small thread(s), one white,
 one black, one red, [one] green and one woolen blue [one].'

Ex. (24) shows a postverbal dative phrase, while (25) has a one-word postverbal genitive modifier. The usual position of genitives in Hittite is before the nouns they depend from. In ex. (26) there is a long string of postverbal accusatives; they are all further specifications of the preverbal accusative object, which already has two modifiers. An example from this text shows a difficulty that occasionally arises in deciding whether material is a postverbal amplification or an independent sentence:

27) a]n-da-ma nam-ma 2 GAL la-a-le-eš AN.BA[R an-da
 prev.-ptc. adv. nom. hom. nom. gen.? prev.
 in-but furthermore two large tongues of iron in

DUMU.É.GAL pi-e-ta-i 1^{EN} A-NA LU[GAL 1^{EN} A-NA SAL.LUGAL
 nom. 3sg.pres. acc. dat. acc. dat.
 palace noble brings one for king one queen

(StBoT 8 Nr. 2 Obv. I 4'-5')

'But further two large tongues of iron . . . the palace noble
 brings in one to/for the ki[ng one to/for the queen].'

In ex. (27) the postverbal material is clearly a further specification of the two iron tongues. Because the line in which la-a-le-eš

'tongues' (nom.) occurs is too fragmentary for one to be able to infer its exact grammatical structure, and because the beginning of line 5' is not necessarily the beginning of a new clause, it is unclear whether it should be translated 'the palace noble brings in one [sc. tongue] to/for the king, one to/for the queen' or 'the palace noble brings [them (=the tongues)] in, one to/for the king, one to/for the queen.' If the clause is taken in the first way, it has a SVO structure, while if it is taken in the second, it contains an apposition to an implied object. The postverbal placement of dative phrases is very rare. The ordinary placement of these phrases is shown by the following examples from this text:

- 28) DUMU.É.GAL-iš^D Ḫa-an-t[a-š]e-pa-an LUGAL-i ki-iš-ša-ri
 nom. acc. dat. dat.
 palace noble Ḫantašepa-divinity king hand

da-a-i (StBoT 8 Obv. I 28')
 3sg.pres.
 puts

'The palace noble places a Ḫantašepa-divinity in the king's hand' (lit. 'to the king, to the hand').

- 29) ^DUTU-uš^D ^DIŠKUR-aš ka-a-š[(a LU)]GAL-i SAL.LUGAL-ri
 nom. nom. ptc. dat. dat.
 sun god weather god behold king queen

DUMU^{MEŠ}-ma-aš-ša^{URU} Ḫa-at-tu-ši e-er-ma-aš-me-et
 dat.-poss.-conj. loc. acc. -poss.
 sons-their-and in Ḫattuša sickness -their

e-eš-ḫ[(ar-š)]a-me-et i-da-a-lu-uš-me-et ḫa-tu-ka-aš-me-et
 acc. -poss. acc. -poss. acc. -poss.
 bloody deed -their evil -their terror -their

ḫa-ri-[(e-nu-u)]n (StBoT 8 Rev. III 10-12)
 1sg.pret.
 I buried

'Sungod, Weathergod, behold, I have buried for the king, queen and their children in Ĝattuša their sickness, their bloody deed, their evil (and) their terror.'

In the Anitta text and in the Zalpa text (StBoT 17), I found no examples of postverbal material. Further examples of postverbal material in the older texts investigated are to be found in the Laws:

- 30) ù 4 SAG.DU pa-a-i LÚ-na-ku SAL-na-ku
 conj. acc. acc. 3sg.pres. acc.-conj. acc.-conj.
 and four persons he gives man-or woman-or

(Laws Tablet I,I 2 §1; cf. also Tablet I,I 5)

'And he gives four persons, man or woman.'

- 31) [tak-ku LÚ-a]n na-aš-ma SAL-an EL-LAM ua-al-aḥ-zi ku-iš-[k]i
 conj. acc. conj. acc. acc. 3sg.pres. nom.
 if man or woman free strikes someone

(Laws Tablet I,I 6)

'If someone strikes a free man or woman.'

In the first of these two examples, an appositive phrase follows the verb; the direct object is already specified by the phrase for 'four persons', and the apposition merely further states that either men or women will do. It is a real afterthought. In the second, an indefinite agent follows the finite verb. The sequence (takku) . . . V kuiški 'if . . . V anyone' is found in only two other places in this text, at Tab. I col. IV, 18 and Tab. II, 6 (fragmentary context, no takku). However, in view of the fact that the normal pattern takku . . . kuiški V is found 134 times (by my count) and that there is no palpable difference in meaning or emphasis between the two orders, it seems best to disregard these isolated examples.¹

Interesting postverbal negatives are found in the following series of clauses from the Madduwattas' text:

- 32) nam-ma-ma-kán KUR^{URU} Ḫa-pa-a-al-la ku-en-ta-ia Ú-UL
 adv.-conj.-ptc. acc. 3sg.pret.-conj. neg.
 furthermore-but-ptc. Ḫapalla you smote-and not
- e-ip-ta-ia-at Ú-UL na-at A-NA D^{UTU}Š^I
 2sg.pret.-conj.-acc. neg. conn.-acc. dat.
 you seized-and-it not and-it to the Sun King
- pa-ra-a Ú[-UL pa-it-ta] na-at-za ^mMa-ad-du-ua-at-
 prev. neg. 2sg.pret. conn.-acc.-ptc. nom.
 prev. not you handed over and-it-ptc. Madduwat-
- ta-aš da-a-aš (Madduwattas' Rev. 23-24)
 3sg.pret.
 taš took

'But furthermore you did not smite Ḫapalla, and you did not take it, and you did not hand it over to the Sun King, and Madduwat-taš took it.'

In this example the postverbal negatives seem especially emphatic: they occur with a pair of conjoined verbs, one of which is the logical outcome of the other. Furthermore, this sequence of clauses as a whole is in strong contrast with the immediately preceding passage. The contrast here is marked by -ma, whose scope clearly extends through the first two clauses. The preceding passage is given in ex. (33):

- 33) KUR^{URU} Ḫa-pa-a-la-ma-az ^mMa-ad-du-ya-at-ta-aš li-i[n-ki-ia
 acc. -conj.-ptc. nom. dat./loc.
 Ḫapalla -but-ptc. Madduwatta oath
- kat-ta-an] ki-iš-ša-an zi-ik-ki-it KUR^{URU} Ḫa-pa-a-al-la-ya-kán
 postpos. adv. 3sg.pret. acc. -quot.-ptc.
 under as follows placed Ḫapalla -quot.-ptc.

na-aš-ša ku-e-mi na-aš-ma-ya-ra-at KA-DU NAM.RA^{HI.A}
 conj. lsg.pres. conj. -quot.-acc. instr.
 either I will strike or -quot.-it with deportees

GUD^{HI.A} UDU^{HI.A} ar-nu-mi [na-at A-NA]
 instr. instr. lsg.pres. conn.-acc.
 cows sheep I will drive away and-it

D_{UTU}ŠI pa-ra-a pí-iḫ-ḫi (Madduwattaš Rev. 21-22)
 dat. prev. lsg.pres.
 to the Sun King prev. I will give over

'But Madduwattaš placed Ḫapalla under oath as follows: "Ḫapalla I will either smite or I will drive it away together with deportees, cows (and) sheep, and I will give it over to the Sun King."'

The explanation of Hittite postverbal negatives as 'emphatic' was first proposed by Götze (1927:114) and has been followed by Friedrich (1960:146). This type of emphasis occurs, however, only in very short clauses (so Friedrich 1960:146), and in most instances it may also be a result of verb fronting, as in the second clause of ex. (32); see also ex. (36) in Chapter II, which has virtually the same structure as ex. (32), except that the injunctive negative lē is used and that the beginning of the first clause has been lost. The structure of ex. (32) is in fact so close to that of ex. (36) in Chapter II that one may wonder if (32) does not after all contain a fronted verb in the first clause, in spite of the presence of Ḫapalla.

H. A. Hoffner, Jr. (1977:151-2) has suggested that clauses which have the injunctive/prohibitive negative lē in apparent postverbal position (where the finite verb accompanied by -ma does not open the clause) actually consist of two clauses, one ending with the finite verb and the other consisting of just lē with a deleted

ešzi/ešdu. A biclausal analysis, however, cannot be given for postverbal ŪL (natta). Thus one must recognize postverbal position as a possible, although seldom used, emphatic placement for negatives, closely connected with initial or modified initial placement of verbs.

In this connection it is interesting to note that in Homeric Greek all the examples in which the negative ou is in postverbal position and is in the same clause with an explicitly stated verb have the verb in initial position; in addition, there is emphasis on both the verb and on the negative:

34) metállēsán ge mèn oú ti (Il. 5.516)
 3pl.aor. ptc. ptc. neg. acc.
 they asked ptc. ptc. no thing

'They asked about nothing.'

35) teléei d' hodòn oú pote taútēn (Od. 2.256)
 3sg.fut. ptc. acc. neg. adv. acc.
 he will accomplish ptc. journey not ever that

'He will never accomplish that journey.'

36) pémpsō dé min oú pēi egṓ ge (Od. 5.140)
 1sg.fut. ptc. acc. neg. adv. nom. ptc.
 I will send ptc. him no where I ptc.

'I will send him no where.'

37) diōkō d' oú tin' egṓ ge (Od. 18.409)
 1sg.pres. ptc. neg. acc. nom. ptc.
 I chase ptc. no one I ptc.

'I chase no one (away).'

These examples are catalogued and discussed by Moorhouse (1959:93-5), who, however, has not taken into account the placement of the verbs. Moorhouse does point out that the negatives in these examples are all used in combination with other elements (1959:93).

This type of structure is highly reminiscent of Hittite sentences with kuyapí ŪL after the finite verb, as in the following example from the Hattusili text:

- 38) ma-a-an-ya-ra-aš-mu-kán šu-ul-li-ja-at ku-ya-pí Ū-UL
 ptc. -quot.-nom.-acc.-ptc. 3sg.pret. adv. neg.
 if only-quot.-he-me-ptc. strived ever not

(Ḫattušiliš III 77)

'If only he had never striven against me.'

Further examples from this text with apparent postverbal material are actually ambiguous, since the verbs may have been fronted:

- 39) ma-a-an-mu iš-tar-ak-zi ku-ya-pí (Ḫattušiliš I 44)
 conj.-acc. 3sg.pres. adv.
 if-me it goes badly ever

'If ever it goes badly for me.'

- 40) nu-mu me-mi-iš-ki-it GIM-an (Ḫattušiliš IV 17)
 conn.-acc. 3sg.pret. adv.
 and-me she said as,how

'And as she said to me.'

- 41) ki-ni-na-aš-mu-kán šu-ul-li-ja-at ku-it (Ḫattušiliš III 79)
 adv.-nom.-acc.-ptc. 3sg.pret. conj.
 now-he-me-ptc. strived since

'Since he has now striven against me.'

In exx. (39) and (40) the verbs are formally in modified initial position since mān 'if' usually, and nu always, stand at the beginning of their clauses. However, in ex. (39) there seems to be at least as much emphasis on kuḡapí as there is on the verb, and in ex. (40) the normal word order pattern is crossed by the tendency to place maḡhan after the word it modifies. Kuit as conjunction is never clause initial (Friedrich 1960:163 with references); in fact, it is postposed to the word in the clause it is most closely associated with, even if this word is the finite verb,² as it is in ex. (41). Therefore, these examples, although they contain postverbal material, are not on an equal footing with those which have noun phrases after the verb.

The postponement of (lengthy) subjects and objects after the finite verb is one of the striking features of the word order of the Song of Ullikummi, as was stated in Chapter II. In addition to the examples cited there as numbers (45-49), (51), (55), and (56), this text shows many other instances of postverbal elements. Four examples with lengthy appositions to 'proleptic' pronouns are the following:

- 42) nu (?)]-ḡa-ra-an-za-an tar-aḡ-ta ku-ḡa-a [t-qa] am-me-el
 conn.-quot.-acc.-ptc.-acc. 3sg.pret. adv. gen.
 and-quot.-him-ptc.-him overcame perhaps my
- LÚ-an na-ak-ki-in x[. . .]x-an (A Col. I 28'-29')
 acc. acc. acc.
 man heavy

'perhaps he defeated him, my husband, the weighty . . .'
 (Güterbock).

- 43) [ku-e]n-ta-u-ra-an-kán ku-u[a-at-ga] [^{NA4}ku]-un-ku-n[u-zi-iš]
 3sg.pret.-quot.-acc.-ptc. adv. nom.
 killed-quot.-him.-ptc. perhaps kunkunuzzi
- am-me-el LÚ-an ^DU-an na-ak-k]i-in LUGAL-un
 gen. acc. acc. acc. acc.
 my man Storm God heavy king

(A Col. I 32'-33')

'He killed him perhaps--the kunkunu[zzi (killed) my husband, the Storm-God, the weigh]ty king!' (Güterbock).

- 44) ud-da-a-ar-mu [i]š-ta-ma-aš-ten ka-ru-u-i-li-ja-aš
 acc. -dat. 2pl.imptv. nom.
 words -my hear former
- DINGIR.MEŠ-iš ka-ru-u-i-li ku-i-e-eš ud-da-a-ar ku-i-e-eš
 nom. acc. nom. acc. nom.
 gods former who words who
- [š]e-ek-te-ni EGIR-pa-at he-e-eš-ten an-na-al-la at-ta-al-la
 2pl.pres. prev.-acc. 2pl.imptv. acc. acc.
 know again-them open old fatherly(?)
- hu-u-ha-da-al-la [É].^{NA4}KIŠIB.ĪI.A (A Col. III 48'-51')
 acc. acc.
 grandfatherly(?) storehouses

'My words hear, O Former Gods, who the former words know! Again open them, the old, fatherly, grandfatherly store-houses!' (Güterbock).

(The first relative is a scribal error, see Güterbock 1952:28, n. 52.)

- 45) na-an za-aḥ-ḥi-eš-ki-iz-zi ^DU-aš ^{NA4}ku-un-ku-nu-zi-in
 conn.-acc. 3sg.pres. nom. acc.
 and-him fights Storm god kunkunuzzi
- (A Col. IV 22')

'And he fights him, the Storm-God (fights) the kunkunuzzi.'

In ex. (42) an adverb and an appositional accusative phrase consisting of three words with a genitive possessive modifier are placed

after the finite verb, which is preceded only by sentence connective and enclitics and hence is in modified initial position. The structure of ex. (43) is quite similar to that of ex. (42) except that an overtly expressed subject follows the verb in addition to the adverb kuṣatka and the appositional accusative phrase. In this example, moreover, the clause initial verb is itself the prop for the enclitics. The presence of the 'proleptic' pronoun shows, I think, that the clause was intended to have a parallel construction to that of ex. (42) or of ex. (55) in Chapter II. The final clause contained in ex. (44) shows a long accusative phrase after the finite verb, which in this instance is preceded only by a clause initial preverb and an enclitic accusative pronoun. The finite verb is in modified initial position in this example, as it also is in ex. (45). The initial clause of ex. (44) contains, according to Güterbock, a postverbal vocative phrase. Exx. (43) and (45) illustrate the avoidance of nominative-accusative sequences of third person enclitic pronouns. In general, these examples are particularly dramatic in that the appositional material is quite lengthy. These examples are highly reminiscent of Rig-Vedic verses which contain whole line appositions.

The following four examples, all questions, share (with minor variations) a common structure: the interrogative element comes first, next the enclitic(s), including the proleptic pronoun, then the finite verb and then the appositions to the nominative or accusative pronouns:

- 46) ku-it-ya-ra-aš ú-iz-zi AN-aš UTU-u[(š KUR-e)-aš LUGAL-uš
 neut.-quot.-nom. 3sg.pres. gen. nom. gen. nom.
 why-quot.-he comes heaven sun land king

(Col. IV 44'-45')

'why does he come, the Sun-God of Heaven, the land's king?'
 (Güterbock).

- 47) ku-ya-pí[(-ya-ra-at)] an-da-an pid-da-iš-kán-z[i]
 adv. -quot.-nom. prev. 3pl.pres.
 where -quot.-they in run

2 LU.MEŠ^š AT-HU-TIM (Col. I 19'-20)
 nom.
 two brothers

'Where do they run, the two brothers?' (Güterbock).

- 48) ku-iš-ya-ra-aš [nam-ma] uš-ki-iz-zi šal-la-ia-aš DINGIR.MEŠ^š-aš
 nom.-quot.-acc. adv. 3sg.pres. gen. gen.
 who-quot.-them further will see great gods

da-aš-ša-u-e-eš za-uh-ḥa-u[š (Col. IV 15'-16')
 acc. acc.
 strong battles

'Who will any longer endure them, the great gods' strong
 battles?' (Güterbock).

- 49) ku-iš-ya-ra-an [nam-m]a uš-ki-iz-zi u-ni-ia-aš (?) ḥal-lu-ya-in
 nom.-quot.-acc. adv. 3sg.pres. gen. acc.
 who-quot.-it further sees this one violence

(B Col. I 31'-32')

'Who will any longer endure it, this one's violence?'

Two further examples with similar structures have been given already
 in Chapter II (ex. [45] and the first clause of [56]).

Although the following example contains a stressed sentence
 connective, and thus the enclitics are attached to it rather than

to the interrogative, its structure is analogous to that of the preceding questions:

- 50) nu-ya-ra-aš ku-iš nam-ma uš-ki-iz-zi [u-ni(?)]-ia-aš
 conn.-quot.-acc. nom. adv. 3sg.pres. gen.
 and-quot.-them who further sees of this one

na-aḥ-šar-ad-du-uš (B Col. I 33'-34')
 acc.
 fears

'And who will any longer endure it, this one's fearfulness?'
 (Güterbock).

If allowance is made for the obligatory initial or near initial placement of the interrogative word in these clauses, it becomes apparent that the only other elements preceding the verb are adverbs. The structure of these clauses overlaps with that of clauses with verbs in modified initial position.

Three examples in which the apposition to a 'proleptic' pronoun is maximally short are provided by the following:

- 51) ma[-al-da-ni-ša-aš] ma-aḥ-ḥa-an kar-p[í-iš-ki-it-ta-ri
 nom. -nom. conj. 3sg.pres.
 ḥ -he like is raised

NA₄ŠU].U-zi-iš (A Col. I 18'-19')
 nom.
 k.

'Like a . . . he is raised, the stone.'

- 52) ma-al-da-ni-ša-aš GIM-an k)a]r-pe-eš-ki-it-ta-ri NA₄-aš
 nom. -nom. adv. 3sg.pres. nom.
 m. -he like is lifted stone

(Col. IV 31')

'like a . . . he was lifted, the stone' (Güterbock).

- 53) u-i-te-na-za-aš-kan ar-ḥa u-it NA₄-aš (Col. IV 28')
 abl. -nom.-ptc. prev. 3sg.pret. nom.
 water -he-ptc. away went stone

'Out of the water he stood, the stone' (Güterbock).

In contradistinction to the preceding examples, there is no possibility here of confusion between sentences with modified initial placement of the finite verb and those with postverbal material.

An interesting contrast in word order occurs in the two following examples:

- 54) na-aš-kán ḫ[a-al-li-ḫ]a-al-li-ia-aš ti-ia-at ^DIŠTAR-iš
 conn.-nom.-ptc. adv. 3sg.pret. nom.
 and-she-ptc. quickly stood Istar

(B Col. I 20'-21')

'And she stood quickly, Ištar.'

At the point in the narrative where (54) occurs, another copy of this text has the same sentence with normal word order (Güterbock 1952:12, n. 19) and omission of the enclitic pronoun:

- 55) ^DIŠTAR-iš-kán [walliwallyiyas tiyat (D Col. I 10'-11')
 nom. -ptc. adv. 3sg.pret.

'Istar stood quickly.'

That the presence of proleptic pronouns is not required in order for there to be unambiguous postverbal subjects is shown by the following examples:

- 56) [nu ke-e INIM.MEŠ ma-a-an (?)] iš-ta-ma-aš-ta ^DUTU
 conn. acc. acc. conj. 3sg.pret. nom.
 and these words when heard Sun god

ŠA-ME-E (Col. I 9')
 of heaven

'And when the Sun God of Heaven heard these words'

(The fragmentary context is no argument against the assumption of this word order pattern.)

- 57) nu te-et-ḫi-eš-ki-iz-zi ^DAŠ-d[a-pí-iš (A Col. I 7')
 conn. 3sg.pres. nom.
 and thunders Astabi

'And he thundered, Astabi' (Güterbock).

- 58) nu-za iš-ḫa-mi-iš-ki-iz-zi ^DIŠTAR-iš (B Col. II 5')
 conn.-ptc. 3sg.pres. nom.
 and sings Ištar

'And Ištar sings'

This sentence occurs at the beginning of a section of text, so that one would not in any event expect an initial verb. Güterbock clearly takes this sentence as equivalent to the others with proleptic pronouns, as his translation shows: 'And she sang, Istar'. At first glance, the following clause appears to have the same structure:

- 59) ar-ḫa-ya i-ḫa-an-ni ^DIŠTAR (B Col. II 14')
 prev.-quot. 2sg.imptv.
 away-quot. go Ištar

'Go away, O Ištar' (Güterbock).

The absence of a phonetic complement, however, makes it likely that IŠTAR here is a vocative and hence not part of the syntactic

structure of the clause (see Güterbock 1945 and Hahn 1950 on vocatives in Hittite).

A much rarer phenomenon in this text than the placement of (appositive) nominative or accusative phrases after the finite verb is the postponement of dative-locative noun phrases:

60) nu-ya-kán IGI.ĤI.A-in te-iš-ki-iz-zi ša-pí-id-du-ya
 conn.-quot.-ptc. acc. 3sg.pres. dat.
 and-quot.-ptc. face puts dreadful(?)

^{NA4}ku-un-ku-nu-uz-zi (B Col. I 25'-26')
 dat.
 kunkunuzzi

'yea, (his) face he set upon the dreadful kunkunuzzi'
 (Güterbock).

In this example there is no prolepsis, and the dative noun phrase is placed after an object-verb sequence. Another clause with the same structure is cited as ex. (51) in Chapter II. In a parallel text, however, the normal order of words is preserved at this point in the narrative:

61) . . .] ša-ap-pí-du-ya ^{NA4}ku-un-ku-un-uz-zi IGI.ĤI.A-in
 dat. dat. acc.
 dreadful(?) kunkunuzzi face

ti-iš-ki-iz-z[i] (D 20'-21')
 3sg.pres.
 puts

This version of the Ullikummi text is consistently more conservative than the 'main text', cf. exx. (54) and (55) above.

Many of the examples from the Ullikummi text cited here and in Chapter II illustrate clearly the difficulty in sorting out sentences

with postverbal amplifications from those with fronted verbs. One way in which the process of sorting has been simplified is by the scribes' use of 'proleptic' enclitic nominative and accusative pronouns. Ambiguities remain, however, because of the apparent avoidance of nominative-accusative third person enclitic pronoun sequences. In those examples in which both would occur, the accusative enclitic pronoun is usually stated and the nominative omitted. The nominative is, of course, less necessary than the accusative, since it is merely a further overt specification of information already contained in the verbal desinences. A common feature of many of the examples is that when a preverb or nu with following enclitic string opens the clause, the finite verb comes next, with the elements appositional to the enclitic pronouns following. This results in structures identical to those with the verb in modified initial position, and directly comparable to certain syntactic patterns in other Indo-European languages, notably Sanskrit, Greek, and Old Irish (see Chapter III). Since Ullikummi is a translation of a Hurrian original, this use of proleptic enclitic pronouns has been termed a calque of a Hurrian syntactic characteristic.³ However, one may note that it was possible for the 'translator' to employ this stylistic device in Hittite, and that comparative evidence shows that this word order pattern was a possibility in other Indo-European languages as well.

In summary, postverbal material in the Hittite texts investigated is found only under certain very limited conditions. Aside

from the cases in which such postverbal material occurs because of phonological or morpho-syntactic conditioning, Hittite postverbal elements may be classified into the following categories:

- a) adverbs or conjunctions: kuyatka, kuyapí, kuit. The placement of these items is not free, and their postverbal occurrence may be grammatically conditioned. This is almost certainly the case for kuit, and prima facie it should hold for kuyatka and kuyapí as well.
- b) negatives: lē, ūL. The postverbal placement of these elements has close parallels in Greek (see Schwyzer-Debrunner 1950:596-7, Moorhouse 1959:93-5), but not, it seems, in Sanskrit.⁴
- c) oblique, non-accusative, case forms of nouns. In contradistinction to the majority of instances of postverbal nominative or accusative nouns, these dative (-locative) or genitive nouns are not appositional, nor do they have annunciatory 'proleptic' pronouns; they are simply postposed to the verb. Depending on the presence or absence of other nouns, clauses containing postposed dative or genitive nouns may be interpreted in two manners, either as having verb initial (or near initial) order, or as having postverbal elements.
- d) subjects and objects of verbs. These are usually appositional. In this category it is important to distinguish between examples in which the postposed nominative or accusative noun (or both) is appositional to a 'proleptic' enclitic pronoun and those in which the postposed noun is appositional to a full noun placed before the finite verb. In the former case, ambiguity of structure is an almost necessary concomitant of the postponement of nouns, while in

the latter case, the appositional nature of the postverbal elements is always clear.

e) It is sometimes unclear whether or not apparently postverbal nouns are in reality postverbal or whether they in fact constitute nominal sentences with transitive verbs deleted. In the presence of sentence connectives, there would be no ambiguity, but none of the examples of gapping cited by Watkins (1976) has a sentence connective. A possible example of this type of construction is ex. (58). I will return to this point below.

The categories listed above have parallels in other IE languages. Yet once again, as in the case of clause initial verbs, Hittite has a more restricted group of categories for which this placement is possible than do the other IE languages. The Hittite examples presented are virtually all of those found in the texts investigated, a total of more than three hundred pages. Clauses with verb initial order are far more frequent than clauses with postverbal material, by a ratio of more than 4 : 1. Clauses with initial or near initial verbs constitute rather less than 3% of the total number of clauses in the texts investigated; it follows that clauses with postverbal material are extremely rare.

NOTES TO CHAPTER IV

¹Thus, these postverbal examples of kuiški are in no way comparable to the postverbal examples of kuiš discussed by Held (1957:11-12) and Ivanov (1979), where the postpositive kuiš has specific reference.

²As a conjunction, kuit seems to be placed after the word in the clause it is most closely associated with. It seems to mark the preceding word as a topic, as an element which is to be referred to in the following clause. The principal difference between kuit as conjunction and the ordinary relatives is that kuit can be used with verbs, adverbs, predicate nominals, etc. I treat this and a number of related problems in a study of relativization currently under preparation.

³Hurrian 'proleptic' pronouns are not, however, associated with marked word order patterns; prolepsis is normal, as is SOV order, cf. the Textproben in Friedrich 1969. In Hittite, Vedic Sanskrit, Avestan and Homeric Greek, pronominal prolepsis is a frequent phenomenon. It by no means implies postverbal 'appositions' to the pronouns. It is especially common when the full nouns are personal names, cf. ex. (3) in Chapter II for a lengthy series of appositions to a proleptic pronoun.

⁴I have not so far located any examples of postverbal negatives in Sanskrit; none are cited in Gonda (1952), Delbrück (1878, 1888), or in Speyer (1895).

CHAPTER V

PLACEMENT OF INFINITIVES

A sharp distinction between Hittite and the other older Indo-European languages is found in the treatment of infinitives (and of infinitive-like constructions). In Hittite, at all periods of the language, infinitives precede their matrix verbs:

- 1) LUGAL-uš^{URU} Ḫa-at-tu-ša DINGIR^{DIDL}I -aš a-ru-ya-an-zi ú-e-et
 nom. gen. dat. inf. 3sg.pret.
 king Ḫattuša gods to implore went

(StBoT 17 Rev. 13')

'The King of Ḫattuša went to implore the gods.'

- 2) tak-ku DUMU-an an-na-nu-ma-an-zi ku-iš-ki pa-a-i
 conj. acc. inf. nom. 3sg.pres.
 if son to educate someone gives

(Laws Tab. II §86b)

'If someone gives (his) son to be educated.'

- 3) nu ad-da-an-na ú-e-ik-zi (KUB X 95 III 11-12)
 conn. inf. 3sg.pres.
 and to eat he desires

'And he wishes to eat.'

- 4) na-aš-ta ut-ne-ia-aš iš-ta-an-za-na-aš ap-pa-an-na
 conn.-nom.-dat. gen. acc. inf.
 conn.-he-you country souls to take

ki-iš-ri-it-ti da-iš (KBo III 21 II 4f.)
 dat. dat. 3sg.pret.
 hand your put

'He put the souls of the country in your hand to take'
 (= 'so that you would take them').

- 5) nu l-aš l-an ku-na-an-na li-e ša-an-ḥa [-zi] (KBo V 4 Rev. 5)
 conn. nom. acc. inf. neg. 3sg.pres.
 one other to kill not seek

'One should not seek to kill the other.'

- 6) IŠ-T[U KUR] URU^{URU}KU.BABBAR-ti LÚ^{LÚ}MU-NAB-TUM EGIR-pa pi-ia-an-na
 abl. nom. prev. inf.
 Ḥatti fugitive back to give

Ú-UL a-a-ra (KBo V 4 Obv. 38 = Friedrich 1926:58)
 neg. ?
 not allowed, right

'A fugitive from Ḥatti is not right to be given back'
 (= 'To give back a fugitive from Ḥatti is not allowed').¹

- 7) [^DUTU]ŠI ERIN^{MEŠ} ŠA^{ŠA} ḤUR.SAG^{ḤUR.SAG} Ḥa-ḥar-ya RA-u-an-zi pí-an
 nom. acc. gen. inf. prev.
 sun king troops of Ḥaḥarya to strike

ḥu-i-nu-zi (KUB V 1 I 19)
 3sg.pres.
 lets march

'The Sun King lets the troops of Ḥaḥarya march (in order) to
 strike (them).'

- 8) nu-mu-kán a-pi-ia-ia ^DIŠK[UR U] (^{RU}Ḥa-at-ti) EN-IA
 conn.-dat.-ptc. adv. -conn. nom. nom.-poss.
 and-to me-ptc. there -and weather god of Ḥatti lord-my

pí-ra-an ti-ia-u-an-zi ḥa-an-da-a-it-ta-at
 prev. inf. 3sg.pret.
 before to stand ordained

(KUB XIV 8 Obv. 39-40)

'And for me there too it was ordained by oracle that I stand
 before the weather god of Ḥatti, my lord.'

- 9) nu nam-ma D_{UTU}ŠI URU Du-uk-ka-ma-an URU-an
 conn. adv. nom. acc. acc.
 and furthermore sun king Dukkama city

[ša-]a-ru-u-ya-u-ya-an-zi Ū-UL tar-na-aḥ-ḥu-un
 inf. neg. 1sg.pret.
 to plunder not I let

(KBo IV 4 IV 23f.)

'And furthermore I, the Sun King, did not let the city of Dukkama be plundered.'

- 10) ki-nu-un-ma-ya-aš-ši ku[-ru-r] (i-e-eḥ-ḥu-an-zi)
 adv. -ptc.-quot.-dat. inf.
 now -but-quot.-him to be an enemy

[ku]-u-ya-at ḥa-at-ri-iš-ki-ši (Ḥattušiliš III 76)
 adv. 2sg.pres.
 why you write

'But why now do you write to him to be an enemy?'

- 11) na-at ar-ḥa e-ip-pu-u-ya-an-zi Ū-UL tar-aḥ-te-ni
 conn.-acc. prev. inf. neg. 2pl.pres.
 and-it prev. carry through not you are able

(KBo III 3 III 30-31)

'You are not able to finish it.'

- 12) ma-a-an tu-uk-ma [ya-ar-r]i-šu-ya-an-zi Ū-UL ki-ša-ri
 conj. dat. -ptc. inf. neg. 3sg.pres.
 if you -but to help not it becomes

(KBo V 9 II 19 = Friedrich 1926:16)

'If it does not come about (= is not possible) to help you.'

- 13) nu UL-ma a-a-ra UGU še-šu-an-zi (KUB V 1 I 38)
 conn. neg.-ptc. ? prev. inf.
 conn. not-but right above to sleep

'But is it not right to sleep above?'

- 14) a-pa-aš-ma-mu ḫar-kan-na [IŠ-]TU INIM DINGIR^{LIM} Û
 nom. -ptc.-acc. inf. instr. gen. conj.
 he -but-me to destroy word god and
- IŠ-TU INIM LÚ ša-an-ah-ta (Ḫattušiliš III 63-64)
 instr. gen. 3sg.pret.
 word man sought

'But he sought to destroy me through the word of (his) divinity and the word of men.'

The preceding examples are sufficient to show that Hittite infinitives, no matter what type of construction they appear in, are regularly preposed to their governing verbs. Ex. (13) is the only instance I know of in which an infinitive stands at the end of a clause. The phrase ÚL ara functions as a unit, and negatives are usually clause initial in questions. Hence, the entire phrase is fronted, just as if it were a verb, with the result that the infinitive is in clause final position.

Aside from the fact that infinitives in Hittite are regularly preposed to their governing verbs, the other major fact concerning their use is that the vast majority of Hittite infinitives are used in 'final' or 'consecutive' meanings. Thus, for example, Ose (1944:58) on the forms in -anna: 'Meist entspricht der Infinitiv einem finalen Dativ, daher sein häufiger Auftreten bei Verba der Bewegung'; and on the forms in -yanzi: 'In der Merzahl der Fälle entspricht das hethitische Supinum einem finalen Dativ' (1944:58; cf. further Kammenhuber 1955; Friedrich 1960:142-4).

As was stated at the beginning of Chapter IV, one of the categories of postverbal material in Sanskrit (and Greek) isolated by Gonda (1959) consists of 'final' datives and of infinitives

derived from them. According to Gonda, such a dative 'being loosely connected with the sentence is clearly an addition, an amplification, added to a sentence which is complete in itself' (1959:11). Further, 'It seems to be equally plain that this position of such an additional dative or dative group, which while joining the entire sentence indicates the aim or purpose contained in it, is completely natural' (1959:11). Although Gonda recognizes that 'Passages are however far from rare in which this dative occupies another position' (1959:13), he cites only four examples with preverbal final datives. Another category of postverbal elements consists of the 'so-called accusative infinitives . . . used to supplement statements containing a verb of motion or in dependence on verbs meaning "to wish, to be able, etc."' (1959:14). Gonda further insists on the 'epexegetic character of the "infinitive"'. The Hittite examples cited above make it clear that preverbal placement of corresponding elements is equally natural. This impression is strengthened by the fact that virtually all of the Hittite infinitives fall into one or the other of these two categories isolated by Gonda, and by the fact that they are usually translated as 'epexegetic'. Ose (1944:7) even maintains that the Hittite infinitives do not have 'einen Einfluss auf die Konstruktion des Satzes . . . es tritt vielmehr wie ein Adverb in ihn hinein.

The essential point, however, is that the Hittite infinitives are placed before their governing verbs. Even though it is possible to shift material to the right of the finite verb in Hittite for emphasis or stylistic considerations, this procedure seems not to

have been employed in the case of infinitives. The single Hittite example I have found with a clause final infinitive does not contain a finite verb; the phrase which functions as predicate has been shifted to the front of the clause just as if it were a finite verb. The translation of the Hittite infinitives as epexegetic corresponds just as well to the traditional grammatical analysis of infinitive constructions as it does to the actual facts of the language.

On the subject of Vedic infinitives, J. S. Speyer (1896:67) expresses himself in terms very similar to those used by Ose:

[In certain cases] steht der Inf. der Bedeutung eines Object-accusativs ungemein nahe; doch wird er kaum jemals also solcher empfunden, und er hat immer seinen eigentümlichen, dem Adverb nahestehenden Character für das Sprachgefühl bewahrt. So giebt es im Indischen auch keinen Acc. cum infinitivo.

Delbrück's translations of individual examples and his characterizations of the different types of infinitives (1888:419-25) are entirely consistent with Speyer's general description of infinitive use cited above. Some typical examples of different constructions and word orders are given in the following:

15) tvám Indra srávitavá apás kaḥ (RV. 7.21.3)
 nom. voc. inf. acc. 3sg.inj.
 you O Indra to flow waters make

'You, O Indra, make the waters flow.'

- 16) dviṣás tarádhya ṛṇayá na īyasa (RV. 9.110.1)
 acc. inf. nom. ptc. 2sg.pres.
 enemies to overcome avenger like come

'You come like an avenger to overcome enemies.'

- 17) bhúyo vā dātum arhasi (RV. 5.79.10)
 acc. ptc. inf. 2sg.pres.
 more or to give you are able

'Or you are able to give more.'

- 18) naiṣá gávyūtir ápabhartavá u (RV. 10.14.2)
 neg.-nom. nom. inf. ptc.
 not-this cow pasture to rob ptc.

'This cow pasture (is) not to be robbed.'

- 19) téna stotr̥bhya á bhara n̥rbh̥yo n̥aribh̥yo áttave
 instr. dat. prev. 2sg.imptv. dat. dat inf.
 with that praisers prev. bring men women to eat

(RV. 8.77.8)

'With that bring (something) to the praisers, men, and women to eat.'

- 20) sugān pathó akṛṇon niráje gāḥ (RV. 3.30.10)
 acc. acc. 3sg.impf. inf. acc.
 good-going paths he made to drive cows

'He made the paths passable to drive out cows.'

- 21) á vo váhiṣṭho vahātu stavádhyaī rátho
 prev. gen. nom. 3sg.imptv. inf. nom.
 here your bringing most convey to praise chariot

vajā ṛbhukṣano amṛktáḥ (RV. 7.37.1)
 voc. voc. nom.
 O vajas O ṛbhukṣans intact

'Euch fahre euer Wagen zum Preisen' (Speyer 1896:65).

- 22) $\acute{s}a$ veda devá ānāmaṃ devān ṛtāyate dāme
 nom. 3sg.pf. nom. inf. acc. dat. dat.
 'he' knows god to bend,turn gods righteous house

(RV. 4.8.3)

'The god knows (how) to turn the gods to the righteous one's house.'

- 23) $\acute{u}po$ emi cikitúṣo vipṛccham (RV. 7.86.3)
 prev.-ptc. 1sg.pres. acc. inf.
 prev.-ptc. I go wise to ask

'I go to the wise to ask.'

- 24) \acute{a} ta etu mānaḥ pūnaḥ krátve dáksāya jīváse jyók
 prev. dat. imptv. nom. adv. dat. dat. dat. adv.
 here your come mind again vision cleverness life long

ca sūryaṃ dṛśé (RV. 10.57.4)
 conn. acc. inf.
 and sun to see

'Let your mind come here again for vision, cleverness, life and to see the sun for long.'

In exx. (15-17), the infinitives precede their governing verbs; in ex. (15) the infinitive and governing verb are equivalent to a causative construction, in ex. (16) the infinitive expresses purpose, while in ex. (17) it is an obligatory complement to the finite verb. Ex. (18) is a negative nominal sentence; in constructions of this type, the notional object of the infinitive appears as a nominative, and the infinitive must be interpreted as a passive. This peculiarity is found also in Hittite and Avestan (cf. exx. [6] and [30], and Note 1). The infinitives and final datives are postposed to the verbs they depend from in exx. (19-24). In (19-21) a variety of case forms of nouns precedes the finite verbs, which the infinitives

follow, accompanied by other nouns. The finite verbs in (22-24) are in modified initial position; hence, the infinitives follow them.

Ex. (24) shows the clear equivalence of final datives and infinitives. The objects of the infinitives may either precede them, as in exx. (16), (17), and (23), or follow them as in exx. (20) and (22)

Some typical examples of the placement of final datives and of infinitives in Avestan are provided by the following:

- 25) hiiāṭ mā drəguuā dīdarəšatā aēnaṇhē (Y. 46.7)
 conj. acc. nom. 3sg.pret. dat.
 since me drugvan desires to hold for violence/to
 perform violence

'Wenn mich der Trughafte festnehmen will, um mir Gewalt anzutun'
 (Humbach 1959).

- 26) yā vā mōi yā gaēθā dazdē aēnaṇhe (Y. 46.8)
 nom. ptc. dat. acc. acc. 3sg.pres. dat.
 who or me the herds puts for violence/to
 perform violence

'Wenn einer such vornimmt, meinen Herden Gewalt anzutun'
 (Humbach 1959).

- 27) yām vā naēciš dārəšt itē (Y. 43.13)
 acc. acc. nom. 3sg.pret. inf.
 to which you no one can compel to go

'To which no one can compel you to go.'

- 28) tāuuīšīm gaṭ.tōi vasəmī (Y. 43.1)
 acc. inf. 1sg.pres.
 strength to go I wish for

'I wish for strength to go.'

- 29) aṣauuanəm tē aṣaonaṭ āfiieidiāi mraomi uruuaθəm
 acc. dat. abl. inf. lsg.pres. acc.
 righteous you righteous to help I say friend

uruuaθaṭ (Y. 71.13)
 abl.
 friend

'iustum tibi a iusto curandum declaro, amicum ab amico'
 (Bartholomae)

- 30) hiiatcā gāuš jaidiāi mraoī (Y. 33.14)
 conj.-conn. nom. inf. 3sg.aor.pass.
 since cow to kill is said

'Since the cow is said to be killed' (= 'since it is said that
 the cow is to be killed').

- 31) yezī ahiiā aṣā pōi maṭ xšaiiehī (Y. 44.15)
 conj. gen. instr. inf. abl. 2sg.pres.
 if it Aša to ward off from me you are able

'If you are able to ward it off from me through (the agency of)
 Aša.'

- 32) yō ništaieiti keratāe sraošiṭam (Yt. 10.109)
 nom. 3sg.pres. inf. acc.
 who orders to perform punishment

'Who orders that the punishment be performed.'
 'Il ordonne d'exécuter la punition' (Benveniste 1935).

- 33) tā tōi iziā ahurā mazdā darštōišcā hēm.parštōišcā
 instr. dat. lsg.pres. voc. voc. gen.-conn. gen.-conn.
 therefore you I desire Ahura Mazda seeing-and questioning-and

(Y. 33.6)

'Therefore I desire, O Ahura Mazda, to see and question you'
 (lit. 'your seeing and questioning').

34) āca.nō jamiāṭ auuaiḥe
 prev.-conn.-acc. 3sg.opt. dat.
 prev.-and-us may come help

. . .

āca.nō jamiāṭ baēšazāi (Yt. 10.5)
 prev.-conn.-acc. 3sg.opt. dat.
 prev.-and-us may come healing

'May he come to us for help' (= 'may he come to help us')

. . .

'May he come to us for healing' (= 'may he come to heal us').

In exx. (25-27), the final datives and infinitives are placed after the verbs they accompany, yet they have as objects elements that occur in preverbal position. The enclitic pronoun mā in (25) serves as object both of didarəšatā and of aēnaḡhē; yā gaēθā is object of aēnaḡhē in (26). While yēm in (27) has to be taken only with the infinitive, vā goes both with it and with the finite verb. The infinitive is found before the finite verb in (28-31). Ex. (29) shows that apparent postverbal nouns may be the result of deletion of verbs. Modified initial placement of the finite verb is found in exx. (32-34). The enclitic pronoun tōi in (33) is to be taken with the postverbal nouns darštōiš and həm.parštōiš. According to Benveniste (1935:11), these are deverbal nouns, formally genitive, outside the infinitive system of Avestan. The enclitic pronouns in ex. (34) are to be taken both with the finite verbs and with the final datives.

Old Persian infinitive placement is remarkably consistent: there are four infinitives in this language with a total of seventeen attestations, all following the verb they depend from:

- 35) utā : ima : stānam : hauv : niyaštāya : katanaiy (XV 20-21)
 conj. acc. acc. nom. 3sg.impf. inf.
 and this niche he ordered to dig

'and this ditch he gave orders to dig out' (Kent 1953)
 or 'he ordered this niche to be dug'.

(DSn 1 clearly has the same structure, although the context
 is fragmentary.)

- 36) pasāva : adam : niyaštayam : imām : dipim :
 adv. nom. lsg.impf. acc. acc.
 afterwards I ordered this inscription

nipaištānaiy (XV 23-25)
 inf.
 to engrave

'Afterwards I ordered this inscription to be engraved.'

- 37) utā diš : atāvayam : bartanaiy (DNb 46-47)
 conj. acc. lsg.impf. inf.
 and them I was strong to bear

'And I was strong to bear them.'

- 38) avadā : hauv : Naditabaira :hya : Nabuk^udracara : agaubata :
 adv. nom. nom. nom. nom. 3sg.impf.
 there this Nidintu-Bel who Nebuchadrezzar was called

āiš : hadā : kārā : patiš : mām : hamaranam :
 3sg.impf. prep. instr. prep. acc. acc.
 came with army against me battle

cartanaiy (DB 92-94)
 inf.
 to make

'There this Nidintu-Bel who was called Nebuchadrezzar came with
 an army against me to make battle.'

(DB 2.33, 2.38-39, 2.44, 2.53, 2.58, 2.67, 3.36, 3.43-44, 3.60,
 and 3.65 all have the same structure and word order as ex. [38].)

39) tyamaiy : framātam : cartanaiy : ava : ucāramaiy :
 nom.-gen. nom. inf. acc. acc.-gen.
 what-me commended to do that well done-me

akunaus¹ (DSf 19-20)
 3sg.impf.
 he made

'What (was) commanded by me to be done, that he made successful for me.'

Although all these infinitives follow the verb they depend from, their objects may be placed in front of the finite verb, even where there is no possibility that it could govern the object. Exx. (35) and (37) show this phenomenon clearly, with a preverbal noun and deictic in (35) and an enclitic pronoun in (37), governed in each case by the infinitive. Ex. (37) could also have the finite verb in modified initial placement. The finite verb in ex. (36) precedes the entire infinitive phrase, as does that in (38). In the latter example (and in those with a similar structure) the preverbal material is quite lengthy. In all cases, the object of the infinitive precedes it, either immediately or at some distance.

The few examples of infinitives in Mycenaean Greek are placed either before or after the word they depend from:

40) e-u-ke-to-ge e-to-ni-jo e-ke-e te-o
 3sg.pres.-conj. acc. inf. dat.?
 she claims-and ? to have god

da-mo-de-mi pa-si ko-to-na-o ke-ke-me-na-o o-na-to
 nom.-ptc.-acc. 3sg.pres. gen. gen. acc.
 deme-but-her says plots communal lease?

e-ke-e (PY Ep 704.5-6)

'and she claims to hold the etonijo for the god, but the deme says she has the lease of common plots.'

- 41) o-pe-ro-sa du-wo-u-pi wo-ze-e (PY Ep 704.7)
 nom. instr. inf.
 being obliged two to work

'being obliged to work with the two'

- 42) o-da-a a-na-ke-e o-pa-ro-te (Py Ag 218)
 adv.-3pl.-aor.? inf. nom.
 thus-gave to lead being obliged

'thus gave those obliged to bring.'

The two infinitive phrases contained in ex. (40) both follow their governing verbs. The first infinitive phrase occurs after a fronted verb, while the second is broken up around the finite verb, with the enclitic subject of the infinitive in Wackernagel's Law position and the remainder of the infinitive phrase after the finite verb. This clause contains the earliest unambiguous accusative with infinitive construction attested in any Indo-European language. Exx. (41) and (42) both contain infinitives depending from participles of *ophel-yo; in (41) the infinitive follows the participle, but in (42) it precedes.

The following examples will serve to illustrate typical infinitive constructions and word order patterns in Homeric Greek:

- 43) tís t'ár sphōe theōn éridi ksunéēke mákhesthai
 nom. conn.-ptc. acc. gen. dat. 3sg.perf. inf.
 who them gods strife sent together to fight

(Il. 1.8)

'Which of the gods sent them together to fight in strife?'

- 44) ὦ Khrúsē, pró m' épempsen ánaks andrōn Agamémnōn
 ptc. voc. prev. acc. 3sg.aor. nom. gen. nom.
 O Chryses forth me sent lord men Agamemnon

paída te soi agémen, Phoíbōi th' hierèn hekatóm̄bēn
 acc. conj. dat. inf. dat. conj. acc. acc.
 child both to you to lead Phoebus and sacred hecatomb

rhēksai hupèr Danaōn (Il. 1.442-4)
 inf. prep. gen.
 to perform on behalf of Danaans

'O Chryses, Agamemnon lord of men sent me forth to lead (your) daughter to you and to perform a sacred hecatomb on behalf of the Danaans.'

45) aieī toi phílon estìn emeū̄ aponósphin eónta
 adv. dat. nom. 3sg.pres. gen. postpos. acc.
 always you dear it is me away from being

kruptádia phronéonta dikazémen: oudé tí pó̄ moi
 acc. acc. inf. neg. adv. adv. dat.
 secrets thinking to decide nor anyway ever me

próphrōn tétlēkas eipeĩn épos hótti noēsēis
 nom. 2sg.perf. inf. acc. acc. 2sg.aor.
 willing you endured to speak matter that you had in mind

(Il. 1.541-3)

'It is always dear to you, being away from me, thinking secret thoughts, to decide: nor have you ever in any way willingly endured to tell me the matter that you had in mind.'

46) autàr Odysseús
 conj. nom.
 but Odysseus

hiémenos kaī kapnòn apothrōiskonta noēsai
 nom. acc. acc. inf.
 longing even smoke springing up to perceive

hēs̄ gaiēs, thanéein himeíretai (Od. 1.57-9)
 gen. gen. inf. 3sg.pres.
 of his land to die desires

'But Odysseus, longing to perceive even the smoke rising of his land, wants to die.'

- 47) ἔρkh' ímen (Il. 13.329)
 3sg.aor. inf.
 he began to go

'He began to go.'

- 48) allá hé phēmi
 conj. acc. lsg.pres.
 but him I say

eis Áidos per íonta pulártao krateroío
 prep. gen. ptc. acc. gen. gen.
 to Hades although going gate strong

gēthēsein katà thūmon (Il. 13.414-16)
 inf. prep. acc.
 be cheerful at heart

'But I say that he, although he is going to (the dwelling) of strong gated Hades, will be cheerful at heart.'

- 49) soì d' autōi phēmì skhedòn émmenai, hoppóte pheúgōn
 dat. ptc. dat. lsg.pres. adv. inf. adv. nom.
 you ptc. yourself I say near to be when fleeing

arēsēi Diī patri kai állois athánatoisi
 2sg.aor. dat. dat. conj. dat. dat.
 you will pray Zeus father and other immortals

thássonas irékōn émenai kallítrikhas híppous
 acc. gen. inf. acc. acc.
 quicker (than) hawks to be beautiful-maned horses

(Il. 13.817-19)

'But I say (that it) is near for you yourself when fleeing you will pray to Father Zeus and to the other immortals (that) your beautiful-maned horses be faster than hawks.'

- 50) ou mèn gár tí se pezòn oíomai enthád'
 neg. ptc. ptc. adv. acc. adv. lsg.pres. adv.
 not ptc. for in any way you by foot I think here

hikésthai (Od. 1.173)
 inf.
 to come

'For I don't think at all you came here by foot.'

- 51) *toùs men éa parà téisi (sc. nēusi) pónon t'*
 acc. ptc. 3sg.impf. prep. dat. acc. conj.
 them ptc. he let alongside them (sc. ships) grief and

ekhémén kai oizùn / nōleméōs (Il. 13.1-2)
 inf. conj. acc. adv.
 to have and distress unceasingly

'Then he let have grief and distress unceasingly alongside them (sc. the ships).'

- 52) *tóte d' ou ti dunéseai akhnúmenós per*
 adv. ptc. neg. adv. 2sg.fut. nom. ptc.
 then ptc. not in any you will being grieved although
 way be able

khraismeîn (Il. 1.241-2)
 inf.
 to assist

'Then, although you are grieving, you will not be able to assist at all.'

- 53) *prēksai d' émpēs ou ti dunéseai*
 inf. ptc. adv. neg. acc. 2sg.fut.
 to accomplish ptc. nevertheless not anything you will
 be able

(Il. 1.562)

'Nevertheless, you will not be able to accomplish anything.'

- 54) *theoísi dè thūσαι anógei Pátroklon*
 dat. ptc. inf. 3sg.plupf. acc.
 gods ptc. to sacrifice he ordered Patrokles

(Il. 9.219)

'He ordered Patrokles to sacrifice to the gods.'

In exx. (43) and (44), the infinitives follow the finite verb; in both cases, enclitic pronouns precede the finite verb and are to be interpreted both as objects of the finite verb and as subjects of the infinitives. The infinitive phrases in (44) are quite lengthy,

and the finite verb is in modified initial position. The infinitives in ex. (45) also follow their verbs. The first clause of ex. (45) again has an enclitic pronoun in Wackernagel's Law position which functions as subject of the infinitive, while the second clause contains an enclitic pronoun before the finite verb which can only be taken with the infinitive. Ex. (46) shows two different orders for infinitives depending from a participial and a finite form of the same verb. In (48) the infinitive phrase is dependent on phēmi 'I say'; the enclitic pronoun he is subject of gēthésein. The finite verb is in modified initial position. Ex. (49) also has a verb of saying governing an infinitive. The structure here is complicated by the fact that the subject of émmenai is a whole clause which itself contains an embedded infinitive. The infinitive phrase in ex. (50) is governed by oíomai 'I think'; once again the infinitive phrase is split up around the finite verb. Ex. (51) has much the same structure as (50), but here the governing verb is eaō 'permit, allow'. In ex. (52) the infinitive follows its verb, while in ex. (53) it precedes it; in both cases the governing verb is dúnamai 'be able'. The infinitive precedes the verb it depends from in ex. (54), but in this instance the subject of the infinitive is postponed until the next line.

As stated above, the Hittite data show a consistent preverbal placement of infinitives. The fact that virtually all Hittite infinitives are of types that would correspond either to 'final' infinitives or to supines in other Indo-European languages demonstrates incontrovertibly that preverbal placement of such elements

is thoroughly consonant with their semantics. Many of the preverbal infinitives in Vedic Sanskrit and Avestan are of a final type, as was shown in the examples cited above. Furthermore, the consensus of scholarly opinion is that all Indo-European infinitives were originally of a 'final' type, with true complements a later development.²

There is, moreover, a correlation between infinitive placement and the frequency of certain word order patterns in the languages under discussion. In Hittite, under ordinary conditions, all constituents of the clause precede the finite verb unless it has been fronted. In Sanskrit, infinitives may precede or follow the verb they depend on (see Delbrück 1878:33-5, Thommen 1803:524, Canedo 1937:49-52, Verpoorten 1977:48-50). There is a much higher frequency of verb initial sentences in Sanskrit than in Hittite (see Chapter III and bibliography cited there), although the usual position for the finite verb is clause final. Much the same may be said of Avestan, although there are no detailed syntactic investigations of this language. In Old Persian, all the attested infinitives follow their verbs. Verb initial order is quite regular in certain constructions (Kent 1953:96), although again the usual place for the finite verb is at the end of its clause. Although objects in Old Persian almost invariably precede the verbs, finite or non-finite, that govern them, there is a strong tendency to place prepositional phrases after the verb. Despite certain difficulties, the basic word order of all the above languages can be, and has been, described as OV.

Word order in Homeric Greek is notoriously 'free'.³ There have been scholars willing to support both of the major contenders for statistical predominance, SOV and SVO. The 'indeterminacy' of Greek word order is, however, restricted to subjects, objects, and verbs. If one investigates other phenomena, matters are much clearer. Thus, recorded Greek at all periods has a preponderance of prepositions over postpositions; counts for Homer show that about 8 percent of the adpositions are used postpositionally. Infinitive complements, too, show a more or less consistent order throughout the history of Greek. For example, in spite of the great freedom of placement of object and verb that Ebeling found in Plato (1902:230), he also found that 593 of the 635 infinitives in the Protagoras and Gorgias followed the word that governed them. And Fischer, along with the preponderance of OV over VO that he noted in the 400 lines of Homer he used (E 512-909), found that 29 of the 34 infinitives were postposed to their matrix verb (1923:201).

I have looked at the placement of infinitives in Books 1, 2, 9 and 13 of the Iliad, and Books 1 and 24 of the Odyssey. These six books contain a total of 4030 lines and about 470 infinitives. This is clearly an adequate sample, especially in view of the results obtained. I chose these particular books because they constitute a spectrum of Homeric poetic topics--Il. 1 introduces the poem, 2 contains the catalogue of ships, 9 has Phoinix's embassy, and 13 has the battle for the ships--and because they range in date from the catalogue of ships in Il. 2 to the ending of the Odyssey, certainly early and late points in the epic oral tradition. The overwhelming

majority of infinitives is placed after the governing word. The actual figures are listed in the following table:

| | Preposed | | Postposed | | Not Classifiable | |
|-------|----------|------|-----------|-----|------------------|------|
| Il. 1 | 13 | 15% | 62 | 74% | 9 | 11% |
| 2 | 10 | 12% | 59 | 74% | 11 (2) | 14% |
| 9 | 9 | 9% | 83 | 81% | 10 | 10% |
| 13 | 12 | 11% | 95 | 86% | 3 | 3% |
| Od. 1 | 7 | 11% | 48 | 74% | 10 | 15% |
| 24 | 1 | 2.5% | 36 | 95% | 1 | 2.5% |
| Total | 52 | 11% | 383 | 80% | 44 (2) | 9% |

This evidence shows a clear preference for postverbal position of infinitives in Homeric Greek; the preponderance of postposed infinitives over preposed infinitives is more than seven to one. There is, moreover, a correlation between the age of the text and the ratio of postposed to preposed infinitives; in the earlier texts, the relationship is only six to one, whereas in the latest text, it is thirty-six to one. This difference, taken in conjunction with the results obtained by Frisk for later Greek texts, suggests a clear diachronic trend. For the great majority of infinitives, placement after, rather than before, the governing word became the preferred order. The next section examines the motivations of a shift from preposed to postposed order of infinitive complements.

Since most postverbal infinitives in Greek and Sanskrit do not result from the reduction of postposed clauses and are not merely added epexegetically, it remains to explain the motivations for shifting infinitives from the left to the right of their governing verbs. Four factors immediately suggest themselves. First is the shifting of elements to a postverbal position for purposes of emphasis or contrast. This device, in common with other stylistic procedures, may come to be overused in certain traditions and hence lose much of its emphatic value. Such a 'mechanization' of this stylistic device is recognized by Gonda (1959:69). Second, the fronting of finite verbs in clauses which also contain infinitives automatically yields postverbal infinitives. This factor seems not to have attracted the attention it deserves. For instance, many of the examples of postverbal infinitives cited by Gonda (1959) show the finite verbs in initial or in modified initial position. If there are enclitic pronouns which function as subjects or objects of the infinitives, they will, in such sentences, occur at some distance from the infinitives they must be construed with. In both of the preceding cases, the infinitives will typically occupy clause final position. Third, nominal sentences containing infinitives constitute another category in which infinitives usually stand in clause final position. Fourth, there is a strong tendency in all the languages under consideration here, with the exception of Hittite, to limit the amount of material that may occur before the finite verb. Since infinitives usually follow their subjects and objects, whether nouns or pronouns, they are most likely to be

shifted to the right of their governing verb. In this type of construction, the length of the clause plays a crucial role. That is, if there is only a subject and an object occurring with a finite verb, and there is no particular emphasis on any of these elements, then the order will be SOV in all of the languages under consideration. If the sentence is longer, then an attempt to preserve a minimal OV structure results in SOVX structures, where X will be additional material of any sort, without regard to its relationship to the remainder of the sentence. Where the postverbal material in such clauses is an infinitive, the possibility of reanalysis of word order is very great because of the existence of enclitic subjects and objects which have to be construed with the infinitive, and because of the overlap in structure between this type and the type with fronted verbs in modified initial position.

In Hittite, Greek, Sanskrit, and Avestan, the enclitic pronominal subjects and objects of embedded infinitives and some participles are subject to Wackernagel's Law.⁴ Although the preservative nature of this law has been universally recognized (e.g., Meillet 1937:370 characterizes it as 'la seule règle d'ordre des mots qui existe en indo-europeen'), the role that it seems to have played in word order change has not. The enclitic pronouns are placed after the first tonic element of the clause, even if this entails placing them at some distance from the element that governs them. This phenomenon is illustrated by exx. (21), (25-28), (33-35), (37), (40), (43-44), (48), (50) and (51) above. In Hittite, this feature of word order scarcely calls for comment,

since the unmarked position of the inflected verb is at the end of its clause, after any infinitives. In Sanskrit, Avestan and Greek, however, this order is striking since embedded infinitives may either precede or follow their matrix verbs.

Postverbal infinitives have traditionally been considered, along with other postverbal elements, adverbials, lengthy noun modifiers, second objects, etc., as 'Schleppen' (Delbrück 1878:48, 1888:25), 'afterthoughts' (Monro 1891:208) or 'amplifications' (Gonda 1959). These authorities also believe that there was a slight pause between the inflected verb and the amplification.

In a different linguistic context, 'afterthought' (or 'amplification') has been suggested by Larry Hyman as an 'activating' mechanism for syntactic change from SOV to SVO word order in Niger-Congo languages:

Speakers may find it necessary to append additional information after completing the basic sentence with the inherited SOV syntax. In doing so, a certain point is reached at which a restructuring of the syntactic order takes place, yielding a preferred syntax with the verb no longer final--and ultimately, a standardized syntax with the verb second (1974:141-2).

Within the Indo-European language group, Kim McCone (1979) has investigated 'The diachronic possibilities of the Indo-European "amplified" sentence: a case history from Anatolian', explicitly basing his study on Gonda's definition of 'amplified' sentences. Following Gonda, McCone does not differentiate between the different

structural types of amplifications, nor does he distinguish between sentences with verbs in modified initial position and those with true postverbal elements. Furthermore, although he demonstrates that Cuneiform Luwian and Lycian have more postverbal elements than does Hittite, and hence that amplifications have played a role in word order change within the Anatolian family, he does not demonstrate that amplifications were a feature of proto-Anatolian syntax and thus evidence for the existence of amplifications in Proto-Indo-European.

'Amplification' may be a legitimate process to account for the addition of postverbal nouns, adverbials or other modifiers to an otherwise complete sentence, but there are at least two reasons why it is unsatisfactory to account for postposed infinitives, one semantic, and the other formal. First is the obvious semantic factor: many sentences with infinitives after their matrix verbs make no sense without the infinitives. Secondly, it does not provide any way to account for the fact that infinitive complements in these languages are much more likely to be postposed than are nominal complements. For example, in Book I of the Iliad, the ratio of preverbal to postverbal placement of infinitives is 1 to 6. In this same book there are approximately 350 nominal objects. About 70 of these are single words; the ratio of preverbal to postverbal placement is 3 to 1. The remaining 280 are multiple word objects consisting either of conjoined nouns or of noun plus modifier. About 95 of these have all of the object phrase on one side of the verb or the other. Here the ratio of preverbal to postverbal

placement is 2 to 1. The other multiple word objects are split up around the finite verb. Other books of the Iliad and the Odyssey show approximately the same distribution of pre- and postverbal placement: Il. 13 has about 12 before the matrix verb and 93 after; Od. 1 has 7 before and 48 after; Od. 24 has 1 before and 36 after. In other languages comparable rules for the placement of infinitives are found: all of the infinitives in Old Persian are postposed, yet the language otherwise has a strong preference for SOV order, where the object is a single word. In multiple word object phrases, Old Persian usually splits up the phrase around the finite verb:

- 55) mām : Auramazdā : pātuv : utā : Vištaspam : hya : manā :
 acc. nom. 3sg. conn. acc. nom. nom.
 me Ahura Mazda protect and Vištaspa who my
- pitā : utamaiy : DHum (DSf 57-58)
 nom. conn.-gen. acc.
 father and-my country

'May Ahura Mazda protect me and Vištaspa who (is) my father and my country.'

Similarly, in the Avestan Yašt to Mithra, the ratio of preverbal to postverbal placement of infinitives is about 1 to 6. Single word objects typically precede their verbs, while longer object phrases are broken up around the verb:

- 56) āaṭ dīm daḥam auuāntəm yesniata auuāntəm
 conn. acc. lsg.pret. acc. instr. acc.
 and him I made as much to be worshipped as much
- vahmiata yaθa maṃcīṭ yim ahurəm mazdām (Yt. 10.1)
 instr. acc.-ptc. acc. acc. acc.
 to be honored as me Ahura Mazda

'Then I created it as as much to be worshipped, as much to be honored as me, Ahura Mazda.'

Examples such as these are characteristic of this language.

It should be noted that in Hittite, virtually all object phrases, no matter how long, precede the verb:

- 57) A.BU.ĪA-an-na-aš-za ^mMur-ši-li-iš 4 DUMU^{MEŠ} ^mHal-pa-su
 nom.-poss.-acc.-ptc. nom. acc. acc. acc.
 father-my-us-ptc. Muršiliš four children Halpasu-
 lu-pí-in ^mNIR.GÁL-in ^mHa-at-tu-ši-li-in SAL^{DINGIR}MEŠ.ÌR-in-na
 acc. acc. acc. acc. -conn.
 pis Muḡatalliš Ḥattušiliš SAL^{DINGIR}MEŠ.ÌR -and
 DUMU.SAL-an ḡa-aš-ta (Ḥattušiliš I, 9ff.)
 acc. 3sg.pret.
 daughter begot

'My father Muršiliš begot us four children NN.'

Here it is difficult to avoid the impression that in any of the other older Indo-European languages the word order of a sentence like (57) would be somewhat different, with the names of the children following the finite verb, as in this example:

- 58) ta ete māye asṛjanta suparṇīm ca kadrūm ca
 nom. acc. acc. 3pl.impf. acc.-conn. acc.-conn.
 they these powers they created Suparni-and Kadru-and
 (ŚB. 3.2.4.1, cited in Gonda 1959:31)

'They created these two powers, Suparnī and Kadrū.'

Although sentences with multiple word objects framing the finite verb are attested in great numbers in the early texts in Sanskrit, Avestan and Greek, the statistics presented above suggest that sentences with postposed infinitives would have been, and in fact were, a better model for word order change than the sentences with postposed nominal elements, which after all could often have

been interpreted as afterthoughts, and therefore not as violations of SOV word order. The question then arises: what is there about infinitives that they should come to be regularly placed after their matrix verbs before noun complements were regularly shifted to this position? Infinitives most obviously differ from nouns in that they may have subjects, objects and most of the other characteristics of complete sentences; that is, infinitive phrases are likely to be longer and more complex than noun phrases. Furthermore, the subjects and objects of infinitives are often enclitic pronouns, whose peculiarities include not only their Wackernagel's Law position, but also their extreme shortness. I propose that two factors, Wackernagel's Law and a consideration of length, in combination produced a transitional word order which can best be expressed as a kind of template based on surface cases: before the verb appeared nominative, dative and accusative nouns or pronouns; if there were more than one example of each of these cases then the second example of the case along with any other material was placed after the inflected verb. This pattern preserved a minimal SOV structure, although sentences were not necessarily complete without the material which followed the verb. One result of the operation of such a template is that the finite verb will very often appear in sentence-second position, the preferred position for enclitics:

59) phenam asyanti bahulāṃś ca bindūn
 acc. 3pl. acc. conn. acc.
 foam cast abundant and crops

(AV. 11.6.23, cited in Gonda 1959:65)

'They hurl foam and abundant drops.'

- 60) agnīm īle puróhitam / yajñásya devám ṛtvíjam /
 acc. 1sg. acc. gen. acc. acc.
 Agni I praise domestic priest sacrifice divine ministrant

hótāram ratnadhātamam (RV. 1.1.1)
 acc. acc.
 invoker best gift giver

'I praise Agni the domestic priest, the divine ministrant of the sacrifice, the invoker, the best bestower of treasure.'

- 61) tām yazāi surunuata yasna / miθrām vouru.gaoiiaoitim
 acc. 1sg. instr. instr. acc. acc.
 him I worship audible prayer Mithra with wide pastures

zaoθrābiiō (Yt. 10.4)
 instr.
 libations

'Him I will worship with audible prayer, Mithra of the wide pastures (I will worship) with libations.'

- 62) pólemón te pepheugótes ēdè thálassan (Od. 1.12)
 acc. conn. nom. conn. acc.
 war conn. fled and sea

'having fled war and the sea'

- 63) phílous dè prosepoiésato Lakedaimoníous (Hdt. 1,6)
 acc. conn. 3pl. acc.
 friends conn. they made Lacedemonians

'They made the Lacedemonians their friends.'

Wackernagel (1892:430ff.), using examples of this type and of the following type, argued that the normal position for the finite verb in main clauses in Indo-European was clause-second:⁵

- 64) Purrhòs epoiésen Athenaíos
 nom. 3sg.pret. nom.
 Pyrrhus made Athenian

'Pyrrhus the Athenian made (me).'

Wackernagel, of course, did not have Hittite evidence when he wrote his article, but his view about the position of the finite verb is untenable on internal grounds in Greek and Sanskrit: it is an artefact created by the attempt to preserve minimal OV structures.

The template for transitional word order proposed here not only provides an explanation for the earlier postposing of infinitives than of nouns, but also suggests a mechanism for the subsequent change in Greek at least from a SOV plus additional material type to a SVO word order type. The crucial factor here is the ambiguous nature of Wackernagel's Law pronouns. On the one hand, since they are marked for case, they act as independent words for the purposes of the template proposed above. But, on the other hand, they formed one phonological word with the preceding lexical item. Sentences containing an object enclitic pronoun before the finite verb and an infinitive or some other possible object after the finite verb are analyzable either as SOV plus additional material or as SVO order, and thus serve as one path for the transition from SOV to SVO order in Indo-European languages. Furthermore, they also may have served as a model for the reanalysis of other complex sentence types which had the same morphological structure. The preceding analysis is in keeping with the general principle that word order change takes place first in complex structures.

NOTES TO CHAPTER V

¹Ose discusses this example and others of a parallel construction (1944:82, 48-9). Noting that LÚMU-NAB-TUM is an Akkadian nominative Ose continues:

da aber die Hethiter mit dem akkadischen Kasusformen willkürlich umgehen und ein Nominativ hier sinnlos ist, steht nichts im Wege, einen Akkusativ als Objekt zum Supinum anzunehmen. . . . Und es besteht überhaupt keine Möglichkeit, LÚMU-NAB-TUM in irgendeine direkte syntaktische Beziehung zu UL a-a-ra zu setzen (1944:48).

I suggest that LÚMU-NAB-TUM actually represents a Hittite nominative and that the infinitive is to be understood as passive. Although none of the Hittite examples of this construction type have phonetic complements to show clearly the case of the (suggested) subject, other Indo-European languages have parallel constructions which show clear nominatives. I refer to exx. (19) and (31) below. If my interpretation of these Hittite examples is accepted, then they have the same structure as the clauses containing Ú-UL e-eš-zi (or NU.GÁL) and infinitive:

| | | |
|----------------------------|-------------------|--------|
| NINDA.KUR ₄ .RA | par-si-ia-u-an-zi | NU.GÁL |
| nom. | inf. | neg. |
| bread | to break | not |

(KUB XII 12 V 32, cited in Ose 1944:46)

'There is no bread to be broken.'

Ose (1944:46-7) argues very cogently for the interpretation of NINDA.KUR₄.RA as nominative in this clause.

²Jost Gippert (1978) presents an extensive discussion and profuse illustration of final infinitives in a number of Indo-European languages. A major conclusion is that

zu "Infinitiven" erstarrende Formen stehen ursprünglich in finaler Funktion. Der Übergang in die Objekts- bzw. Subjektsfunktion erfolgt in Verbindung mit Prädikaten, die von solchen Verben repräsentiert werden, die der Form ihre finale Konnotation belassen, die aber gleichzeitig die Interpretation der Form als ("patientischer") Objekt bzw. als Subjekt ermöglichen (1978:292).

³A. Meillet (1937:365ff.) uses examples drawn almost exclusively from the first book of the Iliad to support his views that 'Aucun mot n'avait dans la phrase indo-européenne une place définie et constante' and that 'C'est le grec qui garde le mieux l'usage indo-européenne de mettre d'abord le mot principal'. In defense of Meillet's position one may point out that Classical (and Homeric) Greek is generally thought to have a more nearly free word order than any other Indo-European language (stated outright or implied

in Weil 1869:44-5, Delbrück 1879:150, 1900:65, Kieckers 1911:99, Hirt 1937:264-5, Moorhouse 1959:69, Dover 1960:31, Watkins 1963:5).

In addition to the purely synchronic problems of indeterminacy, there is also the fact that Greek has a long recorded history (apart from the Mycenaean texts), and there are significant differences between Homer and the latest classical texts (cf. Moorhouse 1959:148); even within the classical period there are major differences between the earlier and later texts (cf. Frisk 1932:30ff.). Some of the differences are found in the position of negatives in the sentence (Moorhouse 1959:147-8 and 152-6), the frequency of object-verb as against verb-object order in simple sentences, and the distribution of postpositive and enclitic forms throughout the clause in later Greek as against the collection of these items after the first element of the sentence in Homer (Dover 1960:15). Moreover, the Homeric poems are, because of the antiquity of the oral tradition, repositories of artificial as well as truly archaic features, both syntactic and morphological. The most striking of these are the possibility of tmesis (the separation of preverb and verb; univerbation is obligatory in the classical and late Homeric periods) and the retention of some examples of postpositions.

These genuinely historical differences contrast sharply with some features of word order in the classical period that seem to represent stylistic variation on the part of the authors. Among these are different frequencies of OV to VO order in different genres, and even in different sections of the same author's work (statistics for Herodotus, Plato and Lysias are given in Dover

1960:27-30, and for a number of authors in Frisk 1932:16), different frequencies of hyperbaton (separation of nouns and their adjectives) in different genres (Lindhamer 1908:73), and the generally more free word order in verse (with the correlation of complexity of meter with freedom of order). Much of this variation is doubtless due to the fact that the earliest Greek texts were literary and immensely influential throughout the classical period. This influence provided the classical author with an extensive repertory of archaic features to imitate.

Most of the argumentation about Greek word order has been carried on in terms of three variables, viz. subject, object and verb. It is very clear from everyone's statistics that VSO was at all periods of the language less frequent than either of the two orders SOV and SVO. Thus, Kühner-Gerth (1904:595) set up SOV as the basic unmarked order, while Kieckers (1911) believes merely in the Mittelstellung of the verb without differentiating between objects and other possible postverbal material. Thumb follows Kieckers' results closely in his revision of Brugmann's *Griechische Grammatik* (1913:660), and Meillet-Vendryes (1924:529) present much the same point of view:

Il est manifeste par exemple qu'en grec le verbe tend à se placer au milieu de la phrase, encadré par les noms qui expriment le sujet, les régimes, les déterminations variées et dont la disposition est d'ailleurs variable.

A further proponent of this view is F. Sommer (1921:119). Other scholars, notably H. L. Ebeling (1902) and P. Fischer (1923), continued to find that verb final order was the most frequent.

Yet another position is maintained by Hj. Frisk (1932), who finds that the alternation between SOV and SVO in the texts he investigated was conditioned by genre: narrative tends to favor VO, while reflective ('konstatierend') passages favor OV. The highest frequencies of VO order are found in Herodotus and Xenophon (between 45 and 52 percent); Thucydides occupies a middle place with about 38 percent VO, and Plato and the orators have the lowest percentage of VO (between 23.9 percent and 32.6 percent). K. Dover concludes that his statistics for classical authors do not establish 'anything worth calling a syntactical rule of word order' and that they imply that 'all patterns of order which are describable in syntactical terms are secondary phenomena' (1960:31).

⁴Wackernagel demonstrated that enclitic pronouns (1892:333-42) and postpositive sentence particles (1892:377ff.) in Greek were regularly placed in the second position in the sentence, after the first tonic element. Wackernagel's rationalization of the Greek evidence enabled him to adduce comparable data from Old Indic, Old Iranian, Latin and Old Irish, and to reconstruct this syntactic pattern to Proto-Indo-European (1892:402ff.).

The discovery of Hittite added further support for Wackernagel's Law, since this language has a set of enclitic pronouns and particles which consistently occupy clause-second position. Furthermore, the relative order of the particles and pronouns when both occur in

the same clause is more or less the same from language to language. Although there is no etymological identity of these items, a type of structural identity does exist. Some typical examples are the following:

- a) nu-ya-kán i-it KUR ^{URJ}Ha-pa-al-la-ya-kán
 conn.-quot.-ptc. imptv. acc. -quot.-ptc.
 and come Ḫapalla

ku-e-ni na-aš-ma-ya-ra-at ar-nu-ut (Madḏuwattaš R26f.)
 imptv. conj.-quot.-acc. imptv.
 smite or -it take over

'Come (and) smite Ḫapalla, or take it over.'

- b) ēd' hína min perì patrōs apoikhoménoic éroito
 conn. conj. acc. prep. gen. gen. 3sg.aor.
 and so that him about father gone away he might ask

(Od. 1.135)

'so that he might ask him about his absent father'

- c) tād vo dīvo duhitaro vibhātīr / úpa bruva
 conn. acc. gen. voc. acc. prev. lsg.
 thus you heaven daughters shining prev. I speak to

(RV. 4.51.11)

'Thus I address you the shining ones, O daughters of heaven.'

- d) avi dīš aēm xšaiiamnō / āiθlm barāiti θβamča
 prev. dat. nom. nom. acc. 3sg.pres. acc.-conn.
 prev. them he being able terror he bears fear-and

(Yt. 10.37)

'He is able to bring them terror and fear.'

The synchronic productivity of Wackernagel's Law is shown by examples such as the following sentence from Herodotus:

e) ek dé hoi tēs autēs gunaikòs paĩdes egínonto
 prep. ptc. dat. gen. gen. gen. nom. 3pl. impf.
 from ptc. him the same woman children were born

'Children were born to him from the same woman.'

Here the enclitic pronoun hoi breaks up a prepositional phrase.

⁵Wackernagel derived further support for his view from the accentuation of verbs in the Vedas, since they are enclitic in main clauses (unless they begin the pāda) and accented in subordinate clauses. There is, however, a difference between elements which cannot take an accent under any circumstances, and those which are unaccented under certain conditions.

CHAPTER VI

POSTPOSITIONS AND PREPOSITIONS

Indo-Europeanists, on the basis of Greek and Sanskrit data, have traditionally distinguished between 'proper' and 'improper' prepositions (e.g., Delbrück 1888:432-3, Wackernagel 1926:155-7, Schwyzer-Debrunner 1953:421). 'Proper prepositions' are defined as those which may be used either as adpositions to nouns or as preverbs, e.g., Greek amphì 'around, on both sides of', anà 'up, along', apò 'from', dià 'through', en 'in', ek(s) 'from', e(i)s 'to, towards', epì 'on', parà 'alongside, by', prò 'before', pròs 'towards', hupèr 'over', hupò 'under', anti 'in place of', katà 'down', metà 'after, among', (k)sùn 'with'; Sanskrit ádhi 'upon', ánu 'after', antár 'between', abhí 'towards', á 'on, in, at, to', práti 'against', áti 'beyond', ápi 'upon', áva 'down from', úpa 'to, upon', pári 'around', tirás 'across', ácchā 'towards'. 'Improper prepositions', on the other hand, are those which are used only with nouns, e.g., Greek ákhri 'until, up to', mékhri 'as far as', méspha 'until', méste 'until', héneka 'on account of', khárin 'for sake of'; Sanskrit adhás 'under', antarā 'between', ántareṇa 'within, between', abhítas 'around, on both sides of', úttareṇa 'north of, left of', upári 'over', dákṣiṇena 'to the right of', parás 'beyond', vínā 'without', samáyā 'between', arvāk 'this side of', avás 'under',

rté 'without', purástāt, purá 'before', bahís 'outside', sáca 'with', sahá 'with', sākám 'with', hetós 'because of'. (Some elements are used only as preverbs, thus Ṛgvedic ápa 'away', úd 'out of', ní 'down', nír 'out of', parā 'away?', prá 'forwards', ví 'apart', sám 'together' [glosses after Delbrück 1888:440-70 passim].) The 'improper prepositions', furthermore, are often used with genitive nouns and themselves often have a clear nominal origin.¹

In Hittite too (or at least in the classical language), it seems to be possible to distinguish between two strata in the locational adverbs. For the group which is used with both nouns and verbs, one may cite anda 'in(to)', appa 'away', arḥa 'outward', katta 'down', parā 'out, forward', šarā 'up(ward)', appan 'behind', kattan 'at the side', piran 'in front of, before', šēr 'on top' (glosses after Goetze 1963:98). The group which either is used solely with nouns, or seems to be of transparently nominal origin, may be exemplified by ḥandaš 'according to', iḡar 'as, like' (+ genitive). Other elements appear to be used more freely with nouns than with verbs, for example appanda 'behind', ištarna 'between, among', menaphanda 'opposite, in front of', tapušza (tapūša) 'alongside, next to', parranda 'over, across'.

It is quite often difficult to determine whether a given element is used adnominally or preverbally in Homeric Greek and in Vedic Sanskrit. Difficulties of this sort arise primarily in sequences of oblique noun - local adverb - verb. In both languages (although to different degrees) the univerbation of preverb and verb

has not been carried out in all environments (cf. Kuryłowicz 1958: 97f., 151f., 316, 328).

In Hittite too 'the distinction between independent adverb, postposition and preverb is notoriously difficult' (Goetze 1963:98; cf. also Starke 1977:128-33). One example is the following:

- 1) na-aš-ta GAL DUMU.É.GAL 2 NINDA KUR₄.RA
 conn.-ptc. nom. acc. acc.
 and-ptc. chief palace noble two raised loaves
- GIŠ³BANŠUR-az ar-ḫa da-a-i
 abl. 'adv.' 3sg.pres.
 table from takes

(KUB II 13 I 59-60, cited in Zuntz 1936:9)

'And the chief palace noble takes two raised loaves from the table.'

In this example, it is unclear whether the ablative ending is governed by arḫa as postposition or by arḫa dāi as a compound in the meaning 'takes away'; the ablative suffix on the word for 'table' is sufficient to express the separative notion. The definitions of these categories given by Leonie Zuntz (1936:8-9) are a prioriistic and unsatisfactory. Frank Starke (1977:131) has argued that in Old Hittite there can be no clear distinction between preverb and adposition because those items which later may come to be interpreted as preverbs or postpositions are actually nouns with frozen case morphology; furthermore, they are used with verbs as nouns in directional cases, and they may be used appositionally to other nouns. Annelies Kammenhuber (1979:117ff.) offers a detailed critique of Starke's work. The ultimate origin of these local adverbs is very interesting but not particularly germane to my discussion here

because, at some point in their history, they became interpretable as adpositions, preverbs, or adverbs, no matter what their origin.

From the earliest period of the systematic study of Indo-European syntax, scholars have accepted the adverbial uses of the 'proper prepositions' as basic. Thus, Abel Bergaigne was of the opinion that both preverbs and adpositions developed out of earlier adverbs, and that when these particles were associated with nouns they followed them (1875/8:180). Although Delbrück did not believe in the original adverbial nature of the preverbs and adpositions, he did maintain that adpositions followed their nouns in his study of the word order of the Śatapathabrāhmaṇa (1878:46), and repeated it in the Grundlagen der griechischen Syntax (1879:153), but in the Vergleichende Syntax III (1900:104-9; cf. I, 1893:643-774) he no longer felt that the usage of the oldest Sanskrit prose could be reconstructed to Proto-Indo-European. His new opinion was based on the fact that in Vedic Sanskrit and in most of the other Indo-European languages either a mixed system, with some adpositions preposed and others postposed or variable, or a fully developed prepositional system prevailed. Delbrück concluded: 'Diese Zustände sind nur begrifflich, wenn man annimmt, dass in der Urzeit die Präpositionen sowohl vor als hinter dem Kasus stehen könnte' (1900:105). Furthermore, Delbrück maintained that this variation in position was a consequence of the use of these particles as preverbs, in which function they could occupy either of two positions, sentence initial or immediately before the verb (1893:648ff.). Thus, for Delbrück, adpositions were originally preverbs which came to be

associated with nouns only because of the ambiguity of reference in sentences such as

- 2) *dāśvāṃsam úpa gachatam*
 acc. 'adv.' 2du.imptv.
 worshipper to come
 (RV. 1.47.3, cited in Delbrück 1893)
 'Come to the worshipper.'
- 3) *blephārōn ápo dákrua píptei*
 gen. 'adv.' nom. 3sg.pres.
 eyelids from tears fall
 (Od. 14.129, cited in Delbrück 1893)
 'Tears fall from (her) eyelids.'
- 4) *Murmidónōn d' éks eimi* (Il. 24.397)
 gen. conn. 'adv.' 1sg.pres.
 Myrmidons and from I am
 'I am from the Myrmidons.'
- 5) *pári dyām ányad īyate*
 'adv.' acc. nom. 3sg.pres.
 around sky other goes
 (RV. 1.30.19, cited in Delbrück 1893)
 'The other goes around heaven.'
- 6) *metà dè mnēstērsin éeipe*
 'adv.' conn. dat. 3sg.aor.
 among and suitors he spoke
 (Od. 17.467, cited in Delbrück 1893)
 'And he spoke among the suitors.'

According to Delbrück, *exx.* (2) and (3) illustrate the origin of postpositional uses of these particles, while (5) and (6) elucidate

the origin of the prepositional uses (1893:654-659, 1900:105). I cite ex. (4) because it shows the ambiguity more clearly than does ex. (3). The development of a consistent order, whether postpositional or prepositional, will have taken place only in the individual Indo-European languages. This view is similar to that defended by Antoine Meillet, who believed, however, that both the preverbal and the adpositional uses evolved from earlier adverbial functions (1937:193-4). Kuryłowicz (1964:17ff.) too maintains that the use of 'adverbs' as adpositions developed from their use with verbs. This development hinged on the 'formal renewal of the old adverb' and 'on the previous existence of a secondary function (semantic or syntactical or both) of the old adverb' (1964:171).

In Homeric Greek, the improper prepositions, héneka, khárin (and péri in its non-locational meanings), usually follow their nouns, whereas the placement of the 'proper prepositions' is quite free; they may precede or follow their nouns or be interposed in noun-adjective sequences: apò khthonós (Il. 5.13) 'from the ground', theōn ápo (Od. 6.12) 'from the gods', pròs makròn Ólumpon (Il. 24.694) 'towards great Olympus', gaiês ápo patrídos (Il. 13.696) 'from his paternal land', thoàs d'epì nēas (Il. 24.1) 'on swift ships'. For a number of the prepositions, the difference in placement entails a difference in accentuation: preposed, they are proclitic; postposed, they are accented (the 'anastrophe' of the classical grammarians). Explanations for the varying position of these elements fall into two groups. Traditional grammarians (Delbrück 1900:105, Wackernagel 1926:197, Schwyzer-Debrunner 1950:420,

Meillet 1937:150-2, Chantraine 1953:83) maintain that the original placement of these items was free, and that the freedom shown by Homeric usage vis à vis the strict preposing of the classical language is simply a reflection of the earlier situation. Typologists (e.g., Lehmann 1971, 1974:136-8) maintain that variation in placement of adpositions is caused by word order change. According to these scholars, since Proto-Indo-European was an (S)OV language, on typological grounds one would expect postpositions and not prepositions (Greenberg 1966); therefore, when late Proto-Indo-European and the individual Indo-European languages were in the process of changing from OV to VO order, they would have shifted postpositions to prepositions. There are objections to both the traditional and the typological explanations. Moreover, very little has been said about the operation of such a shift from postposition to preposition; in this chapter, I propose to describe one part of it and to call attention to a parallel development with verbs and their objects.

Homeric word order is relatively 'free', but certain subsystems show a much more easily characterizable word order. One such subsystem is constituted by infinitives (see Chapter V) and another by adpositions.

The Homeric poems show an overwhelming predominance of prepositions over postpositions. The following types of constructions are found:

- 7) Np theōn ápo (Od. 6.12) 'from the gods'
 thrónōi éni (Il. 15.142) 'in the chair'
 pónton épi (Il. 7.63) 'on the sea'

- 8) NpA galēs ápo patrídos (Il. 13.696) 'from his paternal land'
 íiion eis eúpōlon (Il. 16.575) 'to Troy (which has) good horses'
- 9) ApN thoàs epì nēas (Il. 24.1) 'on swift ships'
 hierōus katà bōmōús (Il. 2.305) 'onto sacred altars'
- 10) ApNA emà pròs dōmata kalá (Od. 8.41) 'to my beautiful house'
 thoēi sùn nēi melainēi (Od. 3.61) 'with a swift black ship'
- 11) pN apò khthónos (Il. 5.13) 'from the ground'
 epì karpōi (Il. 24.671) 'by the wrist'
- 12) pAN pròs makròn Ólumpōn (Il. 24.694) 'towards great Olympus'
- 13) pNA sùn nēi poluzúgōi (Il. 2.293) 'with a many-benched ship'

A. S. Haggett (1902) counted the 'proper prepositions' in Homer and found that of 8198 examples some 255 were postpositions governing single nouns (Np). This is, as he points out, about 3.1 percent of the total. With phrases consisting of an adjective and a noun, some 390 (4.7 percent) have the adposition between the noun and its modifier (NpA), while 600 (7.3 percent) have the adposition between the adjective and the noun (ApN). The remainder are prepositional and have the order pN, pAN or pNA, etc. (adjectives and nouns are freely rearranged). If the figures for all the non-preposed examples are combined, the total is 1245 (somewhat less than 15.2 percent). Haggett explains the postposed examples in the following words: 'In

Homer where the transition from local adverbs to prepositions proper was not yet complete and the position of the preposition had not yet become rigidly fixed, postposition is to be regarded as a freedom of the language' (1902:182). Virtually the same explanation is given by Chantraine (1953:83), who maintains that the position of the prepositions 'était originellement fort libre'. Mycenaean Greek, in contrast to Homer, seems to show no trace of the prepositional use of these particles (cf. Villborg 1960:119-22, 139, Ventris and Chadwick 1973:90). This fact is surprising because of the early date of the tablets, yet Mycenaean syntax in general seems to represent a later stage in the history of Greek than does the syntax of Homer.

There are two strong arguments against the explanation of the placement of these particles as free. First, the usual accentuation of the prepositions in Greek is proclisis: apò, epì, perì, hupò, amphì, prò, eis, etc.² These elements are orthotonic only if they are placed after their nouns:

- 14) theōn ápo (Od. 6.12) 'from the gods'
- 15) pόνton épi (Il. 5.63) 'on the sea'
- 16) hèn péri (Il. 15.142) 'about her'
- 17) khersìn húpo Tróōn (Il. 11.827) 'at the hands of
the Trojans'

That this accentuation, and not proclisis, is inherited from Proto-Indo-European is shown by Vedic Sanskrit ápa, ápi, pári, úpa, abhí, prá (Vendryes 1938:69-71, 243-4; Schwyzer I, 1953:386-7, II 1953:420). The Sanskrit adpositions retain their accent no matter where they are placed. In view of the statistics presented above,

this position (anastrophe) and accentuation of the adpositions is clearly an archaism in Homer. Moreover, comparative evidence from Vedic Sanskrit and Hittite makes it very likely that the postposed order is inherited and that the development of preposing was secondary in Greek.

Second, adpositions do not occur after sequences of adjective plus noun (ANp) or noun plus adjective (NAp) in Homer; Delbrück (1900:106) states that this placement is 'unhomerisch'. In fact, in Books 1-17 of the Iliad and Books 1-3 of the Odyssey, I have found no instances of such patterns with proper prepositions and only such examples as the following with improper prepositions:

18) ereugoménēs halòs éxō (Il. 17.265) 'outside the raging sea'

19) liménos polubenthéos entós (Il. 1.34) 'inside (of) the deep harbor'

If the governed noun has a modifier, the adposition must either precede both or be placed between the noun and its modifier. In such phrases, a further peculiarity of the accentuation of these particles is found. According to the ancient grammarians, anastrophe occurs only in the sequence NpA, and not in ApN (Vendryes 1938:247). Thus, the accentuation of eni in (20) contrasts with that in (21):

20) néess' éni pontopóroisi (Il. 3.240) 'in seafaring ships'

21) piōtēi enì nēsōi (Od. 10.3) 'on a floating island'

Delbrück thought that the type NpA was the older of the two, and that the type ApN had its origin in a 'modifizierende Nachahmung'

of the earlier sequence (1900:106). If the placement of these particles were indeed free, then there could be no motivation for the non-occurrence of the sequences ANp or NAp or for the difference in accentuation between ApN and NpA sequences in Homer.

Against the typologists one can argue that the shift from object-verb to verb-object order cannot have caused the shift of postposition to preposition in Greek. According to figures I have collected for six books of the Iliad and Odyssey, the ratio of OV to VO (where there are full noun objects) is about 2 : 1. My figures agree with those of P. Fischer (1924:200), who found that OV sequences outnumber VO sequences by about two to one;³ Fischer, however, looked at only 400 lines of Homer. As against this ratio of OV to VO, the ratio of proper preposition to postposition is about 13 : 1 (see figures from Haggett 1902, cited above). Thus, the shift from postposition to preposition has proceeded farther than the shift from OV to VO. Furthermore, a simple shift from postposition to preposition will not account for the interposed structures which are quite frequent in Homer.

Although the shift from postposition to preposition cannot have been caused by a shift in verb-object order, there are certain similarities in the course it took. Various scholars have argued that 'amplified sentences' are transitional between SOV and SVO orders (so Hyman 1975, Holland 1976, 1977, McCone 1979). Amplifications will often result in SOVO structures. In the previous chapter, I argued that lengthy infinitive phrases may be split up around their governing verbs, resulting in SOVX structures similar to those of

- 27) Umb. ocrer /pehaner . paca (VIa 19-20) 'arcis piandae
causa'

Neither of these words is an inherited adposition, and both take genitive objects (cf. von Planta 1897:440-1 on the placement of adpositions in Oscan and Umbrian, and Buck 1928:205-11).⁴ In general, word order in Oscan and Umbrian is very similar to that found in Homer and in archaic Latin inscriptions (von Planta 1897:490).

Latin has postpositions only with pronouns: mecum 'with me', tecum 'with you', quo ab 'from which'; there is no NpA in prose (Delbrück 1900:107), although this pattern is well represented in early poetry:

- 28) NpA arbusta per alta (Ennius) 'through the high trees'
29) NpAA damno cum magno meo (Plautus) 'with my great injury'
30) ApN magna cum cura 'with great care'

There seems to be no ANp, with the possible exception of the 'improper prepositions' gratia and causa; Latin shares this restriction on the placement of inherited adpositions with Greek and Oscan and Umbrian.

This restriction on the placement of adpositions is in sharp contrast with the situation in Vedic Sanskrit and in Hittite. In Vedic Sanskrit virtually all of the possible combinations of N, A and P are found (I cite examples from Delbrück 1900:105-6 and Delbrück 1888:440-70):

- 31) ANp imāñī lokāñ āti (ŚB. 1.2.1.12) 'beyond these worlds'
- 32) NAp jātañ ubhāyāñ antār (RV. 4.2.2) 'between the two races'
 prāvato mahīr ānu (RV. 10.14.1) 'along the great slopes'
- 33) NpA rōdasī antār urvī (RV. 7.12.1) 'between the two broad worlds'
 tanvām pāri svām (RV. 3.53.8) 'over one's own body'
- 34) ApN ubhé antā rōdasī (RV. 4.7.8) 'between the two worlds'
 hiranyāyāt pāri yōneḥ (RV. 2.35.10) 'from the golden womb'
- 35) pAN ā tr̥tīyāt pūruṣāt (TS. 5.4.10.4) 'to the third generation'
- 36) pAANA antār mahī br̥hatī rōdasīmé (RV. 7.87.2) 'between these two great high worlds'

The word order of Vedic prose is basically SOV, although postverbal material is tolerated; adpositions usually follow their nouns (with the exception of ā and pūra 'before', Delbrück 1878:46, cf. also Verpoorten 1977:285-90). In poetry, on the other hand, the word order is free, although still predominantly SOV, and the placement of adpositions shows a corresponding freedom, as the examples cited above demonstrate. Delbrück notes further (1888:21) that in contrast to the inherited adpositions the 'improper' prepositions usually precede their nouns.⁵

Hittite is a fairly rigid SOV language, and it is exclusively postpositional with the exception of a few examples in early texts where the object of the adposition is an enclitic pronoun (Friedrich

stages of this process can be correlated with the acceptability of the inherited ANp sequence: early if it is still accepted and co-occurs with the more recent interposed and preposed orders, and late if ANp no longer is productive.

In post-Homeric Greek the occurrence of postpositions is limited to a few items, khárin, hénéka, péri (in non-locational meanings). The newly invariant proclitic prepositions and preverbs undergo further changes in a number of dialects.

Apocope of disyllabic prepositions and verbal prefixes is a complex process which occurs under different conditions and affects different items from dialect to dialect in Ancient Greece. Moreover, in certain dialects this process expanded its scope of application through time so that for example in the Thessalian texts of the late 3rd century apocope is more widespread than in those from the 5th century. On the other hand, many dialects gave up or restricted apocope because of the spread of the Attic-Ionic based koine. In Attic-Ionic apocope is virtually non-existent, but in the other dialects it is found both as a productive process and as an irregular feature which seems to be restricted to formulas and to compounds. After a brief survey of the principal environments in which apocope is found in the dialects, I will turn to a discussion of the theories that have been proposed to account for this phenomenon. In conclusion, I will discuss the role of accent and proclisis and will present parallels from certain other Indo-European languages.

Apart from accent, three factors are involved in the operation of apocope: the shape of the medial consonant of the (C)VCV

prepositions and verbal prefixes affected, the point of articulation of the following word initial consonant, and the assimilation of the medial consonant of the preposition/preverb to the initial consonant of the following lexical item. Such complex conditioning for a vowel deletion rule appears strange at first sight. Apocope may affect anà, parà, katà, potì, pedà, apò, epì, hupò, perì, but not metà, although it has the appropriate phonetic shape. It is merely through historical accident that the medial consonants of the apocopated preposition/preverbs are dentals or labials, since there are no inherited preposition/preverbs with medial velars. The restrictions on the word initial consonants of the following lexical items are as much a feature of word class as of phonetic conditioning. Apocope is most widespread after n and r, more restricted after t and d, and least productive after p.⁷

Various explanations of Greek apocope have been proposed. Perhaps the most trivial of these is that which assumes that the elided prevocalic forms of the preposition/preverbs were generalized to preconsonantal position. Brugmann (1913:165) was the principal supporter of this view. In general his position has merely been dismissed without argumentation (so Schwyzer 1953:404). This theory immediately founders on the fact that only the preposition/preverbs listed above undergo apocope, whereas all of the disyllabic preposition/preverbs have elided forms, e.g., met'anemoĩsi 'with the winds' but metà toĩsin 'among them'. Hugo Ehrlich proposed a rule to account for apocope which states that the medial vowel in a tribrach sequence is deleted if it is word final (1912:20). Ehrlich based

his rule on Homeric examples and seems not to have noted that it has no explanatory value whatsoever since tribrach sequences are not found in dactyls. Paul Kretschmer worked out a similar rule for Hellenistic Greek, but here the emphasis was on the avoidance of successive CV syllables containing the same vowel, cf. the development of Bereníkē to Berníkē (1912). This rule can be projected back to an earlier stage of Greek to account for the suppression of the medial vowel in such sequences as katà tás (1912:35), and for apocope before the article in Doric and NW Greek in general, but it is of little help in dealing with Aeolic apocope, since the latter process feeds an assimilation rule. Szemerényi (1964) maintains that syncope of unaccented high or mid vowels is a well attested phenomenon in Greek. Although he specifically excludes apocopated preposition/preverbs from consideration (1964:289), it is of interest for our purposes that in the majority of the cases of syncope that he discusses the accent is on the syllable immediately following the syncope (1964:264-5). Of course, the majority of the preposition/preverbs that undergo apocope have final low vowels.

A tentative hypothesis to account for apocope by the use of vocalized and non-vocalized reflexes of laryngeals has been offered by R. S. P. Beekes (1969:255-6). Taking aná parà katà as the original nucleus of forms from which apocope spread, he suggests that the final -a is a reflex of the second laryngeal in vocalic function, while the 'apocopated' forms continue the consonantal (i.e., zero) values of the laryngeal.⁸ However, Beekes cannot set up natural environments for the different reflexes of the laryngeal.

Finally, J. Schmidt (1902:17) attributed apocope to the development of proclisis in the preposition/preverbs. In non-proclitic forms there is no apocope, so that 'Jeder dialekt hatte also früher je eine volle und eine verkürzte form jeder zweisilbiger praeposition, welche auf vocal + cons. + kurzen vocale endete, zur verfügung' (1902:17). In the remainder of this chapter, I would like to amplify and motivate Schmidt's explanation.

In an earlier period in the history of Greek these elements were independent lexical items with their own accents (see above). The shift in position of these elements was responsible for their loss of accent when used adnominally (Vendryes 1930:69-71, 243-4). However, the development of proclisis in these items is not sufficient to explain their apocope; presumably all Greek dialects had proclitic prepositions. When these items are used as postpositions they never undergo apocope. As verbal prefixes separated from their verbs (in 'tmesis') they may be apocopated, but this occurs only in such Homeric examples as ἄν δ'ἄρα . . . βέseto (see note 7), where the preverb is followed by an enclitic connective with an initial dental. This, then, is for preverbs virtually the same environment as that before the definite article for the prepositions in the Doric and NW dialects, although the latter development must be later than the former, since the anaphoric pronouns ho hē tó had not yet become articles in the Homeric corpus. In Indo-European the position of preverbs varied. Preverbs could either stand in sentence initial position (or in modified initial position), or they could stand immediately before the verb (cf., e.g., Bonfante 1931). The

principal Common Greek innovation in accent vis à vis Indo-European was the limitation of accent placement to the final three syllables of a word. Since most inflected verbs have either a total of three syllables or a two mora ending, this innovation effectively deprived most preverbs of accent, so that they became proclitic. Presumably the development of proclisis of most preverbs contributed to the spread of obligatory univerbation of preverb and verb. In fact, all preverbs in Greek are proclitic, including those in 'tmesis'. Only those preverbs which follow their verbs in Homer are accented like the prepositions in 'anastrophe'.

In Attic-Ionic, nouns and verbs are subject to different rules of accentuation. The three syllable limitation holds for both word classes, but verbs have recessive accent, while many classes of nouns retain 'free' accent placement. Very little is known about the accentual practices of the other dialects, but the available information is conveniently summarized in Vendryes 1938. The information derives from ancient grammarians and is for the most part restricted to observations about literary texts, but there must have been some resemblance between the accentuation of the literary documents and the accentual practices of the dialects. Of course, there is no guarantee that the Doric dialects all had the same accentual patterns, but on the other hand, they all behave in much the same way as far as apocope is concerned. As far as is known, Doric differs greatly from the other dialects in that it seems not to have favored recessive accent in verbs or in some of the noun classes that have recessive accent in Attic-Ionic, so that it has ephéron

'I carried', elábon 'I seized', elúsan 'I released', as against Attic-Ionic épheron élabon élusan, and ampélos 'vine,' násos 'island', skór 'excrement' as against Attic-Ionic ámpelos nēsos skōr (Vendryes 1938:259-60). Furthermore, Doric did not contrast acute and circumflex intonations on long penultimates: paída 'child', gunaíkes 'women', kheíres 'hands', amúnai 'ward off'. Only one fact about Aeolic accentuation is known, but it is of signal importance, for this dialect had recessive accent in all word classes except prepositions (Vendryes 1938:61, 264). Unfortunately, nothing at all is known about Arcadian accentuation.⁹

It is noteworthy that each of the major dialect groups has somewhat different accentual practices and different conditions for apocope. In Aeolic, where apocope is most widespread, the inherited accentuation has been given up in all word classes. This change is quite early and is found in the oldest strata of the Homeric poems (Wackernagel 1914). In Doric, the verb forms cited above show that the augment and hence other verbal prefixes did not bear the accent. It seems likely that the same restriction would hold for verbal nouns compounded with preverbs. Thus both verbs and definite articles were preceded by proclitic preposition/preverbs in all environments, and the apocopated vowel was immediately pretonic in the majority of cases. Since the use of articles with nouns is a more recent feature in the history of Greek than is the compounding of preverb and verb, the original locus of apocope in these dialects must have been in preverbs, and apocope before the article must have been a later development. In Attic-Ionic, preverbs were freely

accented (within certain limits) if the verb was short enough. There is no convincing explanation for why Attic-Ionic does not show apocope.¹⁰

In any event, the dialects that do have apocope have altered the inherited accent rules rather more than Attic-Ionic has: Aeolic by generalizing recessive accent in all environments, thus giving up contrastive accent as part of its phonological system, and Doric by generalizing processive accent, especially when it leads to the avoidance of accent on the augment or on preverbs, since this accentual pattern was a feature of Indo-European under certain conditions.¹¹ Even though there is no direct evidence for this point, I would like to suggest that apocope originated in compound verbs in subordinate clauses, where the preverbs were proclitic in Indo-European (Wackernagel 1877, Meillet 1937:368, Kuryłowicz 1958: 151-2), and spread from there when the inherited accentuation of verbs in main clauses was given up. The three syllable limitation on accent placement, as stated above, effectively merged the accentuation of verbs in main and subordinate clauses in the great majority of cases. Such a theory would have the advantage of explaining why apocope is basically an optional rule in the dialects that have it: there will always have been a residue of verb forms which, because of their length, had the accent on the final syllable of the preverb.¹² Since deverbal nouns compounded with preverbs are accented in much the same manner as the verbs they are based on, apocope must be an early development in this category of words as well. Apocope of prepositions before nouns is somewhat less wide-

spread in the dialects; this fact points to a later origin for this phenomenon.¹³ Latest of all is the development of apocope before the article. The accentual preconditions, and, on a different level, the shift from postposition/preverb to preposition/verbal prefix are as important for the operation of apocope as are the requirements that it operate only between dentals in Doric or that the resulting clusters be homorganic in Aeolic.

In fact, it is by noting the alternation between monosyllabic preposition/verbal prefix and disyllabic postposition/preverb that one may find parallels to the Greek development. In Latin, although there are no inherited Indo-European disyllabic postpositions, there do exist monosyllabic prepositions and verbal prefixes which are related to the disyllabic Indo-European forms. Thus to Old Indic ápa áva antár ápi abhí úpa pári correspond respectively Latin ab au- (cf. au-fugio) inter ob amb sub per.¹⁴ In the classical period Latin had a stress accent restricted to the final three syllables of the word, while prehistoric Latin is supposed to have had strong initial stress. The argument for prehistoric initial stress in Latin is based on three kinds of evidence: vowel reduction in non-initial syllables (facio/conficere), vowel syncope (undecim < uno-decim), and certain metrical practices in Plautus and Terrence, where words of the shape CVVC had initial stress (Sommer 1902:96-9). Sturtevant distinguishes between prehistoric syncope and syncope that occurred in the Classical period (1940:177-9). Classical syncope is usually post-tonic. For the prehistoric process he maintains that vowels may be lost in original final, penult and antepenult syllables, as well

as in monosyllabic enclitics, so that 'The only clear limitation upon the process is that it never occurs in initial syllables of full words' (1940:177). Yet Sturtevant's examples all show that it is actually the second syllable of the word (counting from the beginning) that shows vowel loss. In fact, the case for initial stress in prehistoric Latin has been overstated. The vowel reductions occur primarily in compound verbs, and if the Indic evidence is to be trusted, the largest class of these had the accent on the preverb to begin with. All that is necessary here is to assume that there was a generalization of the reflexes of the forms with accented preverbs. The syncope of vowels that otherwise would have had the accent in Classical Latin may in some respects continue inherited accentual patterns too. For example, in a compound like auceps (< *aui-ceps), the accent would have been on the verbal element in Indo-European, and syncope could have occurred pre- rather than post-tonically. This consideration holds for most of the standard examples given in the handbooks. There is also an inherent implausibility in the assumption that between Indo-European and Latin there were two separate accent shifts, with the final one very similar to the innovation in Aeolic Greek. In this context it is interesting to note that the classical grammarians thought that Latin was a type of Aeolic Greek precisely because of the three syllable accent rule in all word classes. The regular apocope of prepositions in Latin is yet another point of similarity. Hirt (1929:72-9) has made similar criticisms of the standard view of the prehistory of the Latin

accent. Pretonic vowel loss seems to be regular in Germanic preposition/preverbs too.

In Gothic, monosyllabic prefixes are found as a rule in deverbal nouns, while disyllabic prepositions are found in composition with primary nouns. Thus all action nouns in -eins have only the short forms of the preposition/preverbs, cf. and-huleins 'uncovering', faur-domeins 'prejudging', and forms such as and-stald 'presentation', faur-hah (~ faura-hah) 'curtain', faur-stasseis 'supervisor', contrast with anda-hait 'knowledge', anda-waurdi 'answer', faura-dauri 'street' (forms from Krause 1968:70-1). The traditional explanation for this alternation is that the short forms are found in pretonic position, while the disyllabic forms bear the accent (Krause 1968:70-1). The forms which are most clearly marked as deverbal have proclitic prefixes. And in Old Norse, disyllabic postpositions and adverbs alternate with monosyllabic prepositions in the Edda and in early skaldic verse: fyrir/fyr (cf. Goth. faura/faur), yfir/of (OHG oba), under/und (Goth. undar). In classical Norse prose, this alternation has been completely eliminated in favor of the disyllabic forms. This alternation is described in Heusler (1964:143-4). The use of the short forms was considered to be a feature of the poetic language by later writers, but the principle of repartition is usually observed in the Edda and in early skaldic verse. The subsequent replacement of the monosyllabic forms by the disyllabic forms is parallel to the development that Schmidt (1902:17) posited to account for the absence of apocope in Attic.¹⁵

In summary, Greek apocope can be viewed as a part of a broader

process which involves the shift from OV to VO order and consequently the shift from postposition to preposition, the loss of Indo-European free accent placement, the development of proclisis in preposition/preverbs, and then the loss of the final vowel of the disyllabic proclitics. Viewed in this manner Greek apocope has parallels in a number of Indo-European languages, all of which have given up the inherited accentuation and have been subject to word order change. The ultimate motivating factor for apocope appears to have been syntactic change.

NOTES TO CHAPTER VI

¹The boundary between the categories 'proper' and 'improper' cannot always be sharply drawn; the latter is the productive category, while the former consists of the inherited forms. Both categories contain different chronological layers. Speyer (1896: 24-9) gives a terse, though insightful, sketch of the development of new adpositions in various periods of the history of Sanskrit. These new adpositions are invariably adverbial constructions of oblique case forms of nouns. According to Wackernagel (1926:158ff.), the distinction between 'proper' and 'improper' does not hold in Latin.

²The writing of a grave (or acute) accent on the final syllable of the prepositions is only a graphic convention (Vendryes 1938:66-9).

³Fischer's figures are given in terms of Anfangs- Mittel- and Endstellung of the verb; I arrive at the proportion given by reinterpreting these categories and by combining the totals for SOV and for SOV with additional postverbal material. Fischer does give figures for S, O and V in the passage he investigates.

⁴Oscan repeats the adposition in Ve. 147 húrtín . / kerríín . Umbrian regularly postposes its monosyllabic adpositions which do not end in consonant clusters; all the other adpositions are preposed.

The addition of the adposition to both noun and adjective has a parallel in Avestan hauuanīm ā ratūm ā (Y. 9.1). Cf. further the development of Lithuanian locatives of -a stems: rañkojė (Stang 1966:199).

⁵W. P. Lehmann has proposed that the development of postpositions in New High German is related to the fixing of SOV order in dependent clauses in that language (1971). It is interesting to note that almost all of the adpositions in question--entlang zufolge gemäß entgegen etc.--are phrasal or nominal in origin. In view of the Hittite, Vedic, Greek and Italic evidence for the placement of newly created adpositions, it would seem that Lehmann's proposal has to be rejected.

⁶The absence of postpositions in Mycenaean can be correlated with the fact that although all three of the principal word order sequences SOV, VSO and SVO are attested, SVO is the most common, and SOV with no postverbal material the least frequent. In fact, objects may precede their verbs only if they are one word long (not counting preceding adnominal genitives). If the object is more than one word long, or has following dependent material, either the whole phrase is placed after the verb, or it is broken up after the first accusative nominal form so that the latter precedes the verb and the remainder of the phrase follows. This word order pattern (SOVX) is much more frequent than simple SOV, although it is still much less frequent than SVO order (see Appendix).

⁷Thus, ana 'up, along' and para 'alongside, by' are found in apocopated form in virtually all of the dialects except Attic-Ionic:

| | | |
|-------------|--|---|
| Lesbian: | onsteíkhei onkaléontes ompétason | par toutōn parkálei par philōn |
| Thessalian: | aggrápsai antetheĩ | par tòn eikóna parbaĩnoi |
| Boeotian: | aggrápsē antítheiti appasámenos | parkékleike pardotheĩsan par Fiphiádan |
| Arcadian: | agkarussóntō anthēnai ampeplegménas | par gegenēmínos par tánu par mésan |
| Phocian: | aggrápsai andeksámēnoi ammónion | par ksoās par tòn prutaníōn parbálloito |
| W. Locrian: | ankhōreĩn andikházōnti ampráksantes | |
| Elean: | sunallúoito | par tò grámma parbaĩnoian |
| Laconian: | an gàr tòn pólin anthénta amptámenos | par th'hiaròn skópelon párphaine |
| Heracleian: | ankotharíonti ántomos ampólēma | pardónti par pénte Fētē |
| Argolic: | agkátharsin antíthemen anpaistēra | parkhrēma partamónti par Pandárou |
| Cretan: | angrápsai andéksetai am potamón | par Knōsíōn parthúmata párbolon |

(Except for the Lesbian material, which I collected myself, the preceding examples were culled from Bechtel 1921, 1923, 1924.)

In the case of the preposition/preverbs with medial d or t,
apocope is much less widespread:

| | | |
|-------------|--|----------------------------------|
| Lesbian: | kak kephálas kas(s)poléō kábballe | |
| Thessalian: | kát te tàs epistolàs katthémén kap pantòs khrónoi | pokgrapsaménois pot tàn pólin |
| Boeotian: | kat tò psághisma kata gán kē kat thálattan kag gán (?) | pok katóptas pottaksántōn |
| Arcadian: | makeiménau kathésthai kamēna | petoĩs Foikiátai(s) |
| Phocian: | katan aksían kat tò pélethron | pot tôn théon potthétou |
| W. Locrian: | katās sunbolās | potoũs dikastēras |
| Elean: | katògráphos kathúsas kadalēménoi | potòn theón |
| Laconian: | kat tó + katthēratórin kákķē (< katáķē) kátķeude (Hesych.) kabbalóntes | pot tón + potthéntes |
| Heracleian: | kat tá + prokaddedikástho | pot tón + potthéntes |
| Argolic: | katà (= kat + ta) FeFrēmena katthénti kabolá | potò (= pot + tò) thúrōma |
| Cretan: | katò arkhaïon (katà is apocopated only before the article, Bechtel 1923:720) | |

(Again, all these examples are from Bechtel 1921, 1923, 1924.)

And finally, apocope after a labial is found in only two dialects:

Lesbian: ap patérōn máthos
 Alc. 104

Thessalian: at tās presbeías et toĩ paréontos
 at tån koinån
 pothódoun
 appeĩsai
 hupprō tās

(Bechtel 1921).

In addition to these, the apocopated forms in Homer are generally agreed to be an Aeolic feature:

kàk kephalēs kàr rhóon
kaddūsai kàn nómon appémpsei
káppese kàm méson ábbalen hubbálllein

(Schwyzer 1953.1:407).

These examples may be summarized in tabular form:

| | ana | para | kata | poti | peda | apo | epi | hupo | (peri) |
|------------|-----|------|------|------|------|------|------|------|--------|
| Lesbian | + | + | + | o | x | P | P | P | + |
| Thessalian | + | + | + | + | + | P/ar | P/ar | P/ar | + |
| Boeotian | + | + | +? | T? | x | - | - | - | + |
| Arcadian | + | + | + | + | T | - | - | - | + |
| Phocian | + | + | T | T | o | - | - | - | + |
| W. Locrian | + | + | T | T | o | - | - | - | + |
| Elean | + | + | T | T | o | - | - | - | + |
| Laconian | + | + | + | T | o | - | - | - | + |
| Heracleian | + | + | T | T | o | - | - | - | - |
| Argolic | + | + | T? | T | x | - | - | - | - |
| Cretan | + | + | T/ar | T | x | - | - | - | - |
| Attic | - | - | - | o | o | - | - | - | - |
| Ionic | - | - | - | o | o | - | - | - | - |

o = item does not occur in the dialect
 - = apocope does not occur
 + = apocope occurs before labials, dentals and velars
 T = apocope occurs before dentals
 P = apocope occurs before labials
 ? = evidence limited, possibly one or two counterexamples
 x = item occurs, but not in an environment for apocope
 ar = apocope before the article only

With the exception of Laconian, the Doric and NW Greek dialects show very much the same conditions for apocope. In this respect, it is noteworthy that Heraclea, a Laconian colony, goes along with the other Doric dialects rather than with its mother city. The traditional explanation for this discrepancy is that Laconian shows a strong Arcadian admixture (Bechtel 1923:331). The rule for the appearance of pot and kat in Doric and NW Greek was first discovered by Ahrens in the middle of the last century: it states that the apocopated forms occur only before dentals. Ahrens' rule is undoubtedly correct and has been accepted for more than 100 years. Yet this simple formulation obscures the fact that there are two main environments where apocope occurs in these dialects: in compounds of preverb and verb, and before the definite article. Apocopated kat and pot do not seem to occur before nouns beginning with dentals (I have not been able to find any examples among those listed by Bechtel (1921, 1923), nor in inscriptions 48-120 in Buck 1955), so that for example in Cretan katò (< kat + to) arkhaícn 'according to the principal' contrasts with katà thusían 'according to the sacrifice'. The limitation of productive apocope to the position before the article has a parallel in the late Thessalian apocope of epì apò and hupò in the same environment.

⁸Schwyzler (1953:259) too has doubts about the etymological justification of the final vowels in these words and hence about the reality of apocope in these words. However, there can be no real question about this point. Otherwise, Schwyzler follows Kretschmer in assuming that a partial dissimilatory 'Silbenverlust' is responsible for the loss of the final vowels of the preposition/preverbs (1953:265).

⁹Arcadian shows the same general conditions for apocope as does Aeolic. Is it possible to infer from this fact that Arcadian too has recessive accentuation in all word classes?

¹⁰Kaisse 1975 tries to establish a correlation between the extent to which a dialect tolerates geminate clusters and the extent to which apocope operates. There are two problems here. The first is that double consonants are not consistently written in dialect inscriptions, so that it is unclear whether a sequence like Arcadian petoĩs (< peda + toĩs) represents a phonetic single or double consonant. The latter interpretation is probably correct. Secondly, a dialect like Attic freely tolerates geminate clusters provided that there is either a word or a morpheme boundary between the two elements. And, of course, Ionic does not usually simplify inherited geminate clusters.

¹¹Doric accentuation is in general more conservative than Attic-Ionic accentuation, but in Indo-European a verb form corresponding to elábon would either have been accented on the final syllable or on the augment.

¹²The final vowel of the prefix is the leftmost limit for accent placement, even in such forms as apódos where etymologically one would expect *ápodos. Kuryłowicz (1958:153, 1968:100) views this accentuation as a morphological innovation in Greek, based on the merger of the accented verbal prefixes with the unaccented.

¹³In the majority of the West Greek dialects kat and pot do not occur before nouns (see Note 6); only an and par (and per) may be found in this environment.

¹⁴inter is disyllabic because of the regular Latin treatment of -CVR. The loss of final vowels in Latin seems to depend on word class.

CHAPTER VII

CONCLUSION

This dissertation has examined the operation of word order change in selected older Indo-European languages. The changes described have come about through the exploitation of marked word order patterns. When these marked patterns become 'mechanized', hence losing their expressive value, and when different changes result in overlapping or ambiguous structures, then reanalysis as a different word order type becomes possible. In all cases, Hittite makes much less use of these marked order patterns than do the other Indo-European languages and hence has a more clear object-verb structure. The directionality of change, one may conclude, is from a Hittite-like situation to the situations found in the other languages. This proves quite certainly that Proto-Indo-European had a surface syntactic structure much like that of Hittite.

The most important factor in word order change in the Indo-European languages is verb fronting. For this marked pattern, not only absolute initial position, but also gedeckte Anfangsstellung 'modified initial placement' must be considered. Since Indo-European sentences often begin with particles, pronouns, and preverbs, these constitute a leftmost boundary for verb movement. Verb-initial sentences in Hittite are rare and always emphatic or

contrastive, whereas in the other Indo-European languages, even the closely related Anatolian languages, the range of categories for verb initial sentences is broader and their occurrence more common. Another important factor in word order change is postverbal amplification. This process is crucial for word order change, however, only when infinitives, not nominal subjects or objects, are postposed; on semantic grounds, the postposed nominals may allow interpretation as afterthoughts, whereas the postposed infinitives do not. The latter are usually necessary for the coherence of the sentence. In Hittite, postverbal amplification of any kind occurs under extremely limited conditions, whereas in the other Indo-European languages, it is much more common. Postposed infinitives are allowed in Avestan and Sanskrit and a 90 percent rule for Homeric Greek.

The changes described in this study take place first in more complex structures. 'Complexity' here does not mean, as generative grammarians have defined it, the topmost sentence, with change beginning there and moving to lower sentences; it refers to such factors as the amount of modification, the length of an object, or its having subject or object (i.e., its being an infinitive). Thus sequences of SXOV or NAp or ANp are more complex, and the changed orders SOVX and NpA or ApN less so. These methods of 'framing' verbs or prepositions by their objects have often been thought to be poetic, but they actually originate in linguistic change. This distribution of elements occurs because elements of only a certain length can be tolerated before the verb or the postposition. The

altered order, however, represents an attempt to maintain at least a minimal object-verb or nominal-postposition order; it may, though, be considered a transitional word order and hence subject to reanalysis at any time.

A crucial motivation for reanalysis of the word order patterns studied here is ambiguity. It is often difficult to distinguish between sentences with verbs in initial or modified initial position and those with postverbal material. Since there is considerable overlap between the structures which result from these two different processes, their significance as marked patterns is neutralized. There is great possibility for reinterpretation of these sequences as some form of VO rather than OV order.

One may establish a relative chronology for these types of changes in word order. The shift from postposition to preposition is one of the earliest changes. It is virtually complete when the shift from object-verb to verb-object order is only in its initial stages. In Greek at least, the shift of adpositions precedes the shift of infinitives. The consistent postposing of infinitives occurs before that of single word objects. Single word nominal objects, it seems, are among the last sentence elements to be affected by these changes.

The foregoing observations about word order change have certain implications. First, they suggest that word order change operates on surface structures to produce new surface structures. It is not a matter of deep structures. Second, they seem to be limited to the Indo-European languages; in different language families, word order

change will undoubtedly work in different ways. The line of development sketched here depends crucially upon aspects of the structure of early Indo-European languages, for example, enclitics in second position in the sentence or verb final order. This dissertation makes no statement about universals of word order change.

Third, the conclusions of this study suggest that the use of language typology as a predictor of syntactic change has little worth. Typologists such as Lehmann have been centrally concerned with the shift of objects around their verbs, yet this study provides evidence that these are almost the last elements to shift. Furthermore, many of the changes discussed here are not exclusively a matter of the shift from OV to VO order, the focus of typologists. They result from an increase in the complexity of sentences. A great deal of the variation in word order, for example in Greek, results from the length of the sentences. If a sentence is short and has only a subject, an object, and a verb, then SOV order is very likely, but if it has other elements, they are likely to appear after the verb (SOVX). So-called 'free order' is usually associated with freely occurring infinitive, participial, and absolute constructions. Therefore, it is not surprising that Hittite, which is most consistently SOV, has the most limited occurrence of participles and no absolute constructions. Speaking impressionistically, one may say that Sanskrit with less clear SOV order has more participles and absolute constructions, while Greek has 'free word order' and a plethora of both constructions.

Only the operation of word order change within the clause has been examined here, but it is safe to assume that word order changes in an analogous fashion between clauses, and these interclause changes are particularly important to the development of more complex sentence structures. Some kinds of marked order described here, particularly verb-initial placement, are conditioned by a verb's relation to the preceding clause, so any change in the preceding clause must affect this type of order. The formation of participial or absolute constructions out of entire clauses, for example, has two results important for word order change: it yields apparent verb medial order (cf. modified initial order or postverbal amplification), with reanalysis then possible, and it helps eliminate the inherited cellular clause structure of Indo-European, thus giving longer and more complex sentences. Elsewhere (Holland and Ickler 1979) I have shown that Indo-European did not have center-embedded relative clauses, but that with the reinterpretation of relative adjectives as relative pronouns and the development of 'head' nouns, they became possible. Again, reanalysis of the word order was appropriate, and at the same time the complexity of the sentence was increased by this syntactic change. Delbrück attributed the motivating force behind word order change in Greek to the development of a 'periodic style' (1879:155). In a sense, he was correct, and his observation also holds for other Indo-European languages.

APPENDIX

WORD ORDER IN MYCENAEAN GREEK

The texts in Mycenaean Greek are inventories, lists of people and commodities, and records of transactions made for administrative purposes. There are no narrative texts, and most of the longer tablets consist of repetitions of the same simple formulas. Furthermore, the vocabulary of the tablets is severely restricted; in fact, J. Chadwick estimates that approximately 75 percent of the words that do occur are personal names (1970:100). The interpretation of the remaining 25 percent is in many cases far from certain. In spite of these limitations it is still possible to gain some idea of the syntactic functioning of the language. I have used the 300 texts printed and interpreted in Ventris and Chadwick's Documents in Mycenaean Greek (1956, 2nd ed. 1973) as a basic corpus. These texts are the best understood Mycenaean documents, and for the most part the interpretations offered by Ventris and Chadwick represent a consensus of scholarly opinion. I have also checked the transcriptions of the tablets in this volume against the later editions of the Pylos texts by Bennett and Olivier (1973), the Knossos texts by Chadwick, Killen, and Olivier (1971) and the Mycenaean texts by Bennett (1956) and Chadwick (1963). The Theban tablets have been ignored here.

Ventris and Chadwick devote one page to syntax, with one paragraph of this on word order. They maintain that although other sequences are found 'the order: subject, verb, object is regular' (1973:90). They say very little about the other possibilities except to note that VSO order is especially frequent after the introductory particle o- (jo-). They make no statement at all about SOV order in the tablets. The traditional belief in 'free word order' for languages with a well developed inflectional system is implicit in their remark that 'word order would seem to be of importance where the inflexions are so largely hidden by the script' (1973:90). However, one may doubt that the word order of the tablets would be any different even if the graphic system fit the language better, since the entries have a basic topic-comment structure. And, evidently by scribal convention, the ideograms representing the entities listed are placed at the end of the entries, although it is difficult to tell what role these play in the syntax of the entries. The discussion of word order in Villborg (1960:137-9) is rather more complete, although this authority maintains that 'in complete sentences the usual order is subject-verb-object'. Villborg notes that 'inverted word order . . . seems to be characteristic' for sentences which begin with o- jo-. Again, no statement at all is made about SOV order.

The texts in Mycenaean are remarkably homogeneous, although they come from different periods and places. This fact has been used by Sterling Dow to support the notion of a 'special literacy' for the scribes. As Ventris and Chadwick put it:

The almost identical sign-forms, spelling, phraseology and tablet shape and arrangement shown at Knossos, Pylos and Mycenae (despite considerable differences in date and place) may themselves show that writing was the preserve of specialists trained in a rigidly conservative scribal school (1973:110).

Moreover, it appears that the tablets which have been preserved were in each instance written shortly before the destruction of the site they were found on (Bennett 1956:105ff.). Thus the different word orders found in the Mycenaean texts cannot be ascribed to historical change during the periods from which we have texts or to different dialect areas within a Mycenaean speech community. Furthermore, any innovations in word order presented by the Mycenaean documents will have to antedate the earliest texts, will have to have taken place before 1400 B.C. at the latest.

The following general facts emerge from an examination of the texts: (1) fewer than half of the tablets contain verbal forms of any kind, finite or nonfinite; (2) of the tablets with verbal forms approximately one third has forms of 'be' and other intransitive verbs, another third has participial forms, while the remaining third has finite transitive verbs; (3) forms of 'have' and 'give' account for the overwhelming majority of attestations of transitive verbs; the first is used in the standard formulas of the Pylos land tenure tablets, while the second is found in the assessment formulas. All three of the major word order sequences SVO, VSO and SOV occur, although not under the same conditions. The sequences VOS and OVS are

also attested, but they have special explanations which will be presented below.

In the following pages I give examples of each of the principal word order types. In citing the texts I give first the number in Ventris and Chadwick (1973) and then the catalogue number assigned by Bennett. The translations are also taken from Ventris and Chadwick. Following their convention, underlining (= italics) is used to mark the words whose interpretation is particularly doubtful. I have freely abbreviated repetitious tablets and those with long series of names of people or commodities.

Examples of sentences with SVOX order are:

- 1) ru-ko-ru e-ke o-na-to 'ra-wa-ke-si-jo' pa-ro mo-ro-qo-
 nom. 3sg.pres. acc. gen. prep. gen.
 Lugros has lease? of leader from Molog^u-

ro-jo ko-to-na po-me-no GRA T 1 (109=PY Ea 782)
 dat. gen.
 ros plot shepherd

'Lugros, servant of the commander, holds a lease from the plot of Molog^uros the shepherd: 12 l. wheat.'

- 2) ke-re-te-u e-ke o-na-to pa-ro mo-ro-qo-ro po-me-ne
 nom. 3sg.pres. acc. prep. dat. gen.
 Kretheus has lease? from Molog^uros shepherd

GRA 2 (110=PY Ea 800)

'Kretheus holds a lease from Molog^uros the shepherd: 240 l. wheat.'

- 3) ko-do e-ke o-na-to pa-ro da-mo 'po-me' GRA T 4
 nom. 3sg.pres. acc. prep. gen. nom.
 ?Koldos has lease? from deme shepherd

(113=PY Ea 824)

'?Koldos the shepherd holds a lease from the village: 48 l. wheat.'

- 4) ki-ri-ti-jo-jo ko-pe-re-u / e-ke to-so-de pe-mo GRA 6
 gen. nom. 3sg.pres. acc.-ptc. acc.
 Krithios Kopreus has so much seed

(and 13 repetitions of the formula NN e-ke to-so-de pe-mo)

(167=PY Es 650)

'(In the month) of ?Krithios: Kopreus has (an acreage of) so much seed: 720 l. wheat . . .'

- 5) a-ke-o a-ke-re
 nom. 3sg.pres.
 Alkeos collects

me-ta-pa pa-ro ka-ra-su-no CAP^m 30 (63=PY Cc 660)
 prep. dat. acc.
 from Karasuno goats

'At Metapa: Alkeos collects thirty he-goats from Ka-ra-su-no.'

Directly comparable tablets with SOVX order are:

- 6) ma-ra₃-wa te-o-jo do-e-ra o-na-to e-ke ke-[ke-me-na
 nom. gen. nom. acc. 3sg.pres. gen.
 ?Marraiwa of god servant lease? has communal

ko-to-na pa-ro da-mo to-so pe-mo GRA] T 2 (143=PY Ep 705)
 gen. prep. dat.
 plots from village so much seed

(and 9 further occurrences of the same formula)

'?Marraiwa, servant of the god, holds the lease of a communal plot from the village: so much seed: 24 l. wheat.'

- 7) pa-ki-ja-ni-ja to-sa da-ma-te DA 40
 dat. nom.pl. nom.pl.
 Pakijanija so many acreages

to-so-de te-re-ta e-ne-e-si VIR 14
 nom.-ptc. nom. 3pl.
 so many-and tenants are there

wa-na-ta-jo-jo ko-to-na ki-ti-me-na to-so-de-pe-mo GRA 2 V 1
 gen. nom. nom.
 ?Warnataios plot private so much-and-seed

o-da-a₂ o-na-te-[re] e-ko-si wa-na-ta-jo-jo ko-to-na
 ptc. nom. 3pl.pres. gen.
 thus tenants hold

a-tu-ko e-te-do-mo wa-na-ka-te-ro o-na-to e-ke
 nom. nom. nom. acc. 3sg.pres.
 Atukhos artificer royal lease has

<to-so>-de pe-mo GRA V 1 (114=PY En 609)

so much-and seed

(The remainder of this tablet contains 9 further occurrences of the formula NN o-na-to e-ke.)

'(There are) so many acrages belonging to Pakija-P: 40,
 And there are so many fief-holders upon them: fourteen men.
 The private plot of ?Warnataios, so much seed: 242 l. wheat.
 Now this is how the tenants hold plots belonging to ?Warnataios:
 ?Atukhos the king's artificer holds a lease, so much seed: 2 l.
 wheat . . .'

Ventris and Chadwick (1973:242) suggest that the -de of to-so-de is the 'enclitic -de "and"'. They also point out the variation in position of the word o-na-te-re in its two occurrences (lines 4 and 11). In both instances it is subject of a clause that begins with the introductory sequence o-da-a₂, but in the first it precedes its verb and object, while in the second it follows both. This variation must be purely stylistic, since there is no obvious syntactic or semantic conditioning for it. These two o-da-a₂ clauses also have the word order verb-object as against the object-verb order of the o-na-to e-ke formula in this tablet. That this difference cannot be ascribed to o-da-a₂, whatever this sequence of signs represents (cf., e.g., Perpillou 1978 and Floyd 1978 [1979]), is shown by tablets PY En 74 and En 659 (115 and 116 in Ventris and Chadwick 1973) of the same

land tenure series (all written by the same scribe, Bennett and Olivier 1973:114). In the first, there are sixteen occurrences of the phrase o-na-to e-ke, two of o-da-a₂ e-ko-si ko-to-na and one of o-da-a₂ ko-to-na e-ko-si; in the second, o-da-a₂ e-ko-si ko-to-na is found twice, and o-na-to e-ke seven times, three of which are in o-da-a₂ clauses. Another tablet which has OV order is

- 8) pi-ra-jo a₃-ki-pa-ta su-ra-te du-ni-jo me-tu-ra su-ra-se
 nom. nom. nom. gen. acc. 3sg.aor.?
 Philaios goatherd seizing? of Dunios cattle? has seized

VIR [1 (30=PY Ae 264)

'Philaios the goat-herd (who is acting as ?) seizer has seized the cattle of Dunios.'

Although there is some doubt about the meaning of almost every word on this tablet, there can be little question that su-ra-se is the verb and me-tu-ra its object. Tablets PY Ae 134 and Ae 108 have examples of the same word order, but with a participle instead of a finite verb:

- 9) o-ro-me-no
 nom.
 watching
- ke-ro-wo po-me a-si-ja-ti-ja o-pi ta-ra-ma-o qe-to-ro-po-pi
 nom. nom. loc. prep. gen. dat.
 K. shepherd A. over Thalamatas cattle

VIR 1 (31=PY Ae 134)

'Ke-ro-wo the shepherd at A-si-ja-ti-ja watching over the cattle of Thalamatas.'

10) o-ro-me-[no
nom.
watching

qo-te-ro a₃-ki-pa-ta o-pi ta-ra-ma-ta-o qe-[to-ro-po-pi VIR l
nom. nom. prep. gen. dat.
Q. goatherd over Thalamatas cattle

(32=FY Ae 108)

'Qo-te-ro the goat-herd watching over the cattle of Thalamatas.'

In these two sentences the form qe-to-ro-po-pi is interpreted by Ventris and Chadwick (1973:170) as q^uetropo(d)phi, functionally equivalent to a dative plural tetráposi dependent on the preposition-preverb o-pi. These sentences are also noteworthy in that they are among the very few examples of clauses with OV order with no additional material after the verb, for in the land tenure tablets the formula o-na-to e-ke invariably has supplementary material, usually accusative or genitive phrases in apposition to, or dependent on o-na-to. I will return to this point below.

Examples of sentences with VSO order are found above all in the texts which begin with the introductory particle o- (jo- is a frequently attached variant; the length of the vowel is uncertain, and the form is usually interpreted as hōs 'thus' or ho- 'and', cf. below). Among the numerous examples I cite the following:

11) jo-do-so-si ko-re-te-re du-ma-te-qe
adv.-3pl.fut. nom. nom. -conn.
thus will give mayors? wives? -and

po-ro-ko-re-te-re-qe ka-ra-wi-po-ro-qe o-pi-su-ko-qe
nom. -conn. nom. -conn. nom. -conn.
vice-mayors? -and keybearers -and fig supervisor?-and

o-pi-ka-pe-e-we-ge ka-ko na-wi-jo pa-ta-jo-i-ge
 nom. acc. acc. dat. -conn.
 racing supervisor? bronze ship arrows -and

e-ke-si-ge a₃-ka-sa-ma (257=PY Jn 829)
 dat. -conn. acc.
 spears -and points

'Thus the mayors and their wives, and the vice-mayors and key-bearers and supervisors of figs and hoeing, will contribute bronze for ships and the points for arrows and spears . . .'

12) o-do-ke a-ko-so-ta
 adv.-3sg.aor. nom.
 there-gave A(r)xotas

tu-we-ta a-re-pa-zo-o
 dat. dat.
 Thuestas unguent-boiler

tu-we-a a-re-pa-te [[ze-so-me]]
 acc. dat.
 spices unguent

ze-so-me-no [[ko]]
 dat.
 boiling

ko-ri-a₂-da-na AROM 6 (103=PY Un 267)

coriander

'Thus A(r)xotas gave spices to Thuestas the unguent-boiler, for unguent which is to be boiled:
 coriander seed 720 l. . . .'

In this text the indirect object precedes the direct, and a dative purpose clause follows both.

13) o-di-do-si du-ru-to-mo
 ptc.-3pl.pres. nom.
 thus-give woodcutters

a-mo-te-jo-na-de e-pi-[.]-ta 50
 acc. -all. acc.
 -to saplings?

a-ko-so-ne-ge 50
 acc. -conn.
 axles -and

to-sa-de ro-u-si-jo a-ko-ro a-ko-so-ne
 acc. -conn. nom. nom. nom.
 so many-and Lousian field(s) axles

100 to-sa-de e-pi-[.]ta 100
 acc.-conn. acc.
 so many saplings

'Thus the woodcutters contribute to the chariot workshop:
 50 saplings, 50 axles.
 And the 'fields of Lousos' (contribute) so many:
 100 axles, and so many saplings: 100.'

Ventris and Chadwick (1973:350) interpret a-mo-te-jo-na-de as an allative in -de of a workshop noun in -éōn (cf. Hom. khalkéōn 'smithy') formed from the word a-mo-ta seen on the WHEEL tablets. Their explanation is formally plausible, and the word clearly functions as a directional of some sort. It is interesting to note that it precedes the accusative objects in the same manner as do the indirect objects. There are some anomalies in concord in this text, for one would expect an accusative instead of the nominative a-ko-so-ne in both occurrences, and its modifier to-sa-de in line 4 is neuter plural, not masculine.

14) o-a-po-te de-ka-sa-to a-re-i-jo / o-u-ge po-[]
 adv.-adv. 3sg.aor. nom. neg.-conn.
 thus-from there

pa-i-ti-ja pe.TELA-TE 2 mi.TELA-TE 14 (214=KN L 641)
 gen.
 Phaistos clean? cloths dirty? cloths

'Thus Areios received delivery from outside, and there are not. . .:
 From Phaistos: Two clean edged cloths, fourteen dirty edged cloths . . .'

Although this text does not have a grammatical object in the clause with the verb de-ka-sa-to, I cite it because it shows that an adverb may intervene between the introductory particle o- (jo-) and the verb. Note also that the subject a-re-i-jo still follows the verb in spite of the insertion of the adverb.

A tablet introduced by jo- which has VOS order is

15) jo-a-se-so-si si-a₂-ro
 adv.-3pl.fut. acc.
 thus-will fatten

o-pi-da-mi-jo
 nom.
 inhabitants

pi-*82 SUS / SI 3 (75=PY Cn 608)
 dat.
 Pi-*82

'How the local inhabitants will fatten fat hogs: at Pi-*82
 three hogs . . .'

But here the discrepancy is easily explained by the fact that the tablet contains the ideogram for 'pigs' and that it is the quantities of pigs which are the main concern of the scribe, not the inhabitants. It is also just possible that the word o-pi-da-mi-jo is to be interpreted as an accusative plural adjective agreeing with si-a₂-ro rather than as a nominative plural opidamiol 'inhabitants'. The former interpretation is less likely, since it would not yield a readily recognizable word, cf. Ventris and Chadwick (1973:206).

Ventris and Chadwick note that the two possible exceptions to the rule that when a clause is introduced by o- (jo-) the verb immediately follows are found in tablets KN L 64i and KN Og 0467. The former has been given above.

16) jo-a-mi-ni-so-de di-do-[si
 ptc.-acc.-ptc. 3pl.pres.
 thus-Amnisos-to they give

ku-pe-se-ro 30 me-to-re [nn (260=KN Og 0467)
 ncm. acc.
 Kupselos kilograms

'Thus they contribute [. . .] to Amnisos:
 Kupselos: 30 kg. . . .

I would like to point out that the material which intervenes between the particle and the verb is in both cases a place adverb: a-po-te (apothēn) in the former tablet and a-mi-ni-so-de (Amnisonde) in this text. Even though the latter is translated as a dative object, it has the old allative suffix -de and it functions as a directional. Moreover, the basic fact is not whether the verb immediately follows o- but rather that o- obligatorily conditions subject verb inversion, and that the addition of an adverb does not affect the inversion. It is also noteworthy that the particle o- is never found written as a separate word in the Mycenaean tablets, and it is clearly proclitic. This latter point is also made by Watkins (1963:19ff.), who maintains that o- is to be interpreted as ho, the Greek reflex of the Indo-European sentence connective *so 'and'. The usual interpretation of this particle is hō(s) 'thus', and it is connected with Attic hō-de (so Ventris and Chadwick 1973:91 and Villborg 1960:125). Watkins' criticism of the standard theory, namely that the translation 'thus' seems bizarre, and if we are to have an independent instrumental adverb of the relative (or demonstrative) stem, it is difficult to explain why it is always written with the following word as a unit (1963:19) is cogent, but if his interpretation is accepted, then

there is the difficulty of explaining why the sentence connective would be preserved only when there is a verb (or adverb and then verb) immediately following. In view of the fact that demonstrative and relative pronouns often condition subject-verb inversion in Sanskrit, Germanic, later Greek and Balto-Slavic, the word order in these tablets argues for the standard interpretation of this particle.

There are a few clauses with verb initial order which do not have an introductory o-. An example is

17) e-ke-de-mi a₂-ku-mi-jo
 3sg.pres.-ptc.-acc. ncm.
 has-and-it A.

pa-ka-a-ka-ri a-ki-ti-to (196=PY Na 926)
 dat.
 p. uncultivated

'Pa-ka-a-ka-ri^P: (?the land is) uncultivated, and A₂-ku-mi-jo holds it: six of linen.'

The phrase e-ke-de-mi is glossed as 'apparently ékhei dé min,' with a reference to the phrase da-mo-de-mi (dámos dé min) in tablet PY Ep 704.5 (Ventriss and Chadwick 1973:300). This inscription is to be read starting from the lower line, and seems to consist of two clauses, the first nominal and the second containing an anaphoric enclitic pronoun referring to the first. The parallel cited by Ventriss and Chadwick is not strictly comparable, for the enclitic pronoun in that text is the subject of an infinitive which occurs later on in the tablet:

- 18) da-mo-de-mi pa-si ko-to-na-o
 nom.-ptc.-acc. 3sg.pres. gen.
 village-but-her says plots

ke-ke-me-na-o o-na-to e-ke-e to-so pe-mo 3 T 9
 gen. acc. inf.
 common lease to have so much seed

(135+PY Ep 704.5-6)

'But the village says (s)he holds the lease of communal plots:
 so much seed: 468 l. wheat.'

What this tablet does show is that Wackernagel's Law is still operative in the language of the Mycenaean documents, and that it applies even to the enclitic subjects of embedded infinitive clauses.

Some other tablets which have subject-verb inversion are:

- 19) pa-ki-ja-si mu-jo-me-no e-pi wa-na-ka-te
 dat. ? prep. dat.
 p. for king

a-pi-e-ke o-pi-te-ke-e-u HORD 16 (97=PY Un 2)
 3sg.pres. nom.
 keeps rigger

'At Pa-ki-ja^P: . . . for the king, the rigger keeps: 1968
 l. of barley . . .'

Although the meaning and form of the word mu-jo-me-no, and the meanings of a-pi-e-ke and o-pi-te-ke-e-u are doubtful, the latter two words must be respectively verb and subject of the sentence.

- 20) e-te e-so-to a-mo-ra-ma
 adv. verb nom.
 from there rations

to-so a-mi-ni-si-jo VIR 9 (34=KN Am 601)
 nom. gen.
 so many Amnisos

'Total men of Amnisos: nine; the rations are to be from there.'

The word e-te is clearly to be interpreted as énthen, and the verbal form e-so-to can be either a full spelling of éstō 'let there be', or a 3rd plur. future éssontoi (1973:170). The latter interpretation of the verb is far more likely, but in either event a-mo-ra-ma is its subject and it follows. In both this tablet and the preceding one, the subject-verb inversion appears to have been conditioned by the fact that some element other than the subject (or a conjunction) begins the sentence, specifically an adverb or a prepositional phrase.

Ventris and Chadwick call attention to the unusual word order of the following tablet:

21) o-da-a₂ ke-ke-me-na-<o> ko-to-na-o o-na-ta e-ko-si
 adv. gen. gen. acc. 3pl.pres.
 this communal plots leases they hold

ko-to-ne-ta to-so pe-mo GRA 3 (151=PY Eb 901)
 nom. adv. acc.
 men of ktoina so much wheat

'Now this is how the "men of the ktoina" hold leases of the communal plots, so much seed: 360 - 1. wheat.'

Here the object and its adnominal genitive modifiers precede the verb, and the subject ko-to-ne-ta follows. There seems to be no obvious syntactic motivation for this strange sequence of elements.

Other features of word order in the Mycenaean tablets are somewhat easier to describe. It is generally agreed that adjectives precede their nouns (Villborg 1960:138, Ventris and Chadwick 1973:90), but this is often obscured by the fact that when items are being listed the noun naturally takes precedence. As Villborg

(1960:138) observes 'where the order is inverted it is not easy to say in which cases the noun precedes as being the rubric of the tablet.' In fact there are some adjectives which never precede their nouns, and some formulas consisting of adjective and noun in which the adjective always precedes the noun being listed. Examples of the former are provided by the following tablets:

- 22) ko-wa me]-zo-e 7 ko-wa me-wi-jo-e 10
 nom. nom. nom. nom. nom.
 girls bigger seven girls smaller ten
- ko-wo me-zo]-e 2 ko-wo me-wi-jo-e 10 (19=KN Ak 627.2-3)
 nom. nom. nom. nom.
 boys bigger two boys smaller ten
- 'seven older girls, ten younger girls, two older boys, ten younger boys'

In this tablet and in the other tablets dealing with larger and smaller children, the size adjectives me-zo-e and me-wi-jo-e always follow their nouns, cf. also

- 23) ko-wa me-zo-e 4 ko-wo me-wi-jo 1 [(18=KN Ak 611.2)
 nom. nom. nom. nom. nom. nom.
 girls bigger four boys smaller one
- 'four older girls, one younger boy'

In these examples, the special word order may be due to the fact that these adjectives are formally comparatives in -ios- (cf. Villborg 1960:98).

There are also a series of tablets which seem to prefer one or the other of the orders for adjectives and nouns. For example, the chariot catalogues from Knossos (Nos. 265-277 in Ventris and Chadwick) invariably list the chariots first and then their modifiers, while the

wheel catalogues from the same place give the adjective first and then the wheel ideogram (Nos. 278-291). The tripod and table texts seem also to have the order noun-adjective.

Dependent genitives almost invariably precede their nouns, with PY Ea 305 being an exception (cf. Villborg 1960:138).

The prepositional system is fully developed by the time of these texts, and the only traces of the older postpositions are found in the directional suffixes -then and -de which survive into the classical period. Mycenaean consistently preposes héneka 'on account of' in all of its occurrences (cf. Nos. 27, 29 and 147 in Ventris and Chadwick 1973). In the classical language héneka is optionally postpositional.

Verbs which take infinitive complements are found both to precede and to follow them. An example of the first type is provided by:

24) ka-pa-ti-ja ka-ra-wi-po-[ro pa-ki]-ja-pi e-ke-qe
 nom. ncm. dat. 3sg.pres.-ptc.
 Karpathia key-bearer at P. has-ptc.

to-so-de pe-mo ke-ke-me-no ko-to-no [] dwo
 acc.-ptc. acc. gen. gen.
 so much-ptc. seed plots common two

o-pe-ro-sa-de wo-zo-e o-wo-ze GRA (141=PY Eb 338)
 nom. -ptc. inf. neg.-3sg.pres.
 being obliged-but to work not-works

'Karpathia, the key-bearer (f.) at Pa-ki-ja-P, and she holds the confines of two (?) communal plots; but though under an obligation to perform, she does not perform: so much seed: x. l. wheat.'

Ventris and Chadwick state that wo-zo-e and o-wo-ze are both misspellings, the first for the infinitive wo-ze-e, and the second for

the negated verb o-u-wo-ze (the latter misspelling is relatively frequent). An example of the second type of word order (again with a participial form of ophelo) is found in the first line of

25) o-da-a₂ a-na-ke-e o-pe-ro-te (44=PY An 218)
 adv.-ptc. inf. nom.
 thus-ptc. bring being obliged

'thus those who are obliged to bring . . .'

(There is no object expressed in this phrase.)

In this presentation of the word order patterns found in Mycenaean I have tried to use only the best understood texts. This has led to a concentration on the land tenure tablets and to a certain amount of repetition. But the results, although limited, emerge very clearly: Mycenaean has all three of the major word order types, SOV, SVO and VSO. It is also clear that the most frequent is the SVO type, and that the SOV type is next in frequency, with the VSO type last.

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