bls Berkeley Linguistics Society

Clitics in Homeric Greek: *Less* Evidence that PIE was Head-Final
Author(s): Chris Golston
Proceedings of the Fifteenth Annual Meeting of the Berkeley Linguistics Society (1989), pp. 346-355

Please see "How to cite" in the online sidebar for full citation information.

Please contact BLS regarding any further use of this work. BLS retains copyright for both print and screen forms of the publication. BLS may be contacted via http://linguistics.berkeley.edu/bls/.

The Annual Proceedings of the Berkeley Linguistics Society is published online via eLanguage, the Linguistic Society of America's digital publishing platform.

Clitics in Homeric Greek: *less* evidence that PIE was head-final

Chris Golston
University of California, Los Angeles

Proto-Indo-European is commonly reconstructed as an SOV language with head-final VPs, NPs and PPs; this reconstruction is based on the head-final VPs, NPs and PPs claimed for many of the early daughter languages. I will try to show, following Friedrich (1975), that one of the oldest IE daughters, Homeric Greek, had no syntactic category that can properly be called a PP; that many other early IE daughters are similar to Homeric in this respect; and thus that there is little reason to reconstruct head-final PPs for the parent language. Since the alleged postpositional nature of these daughters is often taken as evidence that PIE was head-final, the claim that PIE had no PPs (head-final or otherwise) can be taken as *less* evidence that PIE was head-final.[1] If I am correct in asserting that PIE had no PPs, the literature on the purported development from postpositions to prepositions in IE (Lehmann 1974; Holland 1976; Aitchison 1979) stands in need of serious revision.[2]

The paper is organized as follows: I suggest that (1) the positioning of P with respect to NP in Homeric is not head-like, (2) the optionality of P in [P NP] sequences is not head-like and thus, (3) Ps in Homeric are not syntactic heads. I suggest that (4) the positioning and optionality of P in Homeric show that P is a *modifier* of NP; specifically, I interpret Ps in Homeric as special clitics[3] that constitute a 'phrasal morphology' following work by Zwicky (1977), Klavans (1980) and S. R. Anderson (1987). (5) To support this clitic analysis, I discuss the phonological evidence that Homeric Ps were clitics. (6) I offer a similar analysis of Mycenaean Greek, yielding a fairly unified treatment of early Greek, and discuss the transition from early to Classical Greek; I claim that Classical Greek probably did have PPs and propose an analysis of the change from early to Classical Greek. (7) I look at Holland's 1976 data from Osco-Umbrian, Latin, Vedic, and Hittite and conclude that it supports the hypothesis that PIE had no PPs.[4]

The idea that Homeric had no PPs is not new. Friedrich (1975) suggests that sequences of [P NP] in Homeric are dominated by NP rather than PP. He sees P as a 'locative auxiliary' of the noun phrase rather than the head of a PP. The positioning of P in Homeric, discussed by Holland (1976), lends support to Friedrich's analysis. Following Holland's format, I list the types of [P NP] sequences found in Homer in Table 1. Holland notes (1976:415) that "adpositions do not occur after sequences of adjective plus noun or noun plus adjective in these poems."[5] A further generalization can be made on the basis of this data, however: P can occur only as the first or second word in the noun phrase. This allows for the last two examples in Table 1 which, strictly speaking, would not be predicted from Holland's generalization.[6]

Table 1: [P NP] sequences found in Homer

pN	epì pónton		
	on sea	'on the sea'	Il.2.665
pAN	epì oínopa pónton		
	on winey sea	'on the winey sea'	Il.2.613
pNA	epì neeusì thoésin		
	on ships running	'on running ships'	Il.16.201
Np	néeas ép'		
	ships on	'on ships'	Il.2.150
NpA	néeas épi glaphurás		
	ships on hollow	'on hollow ships'	Il.16.840
ApN	thoàas epì néeas		
	fast on ships	'on fast ships'	Il.24.1
ApNA	emà pròs doómata kalà		
	my to house pretty	'to my pretty house'	Od.8.41
ApAN	phíleen es patrída gáian		
	dear in paternal land	'in my dear fatherland'	Il.16.832
ArtpN	tóon ek neeóon		
	the from ships	'from the ships'	Il.16.366
Np&N	neóon ápo kaì klisiáoon		
	ships from and tents	'from ships and tents'	Il.16.45

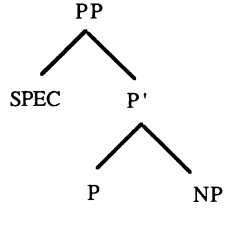
The sequences of [P NP] found in Table 2 are those unattested in Homer. Again, the generalization seems to be that P cannot occur later than second position in the noun phrase.

Table 2: [P NP] sequences not found in Homer

*ANp	*ANAp
*NAp	*AANp
*ANpA	*N&Np
*NApA	etc.

I would like to claim that the positioning of P with respect to NP found in Homer is not head-like. I have argued elsewhere (Golston 1988) that it is difficult to derive the data in Table 1 from a PP structure, whether prepositional or postpositional. To see why, consider the structure in (1):

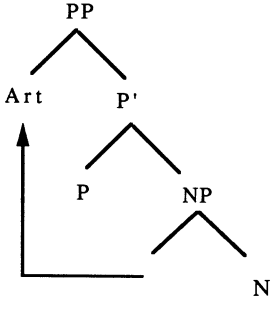
(1)



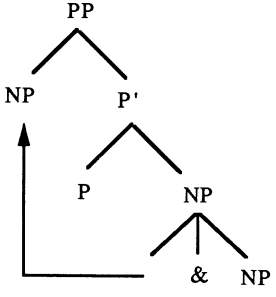
The data in Table 1 can be accounted for by postulating a position to the left of the preposition to which some element of the NP may move--we

may call this [SPEC, PP] (cf. Jackendoff 1977 and Riemsdijk 1978). The problem with such an analysis is that it predicts the *unattested* data in Table 2 as well: in order to keep the unattested data out, a stipulation along the following lines must be made: [SPEC, PP] may contain at most one word. But this I take to be an ad hoc way of getting the results required. And the analysis still has its problems: notice that the last two examples in Table 1 would require moving an *article* out of its NP (2) and moving a noun phrase out of a conjoined noun phrase (3), a violation of the Coordinate Structure Constraint (Ross 1967):

(2)

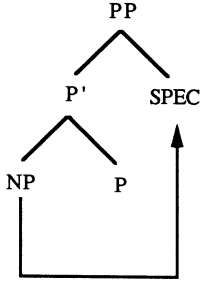


(3)



Notice that base-generating head-final PPs (4) is equally problematic: first, the only structure in Table 1 that could be base-generated is [Np]--all others would have to be derived by movement. Second, we would need an ad hoc stipulation that for NPs longer than one word either the entire NP or all but one word of the NP must move to [SPEC, PP].

(4)

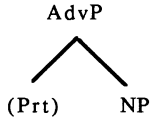


I take these problems in deriving the observed data as evidence against solutions which treat sequences of [P NP] in Homeric as PPs: the positions available to P in Homeric are not head-like positions.

The optionality of P in Homeric is also not a head-like feature and provides further evidence for Friedrich's claim that Ps in Homeric are modifiers of NPs rather than heads of PPs. Generally, one expects the head of a phrase to be a necessary part of the phrase: NPs have nouns, VPs have verbs, and PPs have adpositions. But, as is often noted,

Homeric Ps are optional. Thus Horrocks (1980) treats Homeric P as an optional 'particle' modifying an NP:

(5)



The point here is that the grammaticality (and syntactic category) of the structure is not affected by the presence or absence of the P--something we would not expect if P were the head of the phrase. Ps in Homeric are used merely to "emphasize or define more clearly certain case relations" encoded morphologically on elements of the NP (Pharr 1959:326). Smyth provides examples (metá, eks and pará are the Ps):

> metà dè mneestéersin éeipe *he spake among the suitors*...specifies the meaning with greater certainty than mneestéersin éeipe. So ho Helleénoon phóbos may mean *the fear felt by the Greeks* or *the fear caused by the Greeks*; but with eks or pará the latter meaning is stated unequivocally.

(1920:§1637). In particular, Ps are often used in Homeric to disambiguate 'composite cases' (Smyth 1920:§1279). A composite case is the result of collapsing two morphologically separate cases into one. PIE had a number of distinct cases that were merged in the Greek case-system:

PIE		Homeric
ablative, genitive	»	genitive
dative, locative, instrumental	»	dative

The Homeric Genitive may thus have either an ablative or a genitive reading and the Dative either a dative, a locative or an instrumental reading; since the case-marking is semantically somewhat ambiguous, Ps may be added to tease out the required meaning. In general, 'the prepositions define the character of the verbal action and set forth the relations of an oblique case to the predicate with greater precision than is possible for the cases without a preposition' (Smyth 1920:§1637). It is in this sense that we may understand Friedrich's term 'locative auxiliary'.

The positioning and optionality of P in Homeric suggests that it is not a head: how then may we account for this positioning and optionality? I have suggested elsewhere (Golston 1988) that Homeric Ps are best seen as phrasal affixes--phrase level counterparts to the morphological case found on words (S. R. Anderson 1987 and references therein). Their positioning may be defined in terms of the parameters of clitic placement set forth in Klavans (1980). [P NP] sequences in which P is initial may be defined as in (6); [P NP] sequences with P in second-position are captured in (7):

(6)	Domain of Cliticization:	NP
	Initial/Final:	Initial
	Before/After:	Before
(7)	Domain of Cliticization:	NP
	Initial/Final:	Initial
	Before/After	After

(6) states that a P is attached to the Initial (left) edge of a noun phrase, immediately before the first word; (7) states that a P is attached to the Initial edge of a noun phrase immediately after the first word. If we allow the third parameter to have both values (Golston 1988), (6) and (7) can be collapsed into (8). (8) yields all the data in Table 1 and none of the unattested data in Table 2 with no need of ad hoc stipulations:

(8)	Homeric P-placement	
	Domain of Cliticization:	NP
	Initial/Final:	Initial
	Before/After	Before/After

The positioning of P thus is fairly straightforwardly accounted for by treating P as a clitic.

The optionality of P is also less problematic if P is seen as a modifying affix on noun phrases. Noun phrases may appear either with morphological case alone (nominative, accusative, dative, genitive) or may appear with morphological case plus a P that modifies it--this is especially common when the morphological case is not sufficiently specific. It is worth pointing out, perhaps, that this optionality of phrasal affixation has no clear parallel in word-level affixation; nevertheless, optional phrasal affixes seem less anomalous than optional syntactic heads.

It remains to be shown, of course, that Ps in Homeric are phonological clitics--i.e., phonologically cliticize onto adjacent words.[7] Sommerstein (1973:156-8; cf. also Allen 1973:307) claims for Classical Greek that "all 'true' prepositons are lexically atonic"[8] and the same is usually assumed for Homeric. There are two essentially orthographic reasons for assuming that this was the case for Greek. First, a small class of ten words in Greek appear without any graphemic tone-marking (< ´ > = high, < ` > = low, < ^ > = falling) and are thus taken to be atonic; it is assumed that these words were pronounced as part of the following word. Three of these words are Ps, namely en 'in', eis 'into' and eks 'out of'. Second, there is the phenomenon traditionally called 'anastrophe' (the 'turning around' of the accent; Smyth 1920:§175, Pharr 1959:§326). Consider the accentuation of the P epi in (9) and (10):

(9)	NpA	néeas épi glaphurás		
		ships on hollow	'on hollow ships'	Il.16.840
(10)	ApN	thoàas epì néeas		
		fast on ships	'on fast ships'	Il.24.1

In (9) epi has a high tone on the penult; in (10) it has a low tone on the ultima--the relevant difference between (9) and (10) is whether the noun precedes or follows the P. Whatever the phonetic/phonological reality that underlies this graphemic distinction, it seems to be one that comes under the general heading of clisis; for this reason, it is usually taken as evidence that most or all Ps in Greek were phonological clitics (see Holland 1976:416 for discussion and references).

It seems reasonable, then, to analyze Homeric Ps as clitic elements of a phrasal morphology rather than as syntactic heads. Doing so allows us to treat the odd placement of P, the optionality of P and the phonological cliticization of P as related rather than as purely coincidental phenomena. An adequate analysis of Homeric Greek, however, should also be accountable to Homeric's older sister Mycenaean and to its niece Classical Greek, to which I now turn.

Holland remarks that "Mycenaean Greek, in contrast to Homer, seems to show no trace of the postpositional use of the particles (Ps)... 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" (1976:416). Mycenaean is problematic for Holland because he treats sequences of [P NP] in Homeric as archaisms: if they are archaisms in Homer, we should expect a higher percentage of them in Mycenaean since Mycenaean texts predate Homeric texts by centuries--but Mycenaean has no 'postpositons'.

How might the proposal outlined above approach this problem? Notice first that the Mycenaean facts (P precedes all elements of the NP) form a proper subset of the facts of Homeric. In fact, they are covered by the parameters given above as (6), repeated here as (11):

(11) Mycenaean P-placement

Domain of Cliticization:	NP
Initial/Final:	Initial
Before/After:	Before

What is not attested for Mycenaean is the positon defined when the third parameter is set at 'After' rather than 'Before', i.e., the settings given in (7); simply put, Mycenaean allows only one position for P whereas Homeric allows two. On this approach, the placement of P in Mycenaean is neither more nor less archaic--it is simply more restricted. This should not be surprising given the nature of the Mycenaean corpus (laundry lists) as opposed to the Homeric (epic poetry).

Holland and others (Lehmann 1974; Aitchison 1979) discuss the change from early (Mycenaean/Homeric) Greek to Classical Greek as part of a long shift from a head-final to a head-initial language.[9] Postpositions in Homeric are taken to be an archaism from PIE--as Greek became more head-initial, head-final PPs became less common and finally disappeared altogether (except for conscious postposing in Classical poetry). If PIE and early Greek had no PPs, as I have suggested,

a different scenario must be proposed for the change from early to Classical Greek.

We may begin by noting that Classical Ps differ markedly from Homeric Ps: they may *not* occur in second-positon within the noun phrase and they are *not* optional. Thus the two facts that supported a non-head clitic analysis for Homeric are lacking in Classical[10]--I conclude from this that Classical Greek had true PPs. Ps in Classical continued to be phonological clitics, but were no longer positioned by the clitic parameters in (6) - (8); instead, they were positioned by the regular syntax as heads of PPs. Thus the change from Homeric to Classical involved a reanalysis of [P NP] sequences from [P NP]$_{NP}$ to [P NP]$_{PP}$ (Golston 1988).

Table 3: The change from Homeric to Classical

HOMERIC	»	CLASSICAL
Rule A	»	Rule B
Domain of Cliticization: NP		PP —> P NP
Initial/Final: Initial		
Before/After: B/A		
Output	»	Output
NP		PP
(P) NP		P NP

How did this reanalysis come about? The percentage occurrence of second-position Ps in the Homeric corpus is only 7.85% (Haggett 1902:182); assuming that this reflects the spoken language to some degree, it could well have allowed for a syntactic reanalysis of Ps from phrasal affixes to heads of phrases. A generation of speakers that treated Ps as heads of PPs would produce no structures that would be considered ill-formed by older generations of speakers, though they would fail to produce some of the structures these older generations produced. Schematically (Table 3) the 'Homeric generation' uses rule A to place clitics--this results in sequences in which P precedes the entire NP roughly 90% of the time; the 'Classical generation', exposed only to the output of rule A, infers rule B (incorrectly). As a result, the 'Classical generation' only has output in which P precedes the entire NP; the change goes unnoticed and the reanalysis is complete.

I would now like to extend the case I have made for Ps in early Greek to PIE. Doing so involves showing that the positioning of P found in Homeric is also found in other early IE daughters and that the optionality of P found in Homeric is also found in other early IE daughters. There seems to be little dispute among Indo-Europeanists that the optionality of P was common to all of the earliest daughters. Szemerényi, for instance, states that

> [The] so-called prepositions were at first, and partly even in historical times, independent adverbs. *The IE noun, with its clear morphology, was quite capable of expressing the various relations intended by the speaker. At the most, an adverb could be added to define the meaning of the case-form more specifically.* The accusative, e.g., could originally be used to denote the goal, a use that in Latin survives with the names of cities and small islands (Romam, Cyprum) and with a few nouns (domum, rus). But the meaning could be specified: in urbem 'in the city--into (it)', ad urbem 'to the city--towards (it)', etc.

(1968:24, my emphasis; cf. also Lehmann 1974:118ff).

The comparative evidence for PIE first/second positon of P within NP can be found in Holland (1976). He notes that Oscan and Umbrian allowed P to follow either N or A, but not both (1976:419) and cites the examples in Table 4.

Table 4: Umbrian [P NP] sequences

Np	asa-ku	IIa 39
	'at the altar'	
pNA	pre-veres treplanes	Ia 2
	'before the Trebulanian gate'	
NpA	tuta-per ikuvina	Ia 5
	'for the Iguvine community'	
ApN	testru-ku peri	Ia 29
	'at the right foot'	
*ANp		
*NAp		

Latin examples of second position P are perhaps best known. Typical are cases like magna cum laude 'with great praise'. Second position, as Holland points out, is most common in early poetry, from which he cites the data in Table 5 (1976:420).

Table 5: Latin [P NP] structures

NpA	arbusta per alta	Ennius
	'through the high trees'	
NpAA	damno cum magno meo	Plautus
	'with my great injury'	
ApN	magna cum cura	
	'with great care'	
*ANp		
*NAp		

Again, P does not occur later than second position in Latin.

P *does* occur later than second position, as well as in first and second postion, in Vedic Sanskrit.[11] Holland gives the data in Table 6 (from Delbrück 1900:105-106 and Delbrück 1888:440-470):

Table 6: Vedic Sanskrit [P NP] sequences

pAN	a trtiyat purusat	TS 5,4,10,4
	'to the third generation'	
NpA	rodasi antar urvi	RV 7,12,1
	'between the two broad worlds'	
ApN	ubhe anta rodasi	RV 4,7,8
	'between the two worlds'	
ANp	imani lokan ati	SB 1,2,1,12
	'beyond these worlds'	
NAp	jatan ubhayan antar	RV 4,2,2
	'between the two races'	

Holland cites such data as evidence that PIE had postpositions. How might we account for this data using Klavans' clitic placement parameters? Klavans' parameters cannot be manipulated to define 'third-positon', so it seems as though her parameters are too strict. But this is not the case. At least for the data Holland cites, there are only 3 positions of P in Vedic, and none of them is third-positon: they are first-position, second-position and final. A structure like ApN is, of course, ambiguous between being second-position from the left and penultimate; thus, at the most we have 4 positons attested in Vedic: first- and second-position, penultimate and final--or, to state it another way, immediately before or after the first or last word in the NP. Using Klavans' parameters and assigning double-values (Golston 1988) to the second and third we get:

(12) Vedic P-placement

Domain of Cliticization:	NP
Initial/Final:	Initial/Final
Before/After:	Before/After

At first glance (12) would seem to allow innumerable clitic positions--closer inspection, however, reveals that it allows only the four required (x = word, (c) = clitic position): $[_{NP}$ (c) x (c) x x x x (c) x (c)$]_{NP}$.

Holland's Hittite data, given in Table 7, is straightforwardly accounted for on such an analysis, since it has only final Ps.

Table 7: Hittite [P NP] sequences

Np	HUR.SAG-i ser
	'on the mountain'
ANp	ANA LU.MES KUR Amurra ser
	'because of the people from Amurru'
*pN	
*pAN	
*ApN	
*NpA	

The Hittite rule of clitic-placement is given in (13):

(13) Hittite P-placement

Domain of Cliticization:	NP
Initial/Final:	Final
Before/After:	After

The position of P in early Greek, Latin, Osco-Umbrian, Vedic and Hittite, then, is compatible with a Klavans-type clitic analysis in which P is not the syntactic head of a phrase but acts as an (optional) modifier of NP. Such an analysis allows for P-placement using rules that have been motivated independently for other languages (Klavans 1980)[12]; it fits well with the observation that early IE Ps were optional (Friedrich 1975; Horrocks 1980), which is hard to account for on an analysis which treats them as heads; and it fits well with the observation that Ps were phonological clitics--a fact that must be purely coincidental on an analysis which treats them as heads. This type of analysis has the further advantage of not having to exclusively postulate either prepositions or postpositons for the parent language, in line with Friedrich's observation that "PIE was probably ambivalent, with preposing [of P] somewhat more frequent and less marked" (1977:470). Finally, an analysis which does not treat early IE Ps as heads of phrases weakens claims that PIE was head-final. If Ps were modifiers of NPs rather than heads of PPs, they are irrelevant for reconstructing the headedness of the parent language.

NOTES

(1) I do not mean to imply that PIE could not have been head-final, merely that it had no PPs that were head final (because it had no PPs). It is of course plausible that PIE had VPs of the form [....V]$_{VP}$ and NPs of the form [....N]$_{NP}$.

(2) I should say at the outset that I am deeply indebted to Gary Holland's detailed 1976 paper "The Shift from Postposition to Preposition: Evidence from Early Greek"; although I disagree with his analysis, my analysis is very much built on the data he presents there. I would also like to thank Cheryl Chan, David Cline, Ed Keenan, Donca Minkova, Aaron Shryock, Emily Sityar, and Bob Stockwell for fruitful criticism and discussion.

(3) 'Special clitics' are distinguished from simple clitics in that the latter are positoned by the regular (non-clitic) syntax whereas the former require special rules of clitic placement (Zwicky 1977; Klavans 1980; Kaisse 1985; see S. R. Anderson 1988 for discussion).

(4) I will not discuss here the interesting question of the relation of IE preverbs to IE Ps; I argue in Golston (1988) that both preverbs and Ps are elements of essentially the same phrasal morphology and should be treated by similar rules of clitic placement.

(5) In a paper presented at this year's (1989) BLS meeting, Holland cites only one exception to this rule in the *Iliad* and *Odyssey*.

(6) An interesting example for either generalization is the following:

A&pN&AN teúkhesí te ksùn páasi kaì agkhemákhois hetároisin
armor & with all & close-fighting companions
'with all his armor and close-fighting companions' Il.16.248

Here ksún occurs in what is apparently third position; but te is a clitic (note that there is no tone on it) and thus part of the preceding word--in essence, ksún is still in second positon. This seems to demand that te be positioned prior to the positioning of ksún.

(7) To claim that Ps in Homeric are positoned by rules that govern the position of clitics is essentially to claim that Ps in Homeric *are* clitics.

(8) By 'true' Sommerstein refers to one of two traditional classes of P in Greek, usually called the 'proper' prepositons. Proper Ps in Greek may also serve as pre-verbs; they are distinct from another class of Ps called 'improper prepositions'--these may not serve as pre-verbs. The distinction has no bearing on the discussion at hand. Improper prepositions are treated as special clitics in Golston (1988).

(9) These authors are aware that Classical is not a direct descendant of Mycenaean/Homeric; nevertheless, it is tempting to speculate on the syntactic changes involved *as if* it were. And it is certainly possible that Proto-Classical was like early Greek in the relevant respects.

(10) Mycenaean also lacked second-position Ps, of course; but the optional status of Ps in Mycenaean is unclear--none of the authors I consulted report on it either way. I hope to find evidence for their being optional in Mycenaean but have none at present.

(11) For interesting data on Old Indic see P. K. Anderson (1979); also Klavans' (1980) discussion of how his data fits into her approach and Golston (1988) for discussion on the similarities between Old Indic and Homeric.

(12) Klavans does not allow for the doubly-valued parameters I have used; but I take this extension of the theory as a necessary and plausible one.

Bibliography

Aitchison, J., 1979. The Order of Word Order Change. Transactions of the Philological Society.

Allen, W. S., 1973. *Accent and Rhythm.* Cambridge: Cambridge University Press.

Anderson, P. K., 1979. Word order typology and prepositions in Old Indic. *Studies in diachronic, synchronic, and typological linguistics*, ed. by Bela Brogyani, 23-34. Amsterdam: Benjamin.

Anderson, S. R., 1987. Special Clitics are the Morphology of Phrases. Paper read at UCLA.

----------, 1988. Morphological Theory. In Newmeyer, F. J., ed. *Linguistics: The Cambridge Survey.* Cambridge: Cambridge University Press.

Delbrück, B., 1888. *Altindische Syntax.* Strassburg: Karl J. Trübner.

----------, 1900. *Vergleichende Syntax der indogermanischen Sprachen.* Erster Theil. Strassburg: Karl J. Trübner.

Friedrich, P., 1975. *Proto-Indo-European Syntax.* Journal of IE Studies Monograph No 1.

----------, 1977. The devil's case: PIE as Type II. In Alphonse Juilland, ed., *Linguistic Studies offered to Joseph Greenberg.*

Golston, C., 1988. Phrasal Morphology in Homeric Greek. M.A. thesis, UCLA.

Haggett, A. S., 1902. On the uses of the prepositions in Homer. Studies in Honor of Basil L. Guildersleeve, 181-187. Baltimore: Johns Hopkins Press.

Holland, G., 1976. The shift from postposition to preposition: evidence from early Greek. Proceedings of the Second Annual Meeting of the Linguistics Society, Vol. II.

Horrocks, G. C., 1980. Verb compounds in Greek: the elimination of a transformational rule. Current Issues in Linguistic Theory, Volume 14: Papers from the 4th International Conference on Historical Linguistics.

Jackendoff, R., 1977. *X'-Syntax: A Study of Phrase Structure.* Cambridge, Mass.: The MIT Press.

Kaisse, E., 1985. *Connected Speech.* New York: Academic Press.

Klavans, J. L., 1980. *Some problems in a theory of clitics.* Dissertation, University College London. Distributed by the Indiana University Linguistics Club, Bloomington, 1982.

Lehmann, W. P., 1974. *Proto-Indo-European Syntax.* Austin: University of Texas Press.

Pharr, C., 1959. *Homeric Greek.* Norman: University of Oklahoma Press.

Riemsdijk, H. van, 1978. *A Case Study in Syntactic Markedness.* Dordrecht: Foris Publications.

Ross, J. R., 1967. Constraints on variables in syntax. Doctoral dissertation, MIT. Distributed by the Indiana University Linguistics Club, Bloomington.

Smyth, H. W., 1920. *Greek Grammar.* Cambridge: Harvard University Press.

Sommerstein, A. H., 1973. *The sound pattern of Ancient Greek.* Publication of the Philological Society, 23. Oxford: Blackwell.

Szemerényi, O., 1968. Methodology of Genetic Linguistics. In *Enzyklopädie der geisteswissenschaftlichen Arbeitsmethoden, 4. Lieferung: Methoden der Sprachwissenschaft.* München: Oldenbourg.

Zwicky, A. M., 1977. On Clitics. Bloomington: Indiana University Linguistics Club.