A Unified Theory of Adverbials Based on the "Sanctae Silviae Peregrinatioad Loca Sancta."

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A UNIFIED THEORY OF ADVERBIALS
BASED ON THE
SANCTAE SILVIAE PEREGRINATIO AD LOCA SANCTA

A Dissertation
Submitted to the Graduate Faculty of the
Louisiana State University and
Agricultural and Mechanical College
in partial fulfillment of the
requirements for the degree of
Doctor of Philosophy
in
The Interdepartmental Program in Linguistics

by
James Alexander Thorburn
B.A., The Ohio State University, 1949
M.A., The Ohio State University, 1951
December, 1977
I wish to dedicate this dissertation to

Miss Helen McNeely Sheriff,
my first Latin teacher,
who brought a dead language
back to life

and

Miss Leonore Lemmler,
who introduced me to
Cicero and Vergil,
as well as to the niceties
of English grammar
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ABSTRACT

Adverbials have received scant attention in modern linguistic research. The present study, based on a selected corpus of sentences from the Vulgar Latin Sanctae Silviae Peregrinatio ad Loca Sancta (W. Heraeus edition, 1929), attempts to develop a theory of adverbialization by which all adverbials may be derived from the same deep-structure source, an abstract "prepositional" phrase. The Vulgar Latin of the Peregrinatio presents a nice balance among a variety of adverbial constructions and lends itself perhaps especially well to the attempt to account for adverbials in a unified and systematic way.

The model developed in this study is an extension of Fowler's (1971), which in turn is derived from Chomsky's revised standard theory. To Fowler's two "deictic" elements, Det and Aux, I add Prep ("preposition") as a mechanism for adverbialization. (Fowler does not attempt to account for adverbials.) Every NP is preceded by Prep, and every adverbial (including the single-word adverb) is assumed to have a "prepositional phrase" (Prep + NP) underlying it in deep structure. Prep is rewritten as Disposition to provide a link between syntactic and semantic representation. Dispo-
sition must be further specified as [±Motion]. With a
[+Motional] verb, it must be further specified as [±Horizon-
tal]. If it is specified as [+Horizontal], it may be
further specified as [±Toward]. If it is specified as
[-Horizontal], it must be further specified as [±Up]. The
person or thing moving is the Motor, and the feature [+Motor]
is added to the associated Prep. The post-verbal Prep is
further marked [+Place], [+Goal], or [+Origin], according to
the semantic relationship involved. Prep may be further
marked for additional optional features, like Instrument,
Accompaniment, and so on. In a similar way features are
developed for [+Actional] and [+Statal] verbs. Prep, then,
is a bundle of abstract features relating the following NP
both syntactically and semantically to other items in the
string.

All adverbials are derived from the right-hand NomP of
the terminal string. A single-word adverb, e.g. *hodie*
("today"), is derived from a post-verbal NomP having an N
whose feature matrix includes the feature [+Adv]. (There is
strong historical motivation for deriving adverbs from deep-
structure nouns.) Later, realization rules convert Prep
and Det into zero morphemes and the feature set of N into
the corresponding adverb morpheme. In the instance of an
adverbial phrase a realization rule converts Prep into a
surface preposition and a case inflection. Det may be
realized as zero, as a demonstrative or other limiting
adjective, or, sporadically, as an article (this is the
The adverb clause is here viewed as a prepositional phrase with a sentence object and requires two embedded sentences. In the derivation of the adverb clause, Prep is realized as a subordinating conjunction, and Det is suppressed. The ablative absolute is conceived as an adverb clause with a zero subordinator and also requires two embedded sentences. In the derivation of the ablative absolute, the post-verbal Prep of the matrix sentence is developed with the special feature [+Circum] (circumstance), and the Aux of the right-hand embedded sentence with the special feature [+AA\_1] or [+AA\_2], according to whether an imperfective or a perfective participle is involved. These two features trigger slightly different transformations, and two corresponding realization rules develop the resultant strings of feature sets into appropriate strings of morphemes.

Although the present study is rather limited in its scope, the basic assumption that all adverbials may be systematically related by virtue of their being derivable from a single deep-structure source seems both plausible and attractive.
THE MODEL

Constituent Structure

Rules

Lexicon = Distinctive Feature Matrices
Specifying

[Strict Subcategorization Features]
Selectional Restrictions
Inherent Particularizing Semantic Features

Lexical Insertion

Rules

Substitution of Feature Sets for Lexical Category Symbols in Terminal String

Deictic Specification

Rules

Assignment of Various "Orientational" Features to Specify and Substitute for Deictic Class Symbols in Terminal String

Combining and Embedding

Transformations

Derivation of Complex Structures

Realization Rules

Substitution of Morphemes for Feature Sets in Derived String

Sound Writing
CHAPTER I: INTRODUCTION

The motivation for this study is both a special interest in adverbials and the relative scarcity of attempts in modern linguistic research to come to grips with the adverb and adverbial constructions. Significant also is a strong interest in Latin and Romance and the Vulgar Latin that mediates between them, in particular that of the author of the *Peregrinatio* in her own remarkable account of her travels to the Holy Places. Though adverb studies have been sparse, there is evidence that interest in adverbial classification and analysis in modern linguistic terms is awakening.

In early transformational grammar adverbs of various kinds are generated as optional elements in the kernel sentence. Later Chomsky (1965, pp. 218-219) remarks in a note "that many of the Manner Adverbials, like many other Adverbials, are Sentence transforms with deleted Subjects." He adds that "Place Adverbials (at least those which are VP complements) must sometimes, or perhaps always, be regarded as Sentence transforms." After these provisional observations he concludes: "Adverbials are a rich and as yet relatively unexplored system, and therefore anything we say about them must be regarded as quite tentative." George Lakoff
(1965, App. F, pp. 156-187) proposes the derivation of "many manner," locative, reason, instrumental, and frequency adverbs from an "adjective" in a deep structure involving complementation. (His adjective is a "verb" with the special feature [+Adj].)

There seems to have been fairly widespread acceptance of the principle of deriving manner adverbs from adjectives, but the proposal to derive other types of adverbs in a similar way seems to have been overlooked or forgotten. Fowler (1971, p. 28) remarks: "Transformationalists are uncertain about the status of adverbs, beyond knowing that... they are optional. Perhaps adverbs do not appear in deep structure, but are introduced by a range of transformations...." He (p. 44) tentatively accepts the treatment of manner adverbs "as surface realizations of descriptive adjectives" and adds: "Hopefully, we may in time be able to provide transformational explanations for other types of adverbial, so preserving the simplicity of the base component of the syntax."

On the other hand, Jackendoff (1972, pp. 55-58) argues for deep-structure adverbials, with the details of specification accounted for by semantic interpretation. He holds that deriving adverbs from adjectives vastly complicates the transformational machinery with little gain in simplicity of the base. Also, for some adverbs, he observes, there is no plausible adjective source. It does not make sense, he concludes, to derive some adverbs from adjectives and not all. Therefore, some other way must be found.
Perhaps the most interesting and appealing proposal to date for the derivation of adverbials is that of Chafe (1973, pp. 300-308), who suggests the possibility of deriving adverbs from what he calls "state verbs." In summarizing his views, he states: "I have tried to explore a few of the consequences of regarding surface structure adverbs as reflecting semantic elements which are state verbs. The items which, in surface structure terms, are regarded traditionally as 'modified' by adverbs have been regarded here as the patients of those state verbs. Such patients may be no more than verbs themselves, or they may be verbs to which accompanying nouns are attached. In the latter case we are accustomed to speaking of sentence adverbs." Chafe offers his proposal quite tentatively, however, and leaves the way open for a different theory.

Thus, with only more or less incidental attempts by linguists to develop a theory of adverbialization, Bach (1974, p. 106) is constrained to remark: "A major problem of English syntax is the analysis of adverbs of various sorts." In like vein in the introduction to his recent study of adverbs, Huang (1975, pp. 10-11) observes: "A number of linguists working within the framework of transformational grammar have contributed insights into the structure of adverbs, but a comprehensive account of the general properties of adverbs has yet to be undertaken. The authors of the UCLA grammar, a stupendous work of well over a thousand pages born of the results of concentrated inquiry over a
period of three years, decided to leave the adverb aside, for, as they indicated in the preface, the adverb is simply not well-understood.\footnote{Huang here refers to Robert P. Stockwell, Paul Schacter, and Barbara H. Partee, Integration of Transformational Theories on English Syntax, a U. S. government sponsored project at the University of California at Los Angeles, reproduced by the Clearinghouse for Federal and Scientific Information, Springfield, Va., 1968 (later published in a revised and slightly shortened form as The Major Syntactic Structures of English, Holt, Rinehart and Winston, Inc., 1973).} Huang (pp. 78-79; see also pp. 92-93) would derive some adverbs from "a higher predicate" and others from "a deep adverb." He devotes most of his effort to a classification of adverbs and an analysis of their semantic features. Confining his study to "one-word adverbs and adverbial phrases," he does not "attempt... to study adverbial subordinate clauses."

My own proposal, which I outline in the present study, is to derive all adverbials (including ablative absolutes of Latin) from nouns in deep structure, or rather from abstract prepositional phrases. My approach is an adaptation and extension of Fowler's grammatical model employing a combination of lexical and deictic features. It bears some resemblance to Fillmore's case grammar, but it differs most importantly from his approach (if I understand his theory correctly) in that the "preposition" that precedes every noun in deep structure in the model presented here never has to be erased, because it is not "realized" if it is not needed in surface structure.
The corpus which provides the basis for the present study is a group of selected sentences from the *Peregrinatio*, an extensive Vulgar Latin work (about 20,000 words), assumed to have been written by one Silvia or Egeria, possibly St. Silvia of Aquitaine. According to Muller and Taylor (1932, p. 124), "Sylvia or AEtheria (Egeria) was probably a nun of Southern France or Spain, of mediocre education and intelligence." Bechtel (1907, p. 71) calls the author "a woman of at least moderate education, and certainly of considerable influence with the dignitaries of church and state." Considering her lively interest in everything about her, her keenness of observation, and her knowledge of the details of Scripture, one would gather, Muller and Taylor notwithstanding, that she must have had a good deal of native wit. In spite of the repetitiousness of her style, her account always conveys that sense of immediacy characteristic of the well-told story.

Heraeus (1929, p. III), in his introduction to his critical text of the work, states:

Die sogenante 'Peregrinatio Silvia ad loca sancta' ist die älteste Beschreibung einer Pilgerfahrt ins heilige Land aus dem letzten Viertel des 4. Jahrhunderts, gleich bedeutsam für den Theologen und Historiker durch ihren mannigfachen Inhalt, wie für die lateinische und romanische Sprachforschung durch den stark vulgären charakter ihrer Sprache.

With Heraeus's observation of "den stark vulgären charakter ihrer Sprache" in mind, however, the reader is bound to be astonished at the high degree of faithfulness with which
Silvia does reproduce the Classical inflectional forms.

The manuscript was first published in 1887 by Gamurrini, who attributed it to Saint Silvia of Aquitaine. Others have since disputed the authorship. Gamurrini discovered the manuscript in the Monte Casino Monastery at Arezzo. It was written in a "langobardischen Schrift," according to Gamurrini, at the direction of Abbot Desiderius (Pope Victor III) in 1086-1087 (Heraeus, p. III). Gamurrini makes the date of composition between 381 and 388 (Heraeus, p. IV). Muller and Taylor (p. 124) report the date of composition as having been set between 380 and 540.

Missing from the manuscript are the title, the name of the author, a beginning portion, two pages at different places within the manuscript, and another portion at the end (Heraeus, p. III). What is preserved is divided into two main parts: Silvia's description of her journey from Jerusalem to the Holy Places and her highly detailed account of her participation in the Good Friday festivities in Jerusalem. Silvia's journey from Jerusalem to the Holy Places includes climbing Mt. Sinai, returning through the Land of Goshen, visiting Hiobs in Batania, tripping through Antioch

---

Eugenio Coseriu (1954, p. 53) writes that the ascription of the Peregrinatio to Silvia is in error and adds: "Es una obra compuesta en España entre 381 y 388 (o entre 380 y 420; según investigaciones más recientes, hacia el 418), por una monja llamada Eteria o Egeria..." Coseriu further observes: "La autora es persona de cierta cultura, por lo cual su lengua es corriente y más bien libre con respecto al latín clásico, pero no propiamente vulgar."
and Edessa to Charae in Mesopotamia, and finally going through Tarsus, Seleuchia, and Chalcedon to Constantinople.

The present study is based on the text of W. Heraeus, published in Heidelberg in 1929 under the title "Silviae vel potius Aetheriae peregrinatio ad loca sancta (Itinerarium Egeriae)."
CHAPTER II: THE BASE

In the grammatical model developed in this study, the deepest level, or the base, consists of a very simple and highly abstract phrase structure generated by five constituent structure rules and a dictionary storing all the lexical information, including strict subcategorization features, selectional restrictions, and individualizing semantic features inherent in the particular lexical items. The phrase structure and the lexicon are considered to be equal in depth, level of abstraction, and importance, so that the grammar may be assumed to have a "syntactic-semantic" deep structure, rather than syntactic on the one hand or semantic on the other. The phrase structure and the lexicon are brought together through the operation of the lexical-insertion rules, which substitute feature sets for the lexical category symbols of the terminal string. Following lexical insertion, the deictic specification rules are applied. These develop the deictic symbols into sets of "orientational" (Lyons, 1968, p. 275) features specifying the spatio-temporal and modal framework of the structure.

The phrase structure rules are as follows:
There are four underlying phrase-markers assigned by the phrase structure rules:

1. Fowler has four rules, which generate five underlying phrase-markers.
Persae auerterunt ipsam aquam.
The Persians diverted the water.

Moyses ascendit in montem.
Moses ascended onto the mountain.

Helias latuit ibi.²
Elias hid there.

Faranitae ambulant (ibi, in eo loco).
The Faranites travel (there, in that place).

Sex montes aperiebant (ibi, in eo loco).
Six mountains appeared (there, in that place).

Example:

Lapis stat fixus.
A stone stands fixed.

²Ibi ("there") may be considered a surface realization of in eo loco ("in that place").
Examples:

Petra ingens.
The rock is huge.

Ecclesia est elegans.
The church is elegant.

Illud est admirabile.
That is astonishing.

Ipse mons est petrinus.
The mountain is rocky.

It should be noted in connection with the above phrase-markers that every NP is part of an abstract prepositional phrase, which is designated as a "nominal phrase" (NomP), and that the terminal string always includes two distinct types of symbol: the lexical category, or "part of speech,"
symbol (N, V, Adj.), and what is here called the "deictic" symbol (Prep, Det, Aux). Whereas the lexical category symbols allow for the introduction of the dictionary meanings into the basic string, the deictic formatives locate a proposition in its spatio-temporal context (see Lyons, 1968, pp. 275-281) and express the various modal features of the sentence, such as tense, mood, and the like.

I have adopted Fowler's treatment of Det and Aux for the purposes of this study, but I have added the third deictic element Prep as a means of accounting for adverbialization. It should be noted that there are only three parts of speech -- noun, verb, and adjective -- in the deep structure, and that adverb, then, is not a deep-structure category. The base involves predication only; modification of whatever kind is a product of transformational operations. Adverbials of all kinds -- single-word adverbs (including predicate adverbs), adverb phrases, adverb clauses, and ablative absolutes -- are derived by a series of transformations and realization rules from NomP. Thus it is assumed that adverb, or adverbial, is a surface category only, and that every adverbial (I use the term adverbial to include adverb) is a surface realization of an underlying abstract prepositional phrase.

I assume further that ultimately single-word adverbs derive generally from nouns. Such an evolution seems especially evident in a highly inflected language like Latin. The various oblique cases -- especially accusative, dative,
and ablative (the ablative having absorbed the locative and instrumental of Old Latin and Indo-European) -- expressed a wide variety of adverbial ideas. Hale and Buck (1903, 1966, p. 61) note:

It is believed that all Adverbs are, in their ultimate origin, nothing but stereotyped Case-forms. Some of them show endings which appear as Case-endings in related languages, but have become obsolete as such in Latin. Still others, especially among Adverbs formed from Pronominal Stems, show endings which even in the parent speech were used only in Adverbs, not as real Case-endings.

Gildersleeve (1867, 1965, p. 46) similarly states: "Most adverbs are either oblique cases or mutilated forms of oblique cases of nominal or pronominal stems." He adds that the accusative and the ablative are the principal cases from which adverbs are derived. Both Hale and Buck and Gildersleeve proceed to list the various adverbial endings and to note their case origins.

Probably the most common adverb ending in Latin is -e, which is used to make adverbs from adjectives of the first and second declensions. As Hale and Buck (p. 61) note, "This ending appears on early inscriptions as -ēd, which was once an Ablative ending of o-Stems existing beside that in -ōd, but has become obsolete in Latin, except in Adverbs." Adverbs in -tim (furtim, "secretly"; Per.: singulatim,

3This has of course been reduced to -ō in Classical Latin [my note].
"singly," "one by one") go back to "the Acc. Sing. of a stem in -ti-" (p. 62). The endings of some common Latin adverbs, mostly of time and place, are obscure in their origins, but the stems to which they are attached are pronominal. Examples are hic ("here"), ibi ("there"), quondam ("once"), semper ("always"), and others (p. 63). A few adverbs, like hodie ("today") < hoc die ("on this day"), are transparently nominal in origin.\(^4\)

Thus a procedure that derives adverbs from a nominal element in the deep structure seems to have considerable motivation. The postulation of the deictic element Prep to represent the case features of the noun, as well as those attached to any preposition that might be used with it, since case and preposition are often combined in Latin, not only facilitates the derivation of single-word adverbs but also helps to correlate single-word adverbs, adverb phrases, and adverb clauses.

Adverb clauses may be viewed as prepositional phrases with sentence objects. Hutchins (1971, p. 59) notes the "close relationship between prepositions and subordinate [sic] conjunctions." It must be borne in mind that prepo-

\(^4\)English down comes from ME. doun < adune, adown < OE. adune, ofdune, from the hill < a-, of-, off, from + dune, dat. of dun, hill (WNCD). So even a flat, "primary" adverb like down may be traced back to a preposition-plus-noun stage. It is obviously related to NE. dune, as in sand dune. There is related to the demonstrative that, going back to IE. *-ta, and so apparently has a pronominal origin, like hic and ibi of Latin.
sition (Prep) as here conceived is merely an abstraction and will be developed as a bundle of features that will relate the following NP both syntactically and semantically to other items in the string. It is, in short, a "complex symbol," as are the other items in the terminal string. It may be realized in surface structure as bare case, preposition plus case, the adverbial element in a single-word adverb, subordinating conjunction, or zero [Ø] (in the instance of an ablative absolute).\(^5\)

It should be further noted in connection with the above rules and phrase-markers that the copula esse is excluded from the deep structure on the assumption that the copula does not carry meaning. It is assumed that the predication is made by the adjective or the noun phrase and that the copula functions only as a carrier of tense, etc. It is added later by transformation. It should also be noted that, although Latin sentences usually do not have an overt subject pronoun except for emphasis or contrast, a subject must be postulated for every sentence in deep structure, since an adjective following the copula exhibits agreement across the copula with an understood subject:

(Is) est bonus.  He is good.
(Ea) est bona.  She is good.

\(^5\)It would be wrong to assume a Ø realization with a nominative subject, accusative direct object, ablative of time, etc.; in such instances Prep is realized as case.
Each item in the lexicon is represented by a distinctive-feature matrix, including a lexical category designation, a list of strict subcategorization features (representing distributional restrictions), a list of more or less general semantic features (governing the collocation of lexical items in a specific syntactic structure), a list of more specific features that will unambiguously distinguish a particular lexical item from all other lexical items, and a set of phonological features which will give the particular lexical item an appropriate pronunciation and spelling. The entry for the verb bibo ("drink"), for example, looks like this:

\[
\begin{align*}
\text{bibo} & \quad [+V \\
& \quad +\text{NomP} \\
& \quad +[+\text{Concrete}] \\
& \quad +[+\text{Liquid}] \\
\text{Opt. delete}_\text{NP} & \\
& \quad +\text{Pass} \\
& \quad [+\text{Animate}]_\text{___} \\
& \quad . \\
& \quad .
\end{align*}
\]

These features specify that the word bibo is a verb and therefore can substitute for the symbol $V$ in the terminal string of the derivation; that it must be followed in the deep structure by a noun phrase which must have a concrete and, more specifically, liquid reference, but which may be
deleted by transformation from the surface structure; that it may be passivized; and that it must have as subject a word that refers to an animate creature. The dots represent additional, as yet unspecified, features. Finally, a set of non-redundant distinctive-feature matrices specify the phonological form of the word. There will be no attempt to deal with phonology, however, in this study.

The *Peregrinatio* includes the following passage:

XVI.3.  
et iusso Dei coruus ei escam portabat, et de eo torrentem aquam bibebat

and by order of God a raven would carry food to him, and he would drink from this torrent of water (lit., and from this he would drink torrent water)

Underlying the first main clause of this passage, it is assumed, is a basic structure that might be realized on the surface as the simple sentence:

Coruus portabat escam.
A raven would carry food.

The phrase structure rules as formulated above generate the basic structure of this sentence as indicated in the following derivation:

(1)  $S$  
(2)  NomP + PredP  
(3)  Prep + NP + PredP  
(4)  Prep + Det + N + PredP  
(5)  Prep + Det + N + Aux + VP

(assumed)  
(by PS1)  
(by PS2)  
(by PS3)  
(by PS4)
Lexical interpretation is the next step in the process of derivation, followed by deictic specification. Entered in the lexicon to represent the word coruus (or corvus) is the following distinctive-feature matrix:

\[
\begin{array}{c}
\text{coruus} \\
\text{+N} \\
\text{+Common} \\
\text{+Animate} \\
\text{-Human} \\
\text{+Volitant} \\
\end{array}
\]

The verb porto is entered thus:

\[
\begin{array}{c}
\text{porto} \\
\text{+V} \\
\text{+NomP} \\
\text{[-Concrete]} \\
\text{[-Portable]} \\
\text{+Pass} \\
\text{[+Animate]}
\end{array}
\]

---

6 I am assuming porto ("carry") in its basic sense as used here to imply the necessity of animate intervention but not necessarily human agency.
This is the entry for esca(m):

\[
\text{esca} \quad \begin{bmatrix}
+\text{N} \\
+\text{Common} \\
-\text{Animate} \\
+\text{Concrete} \\
+\text{Portable} \\
\end{bmatrix}
\]

The verb is selected and inserted into the string first, after which procedure the other lexical items are selected, scanned for any collocational incompatibility with the verb, and, if all their features are found to be compatible with those of the verb, inserted in their turn into the string.\(^7\) Lexical insertion is accomplished by means of a rule that substitutes the feature set of the particular lexeme chosen for the appropriate lexical class symbol of the terminal string of the derivation. Such a rule takes roughly the following form:

\[
X + \text{Lexical Category Symbol} + Y \Rightarrow \\
X + \text{Lexical Feature Set} + Y
\]

where \(Y\) may be Null.

There seems to be no way to set up such a rule so that it will have general applicability. To provide a mechanism

\(^7\) Fowler selects the subject \(N\) first and makes the selection of the verb depend on the features of the noun.
for blocking the collocation of lexemes with incompatible features, the grammar includes an indefinite number of lexical-insertion rules, each of which incorporates the relevant features of the particular lexeme to be inserted into the string and stores them for future reference as the string is developed. The rule to insert the selected verb port- into the terminal string of the derivation under consideration is this:\(^8\)

\[
\text{Prep + Det + N + Aux + V + Prep + Det + N} \quad \left\{ \begin{array}{c}
+V \\
+\_\_\_\_\_\text{NomP} \\
+_\_\_\_[+\text{Concrete}] \\
+_\_\_\_[+\text{Portable}] \\
+\text{Pass} \\
+ [+\text{Animate}\_] \\
\vdots \\
\end{array} \right. \\
\right\} \quad \Rightarrow \\
/\text{port-}/
\]

\[
\text{Prep + Det + N + Aux +} \quad \left\{ \begin{array}{c}
+V \\
+\_\_\_[+\text{Concrete}] \\
+_\_\_\_[+\text{Portable}] \\
+\text{Pass} \\
+ [+\text{Animate}\_] \\
\vdots \\
\end{array} \right. \\
\right\} \quad + \text{Prep + Det + N} \\
/\text{port-}/
\]

\(^8\)I am following Fowler on the form of the lexical-insertion rules. The lexical-insertion rules must be relatively specific, but it seems likely that any particular
The feature [+NomP] has been discarded because it has already performed its function.

Now the feature set of the noun to be collocated as subject with the verb port- (in this instance coru-) is scanned to be sure that all its features are compatible with those of port-, and that the collocation of its features with those of port- will not violate any of the syntactic or semantic restrictions on this particular verb. The feature [+Pass] (= passivizable) indicates that this verb may undergo the passive transformation. The rule to insert the noun coru- into the string takes the following form:

\[
\text{Prep + Det + N + Aux + } \left[ \begin{array}{c}
+N \\
+\text{Common} \\
+\text{Animate} \\
-\text{Human} \\
+\text{Volitant} \\
\vdots \\
/\text{coru-}/
\end{array} \right] \left[ \begin{array}{c}
+V \\
+\text{[+Concrete]} \\
+\text{[+Portable]} \\
+\text{Pass} \\
+\text{[+Animate]} \\
\vdots \\
/\text{port-}/
\end{array} \right] \right] + \text{Prep + Det + N}
\]

The lexical-insertion rule will cover a number of particular lexemes -- that is, a class of lexemes varying in number from perhaps just a few to a great many. It would perhaps be theoretically possible to formulate and list all the necessary lexical-insertion rules for a particular language but practically unfeasible. Basic English might provide a good limited lexical system to start with.
Now the object noun *esca-* is similarly inserted into the string:

\[
\text{Prep + Det + } \begin{bmatrix} +N \\ +\text{Com} \\ +\text{Anim} \\ -\text{Hum} \\ +\text{Vol} \\ \vdots \end{bmatrix} + \text{Aux + } \begin{bmatrix} +V \\ +\_\_\_[\text{Concrete}] \\ +\_\_\_[\text{+Portable}] \\ +\text{Pass} \\ +[+\text{Anim}]_\_ \\ \vdots \end{bmatrix} + \text{Prep + Det + N} \\
/\text{coru-}/ + /\text{port-}/
\]

\[
\text{Prep + Det + } \begin{bmatrix} +N \\ +\text{Com} \\ +\text{Anim} \\ -\text{Hum} \\ +\text{Vol} \\ \vdots \end{bmatrix} + \text{Aux + } \begin{bmatrix} +V \\ +\_\_\_[\text{Concrete}] \\ +\_\_\_[\text{+Portable}] \\ +\text{Pass} \\ +[+\text{Anim}]_\_ \\ \vdots \end{bmatrix} + \text{Prep + Det + N} \\
/\text{coru-}/ + /\text{port-}/ + /\text{esc-}/
\]

---

\[9\text{This should be added to the word as a distinctive feature, but it is not necessary to the rule operation.}\]
After lexical insertion comes deictic specification. Deictic information includes such circumstantial variables as definiteness or indefiniteness, tense, mood, and the like. In earlier generative-transformational theory this kind of information was represented by a large number of morphemes sorted out by class and subclass and put in proper sequence. With this system, however, it is difficult to account for the difference in meaning attached to some, for example, in the following sentences:

Some students like grammar.
Some students were discovered studying grammar.

The strictly syntactic approach whereby the auxiliary is accounted for simply by the phrase structure rule

\[ \text{Aux} \rightarrow \text{tense (M)} \ (\text{have} + \text{en}) \ (\text{be} + \text{ing}) \]

does not allow for the ambiguity of a sentence like

He may go.

wherein may can mean either permission or possibility.

This kind of ambiguity may be handled interpretively through projection rules, as Jackendoff (1971) proposes. In treating modals, he distinguishes between "root" and "epistemic" meaning. Permission is the "root" meaning of may, and possibility is its "epistemic" meaning. Or it may be handled in a syntactic base by giving the base a semantic bias, as Jacobs and Rosenbaum (1971) do, and treating all
auxiliaries as main verbs in deep structure. The approach adopted for this study, an approach deriving from Fowler (1971) and making use of deixis and distinctive features,\textsuperscript{10} is similar to that of Jacobs and Rosenbaum in that it brings the semantic and syntactic components together in the deep structure.\textsuperscript{11} Ambiguities like those exhibited in the sentences above with some and may are readily and systematically accounted for through the concept of deixis and the use of distinctive features.\textsuperscript{12} The features may be partially ordered, in that some features may be dependent on others already listed. Developing Fowler's model further, as previously noted, I have added Prep as a third deictic element, to provide a mechanism for adverbialization.

There are three basic, mandatory features of Det which will attach to every noun. These are Number, Universality,
and **Person**. This basic feature specification of **Det** may be accomplished by the rule:

\[
\text{Det} \rightarrow \begin{bmatrix}
\text{Number} \\
\text{Universality} \\
\text{Person}
\end{bmatrix}
\]

This rule is applied to the first **Det** in the string after all the lexical symbols have been interpreted -- that is, the output of the last lexical-insertion rule provides the input to this rule. **Number** is expressed as \([\pm \text{Pl}]\), and two alternative obligatory transformational rules are set up, the first to be applied whenever the **N** following **Det** is marked \([+\text{Name}], [-\text{Count}], \text{or } [+\text{Adv}] \) (**Adverb**):\(^{14}\)

\[
\begin{align*}
\left[ \text{Num} \right] + & \left[ +\text{N} \right] \\
\left[ \text{Univ} \right] + & \left[ \begin{array}{c}
+\text{Name} \\
-\text{Count} \\
+\text{Adv}
\end{array} \right] \\
\left[ \text{Pers} \right] & \Rightarrow \left[ -\text{Pl} \right] \\
\left[ \text{Univ} \right] + & \left[ \begin{array}{c}
+\text{Name} \\
-\text{Count} \\
+\text{Adv}
\end{array} \right] \\
\left[ \text{Pers} \right]
\end{align*}
\]

and the second to be applied when the **N** following **Det** is marked \([+\text{Count}]\):

\[
\begin{align*}
\left[ \text{Num} \right] + & \left[ +\text{N} \right] \\
\left[ \text{Univ} \right] + & \left[ +\text{Count} \right] \\
\left[ \text{Pers} \right] & \Rightarrow \left[ +\text{Pl} \right] \\
\left[ \text{Univ} \right] + & \left[ +\text{Count} \right] \\
\left[ \text{Pers} \right]
\end{align*}
\]

\(^{13}\)Fowler has only **Number** and **Universality**; I add **Person** as a necessary ingredient of Latin and other languages in which verbs are inflected for person.

\(^{14}\)[**+Adv**] is a feature of an **N** that is to be realized as a single-word adverb in surface structure.
These rules must be applied in the order given.

The feature **Universality** is invoked to account for the difference in the degree of inclusiveness in the subject NP's of the following sentences:

(1) VI.2. *Faranitae ambulant nocte.*
    The Faranites travel by night.
    [*Faranitae is a common noun, not a name.*]

(2) VII.2. *Alia loca erant in sinistro, alia in dextro.*
    Some places were on the left, others on the right.

(3) VI.3. *Filii Israhel reuersi sunt usque ad eum locum.*
    The Children of Israel returned up to that place.
    [*Filii Israhel is a common noun.*]

(4) VI.4. *Nos reuersi sumus in Clesma.*
    We returned to Clesma.

In sentence (1) the reference is to all Faranites, about whom a general statement is made. In sentence (2) a general statement is made of all members of a subclass of items. The predications have a comprehensive application, and the determiners accompanying *Faranitae* and *loca* are marked [+Univ]. In sentence (3) the NP *filii Israhel* refers to a specific group of people involved in a specific event and so is marked [-Univ]. Sentence (4) involves a pronoun, *nos*, which is of necessity [-Univ], since it refers to specific persons and cannot be universal in its reference.

Thus, names and pronouns are marked [-Univ], because they refer to particular persons and things, but count and non-count nouns may be either [+Univ] or [-Univ]. If the N following Det is marked [+Name] or [+Pron], the following
rule applies:

\[
\begin{bmatrix}
\text{Num} \\
\text{Univ} \\
\text{Pers}
\end{bmatrix} + \begin{bmatrix}
+\text{Name} \\
\{+\text{Pron}\}
\end{bmatrix} \Rightarrow \begin{bmatrix}
\text{Num} \\
-\text{Univ} \\
\text{Pers}
\end{bmatrix} + \begin{bmatrix}
+\text{Name} \\
\{+\text{Pron}\}
\end{bmatrix}
\]

If the N is marked [±Count], a slightly different rule applies:

\[
\begin{bmatrix}
\text{Num} \\
\text{Univ} \\
\text{Pers}
\end{bmatrix} + \begin{bmatrix}
+\text{Name} \\
\pm\text{Count}
\end{bmatrix} \Rightarrow \begin{bmatrix}
\text{Num} \\
\pm\text{Univ} \\
\text{Pers}
\end{bmatrix} + \begin{bmatrix}
+\text{Name} \\
\pm\text{Count}
\end{bmatrix}
\]

If Det is developed as [-Univ], it must be further developed as either definite or indefinite.\(^{15}\) This accounts for the difference in reference of the nouns in the following sentences:

\[
\begin{align*}
\text{Vallis est ingens.} \\
\text{The valley is huge.} \\
\text{Ecclesia est ibi.} \\
\text{A church is there.} \\
\text{There is a church there.}
\end{align*}
\]

The following rule applies:

\[
\begin{bmatrix}
\text{Num} \\
-\text{Univ} \\
\text{Pers}
\end{bmatrix} + \begin{bmatrix}
+\text{Name} \\
\pm\text{Count}
\end{bmatrix} \Rightarrow \begin{bmatrix}
\text{Num} \\
\pm\text{Def} \\
\text{Pers}
\end{bmatrix} + \begin{bmatrix}
+\text{Name} \\
\pm\text{Count}
\end{bmatrix}
\]

\(^{15}\)That is, if it is developed as [-Univ] by the second rule above. It it is [-Univ] by virtue of its being [+Name] or [+Pron], it is not further developed, since it is necessarily [+Def].
All the above features and rules are obligatory, but others, which are optional, are also possible. These include, for example, the feature of Proximity. If Det is developed as [+Def], it may be additionally marked as [±Prox], to account for the difference between haec and eo, for example, in the following sentences:

Haec uallis est ingens.
This valley is huge.

Ecclesia est in eo loco.
A church is in that place.
There is a church in that place.

This feature is introduced by the optional rule:

\[
\begin{align*}
\text{Num} + \text{[+N]} & \Rightarrow \text{Num} + \text{[+N]} \\
\text{+Def [±Count]} & \Rightarrow \text{[+Def [±Count]} \\
\text{Pers} & \Rightarrow \text{[Pers [±Count
\end{align*}
\]

**Person** is expressed as [+I], [+II], or [+III], and two alternative rules apply. If N is marked [+Pron], the following rule applies:

\[
\begin{align*}
\text{Num [Pron]} & \Rightarrow \text{Num [Pron]} \\
\text{Univ [Pron]} & \Rightarrow \text{Univ [Pron]} \\
\text{Pers} & \Rightarrow \text{[Pers [+I [+II [+III]]
\end{align*}
\]

If N is marked [+Name], [+Adv], or [±Count], the alternative rule applies:
Latin, including that of the *Peregrinatio*, has three tenses (past, present, and future), two aspects (imperfective and perfective), three moods (indicative, subjunctive, and imperative), and two voices (active and passive). Verbs are marked for tense as [+Pres], [+Past], or [+Fut]; for aspect as [±Perf]; for mood as [+Indic], [+Subj], or [+Imp]; and for voice as [±Pas].

The third deictic element, *Prep*, is the cornerstone of the theory of adverbials herein proposed. It provides the link between deep structure and the various spatio-temporal conditions of the proposition involved, as well as setting out the semantic roles of the nouns in respect of the semantic implications of the verb -- roles such as actor, patient, goal, etc. The following obligatory rule assigns

---

16[±Pas] means active or passive and is attached to Aux; [+Pass] means "passivizable" and is a feature of the verb.
a semantic value to Prep:

\[ \text{Prep} \rightarrow [\text{Disposition}] \]

\textbf{Disposition} is specified as \([\pm\text{Motion}]\). With a verb expressing motion (marked \([+\text{Motional}]\)), \textbf{Disposition} is obligatorily specified as \([+\text{Motion}]\):

\[
[\text{Disp}] + X + \left[ +V \begin{array}{c}
\begin{array}{c}
+\text{Motional}
\end{array}
\end{array}\right] + [\text{Disp}] \Rightarrow
\]

\[
[+\text{Motion}] + X + \left[ +V \begin{array}{c}
\begin{array}{c}
+\text{Motional}
\end{array}
\end{array}\right] + [+\text{Motion}]
\]

The rule covers both instances of \textit{Prep} because their mutual relationships are vital in determining ultimate surface forms.

If \textbf{Disposition} is specified as \([+\text{Motion}]\), it must be further specified as \([\pm\text{Horizontal}]\):

\[
[+\text{Motion}] + X + \left[ +V \begin{array}{c}
\begin{array}{c}
+\text{Motional}
\end{array}
\end{array}\right] + [+\text{Motion}] \Rightarrow
\]

\[
[\pm\text{Horiz}] + X + \left[ +V \begin{array}{c}
\begin{array}{c}
+\text{Motional}
\end{array}
\end{array}\right] + [+\text{Motion}]
\]

If \textbf{Disposition} is specified as \([+\text{Horizontal}]\), it may be specified as \([\pm\text{Toward}]\):\(^3\)

\[
[+\text{Motion}] + X + \left[ +V \begin{array}{c}
\begin{array}{c}
+\text{Motional}
\end{array}
\end{array}\right] + [+\text{Motion}] \Rightarrow
\]

\[
[+\text{Horiz}] + X + \left[ +\text{Motional} \right] + [+\text{Horiz}]
\]

\[^3\text{The optionality of this rule allows for a sentence like "The cat ran along the fence."} \]
If Disposition is specified as [-Horizontal], it must be further specified as [+Up]:

\[
\begin{align*}
\{+Motion\} + X + \{+V\} + \{+Motion\} \Rightarrow \\
{-Horiz} + \{+Motional\} + \{-Horiz\}
\end{align*}
\]

\[
\begin{align*}
\{+Motion\} + X + \{+V\} + \{+Motion\} \\
{-Horiz} + \{+Motional\} + \{-Horiz\} \\
\{\pm Up\} + \{+Motional\} + \{\pm Up\}
\end{align*}
\]

The person or thing moving is the Motor, and the feature [+Motor] is added to the associated Prep. The post-verbal Prep is further marked [+Place], [+Goal], or [+Origin], according to the semantic relationship involved.

With a verb that does not express motion, Disposition is specified as [-Motion]:

\[
\begin{align*}
[\text{Disp}] + X + \{+V\} + [\text{Disp}] \Rightarrow \\
[\vdots]
\end{align*}
\]

\[
\begin{align*}
[-Motion] + X + \{+V\} + [-Motion] \\
[\vdots]
\end{align*}
\]

If Disposition is specified as [-Motion], it must be further specified as [+Action]:

\[
\begin{align*}
[-Motion] + X + \{+V\} + [-Motion] \Rightarrow \\
[\vdots]
\end{align*}
\]
Action is interpreted as activity in place.

With a verb of action (marked [+Actional]), the feature [+Action] must be selected. The person or thing producing the action is the **Actor**, and the associated Prep is marked [+Actor], while the person or thing acted upon is the **Patient**, and the accompanying Prep is marked [+Patient]:

\[
\begin{align*}
-\text{Motion} & \quad + \quad X \quad + \quad [+V] \quad + \quad [\pm \text{Motion}] \\
[\pm \text{Action}] & \\
\end{align*}
\]

The feature [-Action] implies stasis, and the subject of a statal verb (marked [+Statal]) is the **Stator**, and the accompanying Prep is marked [+Stator]. The post-verbal Prep is marked [+Place], [+Time], or [+Circumstance], according to the semantic relationship involved. A sentence with **Aux** only and no V follows the same pattern, with the pre-verbal Prep marked [+Stator] and the post-verbal Prep marked [+Place], [+Time], or [+Circumstance]. The following rule summarizes these relationships:

\[
\begin{align*}
-\text{Motion} & \quad + \quad X \quad + \quad \left\{ [+V \quad [\pm \text{Statal}] ] \right\} \quad + \quad [\pm \text{Motion}] \\
[\pm \text{Action}] & \quad [\pm \text{Aux}] \\
\end{align*}
\]
Prep may be marked for additional optional features, like Instrument, Accompaniment, and so on. As stated previously, either obligatory or optional features may ultimately be realized as surface preposition, case form, a combination of preposition and case form, or zero [Ø]. One should note, then, that case, unlike person or tense, is a surface phenomenon. Also, preposition in the traditional sense is a surface item. Prep as part of the deep structure is an abstraction embracing various semantic and grammatical bits that constitute variables in the grammatical system.
CHAPTER III: ADVERBIALIZATION

Adverbials in Latin include single-word adverbs, adverb phrases, adverb clauses, and ablative absolutes. It is proposed in this study to derive all adverbials from underlying abstract prepositional phrases, as explained in the preceding chapter.

Single-Word Adverbs

The single-word adverbs of the Peregrinatio fall into six semantic categories: place, time, manner, degree, intensification, and modality. The following are typical examples extracted from the Peregrinatio. In each instance I cite the surface reflexes of what is assumed to be the basic relevant structure:

(1) II.7. ego perueni ibi
I arrived there

(2) I.2. hi faciant orationem hic
[that] these offer a prayer here

1The investigation of adverbial prefixes of verbs (e.g., relinquentes iam terras Saracenor, "now leaving behind the lands of the Saracens"[VII.8.]) and similar special problems I will leave for a subsequent study. Likewise, nouns in ablative or other cases, though expressing adverbial ideas, will not be considered.
(3) XII.4. nos egressi sumus foras
we went outside

(4) XXIV.4. episcopus sedet susum
the bishop sits above

(5) XXIX.3. omnes simus parati hodie
let all be prepared today

(6) XV.5. ei redirect mature
[that] they might return early

(7) XXVII.6. presbyter praedicat assidue
the priest preaches continuously

(8) XLV.3. episcopus interrogat uicinos singulariter
the bishop asks the neighbors individually

(9) XIX.9. ei ponerent castra uix
[that] they might pitch camp with difficulty

(10) XX.5. ascites attendunt ipsum diem granditer
the ascetics observe that day fully

(11) I.1. uallis pulchra ualde
the valley was very beautiful

(12) XX.10. scriptura testatur hoc uere
Scripture attests this truly

All single-word adverbs are derived from the nominal phrase of the predicate phrase in either of two of the four possible basic sentence patterns postulated for Latin.²

These patterns are represented by phrase-markers 1 and 4 of the base:

²Sometimes the other two basic sentence patterns enter into the derivation in a secondary way.
For the structure underlying the sentence

(1) ego perueni ibi

the phrase-structure rules generate the following terminal string:

Prep + Det + N + Aux + V + Prep + Det + N

After application of the lexical insertion and the deictic specification rules (the form and operation of which are
illustrated in the preceding chapter), the sentence is represented by the following string of feature sets:

\[
\begin{align*}
+\text{Motion} & + [-\text{Pl}] + [+\text{N}] + [+\text{Pres}] + [+\text{V}] \\
+\text{Horiz} & -\text{Univ} + [+\text{Pron}] + [+\text{Perf}] + [+\text{Indic}] + [+\text{Mobile}] \\
+\text{Motor} & + + [-\text{Pass}] + [-\text{Pass}] \\
\end{align*}
\]

An agreement rule now copies number and person from the subject Det in Aux:

\[ T-\text{Num}-\text{Pers}-\text{agr}: \]

\[
X + \begin{bmatrix} \text{Num} \end{bmatrix} + \begin{bmatrix} \text{Pers} \end{bmatrix} + N + \text{Aux} + Y \Rightarrow
\]

\[
X + \begin{bmatrix} \alpha\text{Num} \end{bmatrix} + \begin{bmatrix} \beta\text{Pers} \end{bmatrix} + \begin{bmatrix} \text{Tense} \end{bmatrix} + \begin{bmatrix} \text{Tense} \end{bmatrix} + \begin{bmatrix} \text{Aspect} \end{bmatrix} + \begin{bmatrix} \text{Mood} \end{bmatrix} + \begin{bmatrix} \text{Voice} \end{bmatrix} + \begin{bmatrix} \alpha\text{Num} \end{bmatrix} + \begin{bmatrix} \beta\text{Pers} \end{bmatrix} + Y
\]

Since neither of the Det's will have segmental reflexes in the surface structure, no gender rule need apply.

Now realization rules convert feature sets into morphemes and substitute them into the string. I will formulate
only those rules that are immediately relevant to adverbialization. Realization rules are very specific, and in the complete grammar there are very many of them. However, except for the rules that realize each individual adverb lexeme (and there is a separate rule for each), only one realization rule is needed to account for all single-word adverbs. This rule states that whenever the NomP of the PredP is to be realized as a single-word adverb Prep and Det are suppressed, so that there will be no preposition, determiner, or inflection in surface structure:

\[
\text{RR-Adverb: } X + \left[ \left\{ +V \ \right\} + \text{Prep} + \text{Det} + \left[ +N \ \right] \Rightarrow \right.
\]

\[
X + \left[ \left\{ +V \ \right\} + \emptyset + \emptyset + \emptyset \right] -\emptyset
\]

After this rule operates, another realization rule substitutes the appropriate adverb morpheme for the particular feature set that has been inserted into the string from the lexicon: i.e., \textit{ibi}, \textit{hic}, \textit{foras}, etc. These rules have the following format:

\[
\left[ +N \ \right] \Rightarrow \textit{ibi}
\]

Sentences (2), (5), (8), (9), (10), (11), and (12),
which involve two basic predications, require two additional transformations before the realization rules are applied. Sentence (8) may serve to illustrate the additional steps involved:

(8) episcopus interrogat uicos singulariter

One underlying structure is generated:

```
S
```

```
Prep + Det + N + Aux + Prep + Det + N
```

The subject N is developed as id, to which the special feature [+S/Sub] (sentence-substitution) is attached:

```
Prep + Det + [+N
+Pron
::
+S/Sub]
```

The feature [+S/Sub] triggers a special complementation transformation, T-id, which embeds another S in the string:

```
T-id: X + Det + [:+S/Sub]
```

```
Prep + Prep + Det + N + Aux + V + Prep + Det + N + Aux + Prep + Det + N
```

After the terminal symbols have been developed into feature sets, another transformational rule, T-Prep-Aux-del, erases the leftmost Prep and the right-hand Aux:
T-Prep-Aux-del:

\[ \text{Prep} + S + \text{Aux} + X \implies S + X \]

\[ \text{Prep} + \text{Det} + N + \text{Aux} + V + \text{Prep} + \text{Det} + N + \text{Prep} + \text{Det} + N \]

This is, of course, in actuality a string of feature sets, which now must undergo application of the series of appropriate realization rules that will convert it into a string of morphemes.

Adverb Phrases

Most of the adverbial phrases of the *Peregrinatio* are prepositional phrases. In order not to extend this study unduly, I am arbitrarily excluding from consideration infinitive phrases and also participial phrases. The latter are rather problematical, in that, although they often express adverbial ideas, syntactically they are best considered adjectival in their construction. Since case was often reinforced in Classical Latin by the systematic use of prepositions, and since the use of prepositions was extended in post-Classical Latin, prepositional phrases are of frequent occurrence in the *Peregrinatio*. Of the prepositional phrases occurring in this Vulgar Latin work, by far the largest group expresses some kind of spatial orientation, with the next largest group expressing time. Other notions expressed in the *Peregrinatio* by adverbial prepositional phrases are manner, purpose, reason, concession, accompaniment, means,
instrument, respect, contrast, source, and reception. The following are typical examples:

(13) XXIII.3. ego noweram aliquam aput Ierusolimam
I knew someone at Jerusalem

(14) XI.2. monasteria cata mansiones
cells are at the various stopping-places

(15) II.2. lapis stat in ipso loco
a stone stands in that place

(16) II.2. filii fecerunt uitulum in ualle
the Children made the calf in the valley

(17) XIX.4. alios monachi commorati sunt per martyria
some monks lived near the graves

(18) X.5. Moyses imposuerat suas manus super eum
Moses had placed his hands upon him

(19) III.6. nos exiremus de aeclesia [sic]
[that] we might go out from the church

(20) XX.4. is ducebat nos ad illum puteum
he led us to the well

(21) II.2. Moyses ascendit in montem
Moses ascended onto the Mount

(22) III.1. nos mansimus ibi in ea nocte
we stopped there on that night

(23) X.6. Moyses benedixit filios ante suum obitum
Moses blessed the Children before his death

(24) III.4. presbyter monachus a [prima] uita
the priest has been a monk from [early] life

(25) IX.1. episcopus notus de eo tempore
the bishop was known from that time

(26) III.2. nos peruenimus cum labore
we arrived with effort
monachi non poterant occurrere in monte ad faciendam oblationem pro etate
the monks were not able to run onto the Mount to make oblation because of their age

[that] we might return with the men

Moses broke the tablets against the rock

the bishop instructs the people in the Scriptures

Jesus sent the letter to Abgar

I wished to become acquainted with the places fully

a necessity keeps a man from an intention

The derivation of adverb phrases is essentially the same as that of single-word adverbs. The same underlying structures are involved, and the same transformations apply. The only difference -- but it is an important one -- is that, in contrast with single-word adverbs, adverb phrases require that the predicate-phrase Prep of deep structure be realized as both preposition and case in surface structure. For this reason, there must be a number of realization rules, instead of only one, to generate appropriate preposition and case morphemes, according to the particular combinations of features in the relevant lexical and deictic matrices of the string at the appropriate stages in the process of derivation.
All the prepositions in the sample sentences above govern either the accusative or the ablative case. With the statal verb in sentence (13) the preposition *aput*, governing the accusative case, expresses place. The following realization rule applies:

RR-\textit{aput} + acc:

\[
X + \left[ +V \right] + [+\text{Place}] + \text{Det} + [+N] \Rightarrow \left[ +\text{Stasis} \right] \\
X + \left[ +V \right] + \text{aput} + (\text{det-ACC}) + \underline{} -\text{ACC}^3
\]

With Aux alone in (14) the preposition *cata* plus accusative case expresses place in a distributive sense (that is, "at the various stopping-places," or "at each stopping-place"), and the following realization rule applies:

RR-\textit{cata} + acc:

\[
X + [+\text{Aux}] + \left[ +\text{Place} \right] + \text{Det} + [+N] \Rightarrow \left[ +\text{Distributive} \right] \\
X + [+\text{Aux}] + \text{cata} + (\text{det-ACC}) + \underline{} -\text{ACC}
\]

With verbs of action or stasis or with Aux alone, the preposition *in* (15, 16, 22, 30) is used to express location, time, or respect and governs the ablative case. The particular combination of features required to assign these mor-

\[
3(\text{det}) = \text{optional determiner}; \text{-ACC and -ABL = accusative and ablative case morphemes.}
\]
phemases is stated in the following rule:

**RR-in + abl:**

\[
X + \begin{cases}
[+V] \\
[+Action]
\end{cases} + \begin{cases}
[+Place] \\
[+Time]
\end{cases} + \text{Det} + [+N] \Rightarrow
\begin{cases}
[+Stasis] \\
[+Aux]
\end{cases}
\]

\[
X + \begin{cases}
[+V] \\
[+Action]
\end{cases} + \text{in} + (\text{det-ABL}) + \text{---} - \text{ABL}
\begin{cases}
[+Stasis] \\
[+Aux]
\end{cases}
\]

A slightly different rule is needed to account for *in* plus accusative (21). Here a verb of motion is involved:

**RR-in + acc:**

\[
X + \begin{cases}
[+V] \\
[+Motional]
\end{cases} + [\text{Up}] + \text{Det} + [+N] \Rightarrow
\begin{cases}
[+Stasis] \\
[+Aux]
\end{cases}
\]

\[
X + \begin{cases}
[+V] \\
[+Motional]
\end{cases} + \text{in} + (\text{det-ACC}) + \text{---} - \text{ACC}
\]

Following a statal verb (17), the preposition *per* expressing proximate location and governing the accusative case is realized by the rule:

**RR-per + acc:**

\[
X + \begin{cases}
[+V] \\
[+Stasis]
\end{cases} + \begin{cases}
[+Place] \\
[+Proximity]
\end{cases} + \text{Det} + [+N] \Rightarrow
\begin{cases}
[+Stasis] \\
[+Aux]
\end{cases}
\]

\[
X + \begin{cases}
[+V] \\
[+Stasis]
\end{cases} + \text{per} + (\text{det-ACC}) + \text{---} - \text{ACC}
\]
The preposition super plus accusative combination (18) is accounted for by the following rules:

RR-super+acc:

\[
\begin{align*}
X + & \left[ +V \right. \\
& \left. +\text{Actional} \right. \\
& \left. +\text{Impositional} \right)
\end{align*}
\]

\[+V + \text{Actional} + \text{Impositional} + \left[ +\text{Place} \right. + \text{Det} + [+N] \Rightarrow +\text{super} + (\text{det-ACC}) + \text{ACC} + \left[ +\text{Place} \right. + \text{Det} + [+N] \Rightarrow \]

The surface combination of the preposition ad plus accusative (20, 27, 29, 31, 32) derives from the combination of the underlying features [+Motion] and [+Goal] or [+Action] and [+Purpose]:

RR-ad+acc1:

\[
\begin{align*}
X + & \left[ +V \right. \\
& \left. +\text{Motional} \right)
\end{align*}
\]

\[+V + \text{Motional} + \left[ +\text{Goal} \right. + \text{Det} + [+N] \Rightarrow +\text{ad} + (\text{det-ACC}) + \text{ACC} + \left[ +\text{Goal} \right. + \text{Det} + [+N] \Rightarrow \]

RR-ad+acc2:

\[
\begin{align*}
X + & \left[ +V \right. \\
& \left. +\text{Actional} \right)
\end{align*}
\]

\[+V + \text{Actional} + \left[ +\text{Purpose} \right. + \text{Det} + [+N] \Rightarrow +\text{ad} + (\text{det-ACC}) + \text{ACC} + \left[ +\text{Purpose} \right. + \text{Det} + [+N] \Rightarrow \]

It should be noted that sentence (32) involves a nonphysical, or metaphorical, goal (cf. ad infinitum, ad nauseam, etc.).
The following rules account for \textit{de} plus ablative (19, 25):

RR-\textit{de} + abl\textsubscript{1}:

\[
X + \begin{bmatrix} +V \end{bmatrix} + [-\text{Toward}] + \text{Det} + [+N] \Rightarrow \\
\begin{bmatrix} +\text{Motional} \end{bmatrix}
\]

\[
X + \begin{bmatrix} +V \end{bmatrix} + \text{de} + (\text{det-ABL}) + \ldots -\text{ABL}
\]

RR-\textit{de} + abl\textsubscript{2}:

\[
X + [+\text{Aux}] + [+\text{Time}] + \text{Det} + [+N] \Rightarrow 
\]

\[
X + [+\text{Aux}] + \text{de} + (\text{det-ABL}) + \ldots -\text{ABL}
\]

In sentence (23) \textit{ante} plus accusative is realized by the following rule:

RR-\textit{ante} + acc:

\[
X + \begin{bmatrix} +V \end{bmatrix} + \begin{bmatrix} +\text{Time} \end{bmatrix} + \text{Det} + [+N] \Rightarrow \\
\begin{bmatrix} +\text{Actional} \end{bmatrix} + [+\text{Previous}]
\]

\[
X + \begin{bmatrix} +V \end{bmatrix} + \text{ante} + (\text{det-ACC}) + \ldots -\text{ACC}
\]

\textit{Cum} plus ablative (26, 28) is accounted for by the rule:

RR-\textit{cum} + abl:

\[
X + \begin{bmatrix} +V \end{bmatrix} + \begin{bmatrix} [+\text{Manner}] \\ [+\text{Motional}] \end{bmatrix} + \text{Det} + [+N] \Rightarrow \\
\begin{bmatrix} [+\text{Accompaniment}] \end{bmatrix}
\]

\[
X + \begin{bmatrix} +V \end{bmatrix} + \text{cum} + (\text{det-ABL}) + \ldots -\text{ABL}
\]
The preposition a plus ablative (24, 33) is realized by the following rules:

RR-\(a + \text{abl}_1\):

\[
X + [+\text{Aux}] + \begin{bmatrix} +\text{Time} \\ +\text{Range} \end{bmatrix} + \text{Det} + \text{N} \Rightarrow \\
X + [+\text{Aux}] + a + (\text{det-ABL}) + \_\_\_\_\_\_\_\_\_ - \text{ABL}
\]

RR-\(a + \text{abl}_2\):

\[
X + \begin{bmatrix} +\text{V} \\ +\text{Actional} \end{bmatrix} + [+\text{Separation}] + \text{Det} + [+\text{N}] \Rightarrow \\
X + \begin{bmatrix} +\text{V} \\ +\text{Actional} \end{bmatrix} + a + (\text{det-ABL}) + \_\_\_\_\_\_\_\_\_ - \text{ABL}
\]

In sentence (27) pro plus ablative is derived by the following realization rule:

RR-\(\text{pro} + \text{abl}\):

\[
X + \begin{bmatrix} +\text{V} \\ \{+\text{Motional} \\ +\text{Actional} \} \end{bmatrix} + [+\text{Reason}] + \text{Det} + [+\text{N}] \Rightarrow \\
X + \begin{bmatrix} +\text{V} \\ \{+\text{Motional} \\ +\text{Actional} \} \end{bmatrix} + \text{pro} + (\text{det-ABL}) + \_\_\_\_\_\_\_\_\_ - \text{ABL}
\]

Adverb Clauses

The adverb clauses of the Peregrinatio express time, manner, comparison, result, purpose, reason, condition, concession, hypothesis, and modality. The following examples
are typical:

(34) II.7. tu uides illum posteaquam tu descenderis inde you see it after you (will) have descended from there

(35) XLVII.1. episcopus benedicit fideles mox episcopus facit orationem the bishop blesses the faithful as soon as the bishop offers prayer

(36) II.2 Deus locutus est Moysi cum Moyses pasceret pecora God spoke to Moses when Moses was pasturing the flocks

(37) II.7. ego cognoveram hoc antequam nos perueniremus ad montem I had known this before we arrived at the Mount

(38) II.7. ego cognoueram hoc antequam nos perueni ibi I knew it to be true after I arrived there

(39) XXV.3. ut omnes inclinent sua capita, quomodo ei stant ibi that all may bow their heads just as they stand there

(40) VI.2. Faranitae ambulant securius quam aliqui hominum ambulant secure the Faranites travel more securely than other men travel securely

(41) II.3. iter erat ita, ut nos descenderemus montem the way was such that we might descend the Mount

(42) II.1. nos habebamus traversare ipsam uallem, ut nos possimus ingredi montem we had to cross the valley, so that we might be able to enter onto the mountain

(43) IV.8. nos gustauimus nobis, quia hora erat sera we took a light meal for ourselves, because the hour was late
(44) XVI.3. ego coepi requirere, quae uallis haec esse, ut ego sum curiosa
I began to demand what valley this might be, since I am curious

(45) X.8. tu potestis uidere aquam, si tu uultis uidere aquam
you can see the water, if you wish to see the water

(46) XII.7. nos uidimus nullam columnam, cum nos uideremus locum
we saw no pillar [of salt], although we saw the place

(47) XLVII.3. episcopus loquitur grece, licet episcopus nouerit siriste
the bishop speaks in Greek, although the bishop will have known (in) Syriac (Aramaic)

(48) XII.7. illa columna stetit sexto miliario forsitan, quod aqua cooperit toturn nunc
the pillar stood at the sixth milestone perhaps, because water covers the whole now

(49) III.1. tu subis in cooleas, ut nos dicimus id
you climb in snailshells, as we say it

The derivation of adverb clauses is basically no different from that of single-word and phrasal adverbials. The basic process may be illustrated with sentence (36):

(36) Deus locutus est Moysi cum Moyses pasceret pecora

By PS rules:

\[ S \]

\[ \text{Prep + Det + N + Aux + Prep + Det + N} \]

By lexical-interpretation rules (from this point on in the derivation the order of processing is indicated by circled
numbers):

Prep + Det + \[ \begin{array}{c}
+\text{N} \\
+\text{Pron} \\
\vdots \\
+\text{S/Sub}
\end{array} \] + Aux + Prep + Det + \[ \begin{array}{c}
+\text{N} \\
+\text{Pron} \\
\vdots \\
+\text{S/Sub}
\end{array} \]

\[\text{id}\]

3

T-id:

\[X + \text{Det} + \begin{array}{c}
\vdots \\
+\text{S/Sub}
\end{array} + Y \Rightarrow\]

X + S + Y

4

By PS rules:

Prep + Prep + Det + N + Aux + V + Prep + Det + N + Aux + Prep + Det + \[ \begin{array}{c}
+\text{N} \\
+\text{Pron} \\
\vdots \\
+\text{S/Sub}
\end{array} \]

\[\text{id}\]

5

T-id:

\[X + \text{Det} + \begin{array}{c}
\vdots \\
+\text{S/Sub}
\end{array} + Y \Rightarrow\]

X + S + Y

6

By PS rules:

Prep + Prep + Det + N + Aux + V + Prep + Det + N

Prep + Det + N + Aux + V + Prep + Det + N

Prep + Det + N + Aux + V + Prep + Det + N
By lexical and deictic rules, beginning with V of the left-hand embedded sentence:

1. **Prep** + [-Motion] + [Stasis] + [Stator]
2. **Det** + [-Pl] + [-Univ] + [III]
3. **N** + [+N] + [+Name] + [+Divine] + [2d Decl] + [Masc]
4. **Aux** + [+Pres] + [-Perf] + [+Indic] + [+Pas]
5. **V** + [+V] + [Actional] + [+[Hum/Div]]
6. **Prep** + [-Motion] + [Action] + [Patient] + [Benefactor]
7. **Det** + [-Pl] + [-Univ] + [III]
8. **N** + [+Name] + [+Human] + [2d Decl] + [Masc]
9. **Aux** + [+Past] + [-Perf] + [+Indic] + [-Pas]
10. **Prep** + [-Motion] + [Stasis] + [Time] + [Simultaneous]
11. **Det** + [-Motion] + [Action] + [Actor] + [III]
12. **N** + [+Name] + [+Hum] + [2d Decl] + [Masc]
13. **Aux** + [+Past] + [-Perf] + [+Indic] + [-Pas]
14. **Prep** + [-Motion] + [Action] + [Patient] + [Benefactor]
15. **V** + [+V] + [Actional] + [+[Hum]]
16. **Det** + [-Motion] + [Action] + [Patient] + [III]
17. **N** + [+Name] + [+Count] + [+Animate] + [3d Decl] + [Neut]

18. **Aux** + [+Past] + [-Perf] + [+Subj] + [-Pas]
19. **Prep** + [-Motion] + [Action] + [Patient] + [III]
20. **Det** + [-Motion] + [Action] + [Univ] + [III]
21. **N** + [+Name] + [+Human] + [2d Decl] + [Masc]
22. **Aux** + [+Past] + [-Perf] + [+Subj] + [-Pas]
Now the superfluous Prep and Aux of the matrix sentence are erased by the T-Prep-Aux-del rule. Next the agreement transformation applies to each embedded sentence in turn, copying number and person in Aux. It is to be observed that the deletion transformation leaves the post-verbal Prep of the matrix sentence, which is followed by an expanded S. Thus the adverb clause is treated as a prepositional phrase with a sentence as object of the preposition. It is to be recalled that in the present theory both preposition and conjunction in the traditional sense are surface items, both "parts of speech" being derived from the same abstract deep-structure deictic element, Prep. The traditional conjunction, then, is treated here as just another preposition.\(^4\)

At this point the string is ready for application of the realization rules. I will formulate only those rules directly relevant to the realization of the embedded sentence as an adverb clause in surface structure. All that is directly involved is the realization of the various conjunctions from the underlying post-verbal Prep of the matrix sentence. Just how this Prep is realized depends on not only its own features but also those of various other elements in the embedded sentence.

The following rule realizes Prep in the above sentence as the conjunction cum (RR = Realization Rule, and AC = Adverb Clause):

\(^4\)Prepositions and conjunctions often share surface forms.
The conjunctions *posteaquam* and *postquam* (34, 38) are variants, with the same meaning and use,\(^5\) and are realized by the following rule:

\[
RR\text{-}post(\text{ea})quam\text{-}AC:
\]

\[
X + \begin{bmatrix}
\vdots \\
+\text{Time}
\end{bmatrix} + Y + \begin{bmatrix}
\vdots \\
+\text{Indic}
\end{bmatrix} + Z \Rightarrow
\]

\[
X + \text{post(\text{ea})quam} + Y + \begin{bmatrix}
\vdots \\
+\text{Indic}
\end{bmatrix} + Z
\]

*Antequam* (37) is realized with the following rule:

\[
RR\text{-}antequam\text{-}AC:
\]

\[
X + \begin{bmatrix}
\vdots \\
+\text{Pre}
\end{bmatrix} + Y + \begin{bmatrix}
\vdots \\
+\text{Indic}\{+\text{Subj}\}
\end{bmatrix} + Z \Rightarrow
\]

---

\(^5\) *Postquam* is more frequent in Caesar, *posteaquam* in Cicero (Hale and Buck, p. 298).

\(^6\) The use of the subjunctive here goes back to an anticipatory subjunctive, but after Cicero the sense of mood
In sentence (35) *mox*, which in Classical usage was an adverb, has here taken on the function of a conjunction\(^7\) and is developed from *Prep* with the rule:

\[
X + \text{antequam} + Y + \left[ \begin{array}{c}
+\text{Indic} \\
+\text{Subj}
\end{array} \right] + Z
\]

In sentence (39) *quomodo*, expressing manner, is realized with the rule:

\[
X + \text{mox} + Y + \left[ \begin{array}{c}
+\text{Indic}
\end{array} \right] + Z
\]

was lost, so that the subjunctive was sometimes used with an event already accomplished (Hale and Buck, pp. 295 and 303).

\(^7\)Cf. *directly* and *immediately* as conjunctions in British English.
In sentence (40) *quam*, introducing a comparison clause, is realized by the following rule:

**RR-quam-AC:**

\[
X + \begin{bmatrix} +\text{Adj} \\ +\text{Comparative} \end{bmatrix} + Y + \begin{bmatrix} \vdots \end{bmatrix} + Z \Rightarrow \\
\begin{bmatrix} +\text{Comparative} \end{bmatrix}
\]

\[
X + \begin{bmatrix} +\text{Adj} \\ +\text{Comp} \end{bmatrix} + \text{quam} + Y + \begin{bmatrix} \vdots \end{bmatrix} + Z
\]

*Quia* in sentence (43) expresses reason and is realized by the rule:

**RR-quia-AC:**

\[
X + \begin{bmatrix} \vdots \end{bmatrix} + Y + \begin{bmatrix} \vdots \end{bmatrix} + Z \Rightarrow \\
\begin{bmatrix} +\text{Reason} \end{bmatrix}
\]

\[
X + \text{quia} + Y \begin{bmatrix} \vdots \end{bmatrix} + Z
\]

In sentence (44) *ut* is used with the indicative in an explanatory clause and in (49) in a modal clause. The following rule applies:

**RR-ut+Indic-AC:**

\[
X + \begin{bmatrix} \vdots \\ +\text{Explanation} \end{bmatrix} + Y + \begin{bmatrix} \vdots \end{bmatrix} + Z \Rightarrow \\
\begin{bmatrix} +\text{Modality} \\ +\text{Indic} \end{bmatrix}
\]
\[ X + \texttt{ut} + Y + \left[ \begin{array}{c} \vdots \\ +\texttt{Indic} \end{array} \right] + Z \]

\texttt{Ut} is used with the subjunctive in sentence (41) to express result and in sentence (42) to express purpose. A single rule realizes \texttt{ut} in both constructions:

\textbf{RR-\texttt{ut}+\textbf{Subj-AC}}:

\[ X + \left[ \begin{array}{c} \vdots \\ +\texttt{Result} \end{array} \right] + Y + \left[ \begin{array}{c} \vdots \\ +\texttt{Subj} \end{array} \right] + Z \Rightarrow \]

\[ X + \texttt{ut} + Y + \left[ \begin{array}{c} \vdots \\ +\texttt{Subj} \end{array} \right] + Z \]

In sentence (45) \textit{si}, expressing condition, is realized by the rule:

\textbf{RR-\texttt{si}-\textbf{AC}}:

\[ X + \left[ \begin{array}{c} \vdots \\ +\texttt{Condition} \\ +\texttt{Real} \end{array} \right] + Y + \left[ \begin{array}{c} \vdots \\ +\texttt{Indic} \end{array} \right] + Z \Rightarrow \]

\[ X + \texttt{si} + Y + \left[ \begin{array}{c} \vdots \\ +\texttt{Indic} \end{array} \right] + Z \]

In sentences (46) and (47) \textit{cum} and \textit{licet} introduce concessive clauses respectively. The following rule realizes these conjunctions in these uses:
The ablative absolute construction in Latin may take any of three forms: (1) noun or pronoun with present imperfective participle, (2) noun or pronoun with present perfective participle, or (3) noun or pronoun with another noun or an adjective. The last possibility arises from the fact that sum, which would be called for here, has no present or perfect participial form.

The ablative absolutes of the Peregrinatio seem to be divided about equally between the first two types. The first fifty sentences contain seventeen ablative absolutes, eight
of the first type, nine of the second, and none of the third. All these constructions serve as sentence modifiers and in function are equivalent to adverb clauses. In some instances they modify subordinate clauses and in at least one instance another ablative absolute.

The ablative absolutes of the *Peregrinatio* seem to imply time more than any other notion, but frequently the implication may be that of time merging into cause. They also imply accompaniment, attendant circumstance, and other ideas. These ideas are perhaps only interpretations imposed on the Latin construction in the process of translation into English. Actually, the ablative absolute merely expresses a condition under which something happens, exists, or is true.

In the ablative absolutes of the *Peregrinatio* the preponderant order by far is that of participle followed by noun or pronoun. The following examples are typical:

(50) II.7. ego cognoueram hoc fratribus referentibus
[hoc]\(^8\)
I had known this, the brothers reporting [this]

(51) III.7. Moyses fregit tabulas populo peccante
[peccante = faciente peccatum]
Moses broke the tablets, the people committing sin

(52) XLVII.2. uoces collaudant [episcopum] episcopo narrante singula
the voices praise [the bishop], the bishop relating individual points

\(^8\)I put the items in the SVO order of deep structure.
Again, the process by which ablative absolutes are derived is basically the same as that by which other adverbials are derived. The differences in surface structure are accounted for by the postulation of a special feature [+Circum] (Circumstance) in the development of the postverbal Prep of the matrix sentence and a special feature [+AA₁] or [+AA₂] in the Aux of the right-hand embedded sentence, by two special transformations (one for the present imperfective version and the other for the present perfective), and by two special realization rules. The postverbal Prep of the matrix sentence is of course realized as a zero connective in surface structure.

The process of deriving an ablative absolute containing a present imperfective participle may be illustrated with sentence (51):

(51) Moyses fregit tabulas populus fecit peccatum

By PS rules:

```
S
```
```
Prep + Det + N + Aux + Prep + Det + N
```
By lexical rules:

\[
\begin{array}{c}
\text{Prep + Det + } [\begin{array}{c} +N \\
+\text{Pron} \\
\vdots \\
+\text{S/Sub} \end{array}] + \text{Aux + Det + } [\begin{array}{c} +N \\
+\text{Pron} \\
\vdots \\
+\text{S/Sub} \end{array}] \\
\text{id} & \text{id}
\end{array}
\]

**T-id:**

\[
\begin{array}{c}
\text{id}
\end{array}
\]

**T-id:**

\[
\begin{array}{c}
\end{array}
\]

By lexical and deictic rules (for brevity and clarity only the immediately relevant features of Prep after Aux in the matrix sentence and Aux in the right-hand embedded sentence are shown):

\[
\begin{array}{c}
\ldots + \text{Prep} + \ldots + \text{Aux} + \ldots \\
\vdots \\
[+\text{Circum}] \\
[+\text{AA}_1]
\end{array}
\]

**T-Prep-Aux-del:**

\[
\begin{array}{c}
\text{Prep + Det + N + Aux + V + Prep + Det + N} \\
+ [\begin{array}{c} +\text{Circum} \end{array}] + \text{Prep + Det + N + V + Prep + Det + N} \\
+ [\begin{array}{c} +\text{AA}_1 \end{array}]
\end{array}
\]
It should be noted that this rule erases the pre-verbal Prep from the right-hand embedded sentence, from which the ablative absolute is derived.

The ablative forms of the participle and the noun are ordered by the following rule:

RR-AA₁:

\[
X + \begin{bmatrix} +\text{Pres} \\
-\text{Perf} \\
+\text{Participle} \\
-\text{Pas} \\
+\text{Circum} \end{bmatrix} + V + Y + \ \begin{bmatrix} \vdots \\
+\text{Circum} \end{bmatrix} + \text{Det} + N \Rightarrow \\
\begin{bmatrix} +\text{AA₁} \end{bmatrix}
\]
The process of deriving the ablative absolute with present perfective participle may be illustrated with sentence (54):

(54) nos descendimus inde nos fecimus orationem

By PS rules:

Prep + Det + N + Aux + Prep + Det + N

After the lexical and deictic rules and T-id and T-Prep-Aux-del, we have the string (in abbreviated form):

Prep+Det+N+Aux+V+Prep+Det+N

\[ T-\text{AA}_2: \]

\[
X + \begin{bmatrix} +\text{Circum} \end{bmatrix} + \begin{bmatrix} \vdots \end{bmatrix} + \begin{bmatrix} +\text{AA}_2 \end{bmatrix} + \begin{bmatrix} +V \end{bmatrix} + \begin{bmatrix} \vdots \end{bmatrix} + \begin{bmatrix} \vdots \end{bmatrix} + \begin{bmatrix} +\text{Pass} \end{bmatrix} \Rightarrow \]

\[ \text{NP}_1 \]

\[ \Rightarrow \text{NP}_2 \]

The assignment of particular case morphemes is somewhat beyond the scope of this study.
The ab-phrase may be deleted by another rule:

T-ab + NP-del (optional):

\[ X + \left[ \begin{array}{c}
+\text{Pres} \\
+\text{Perf} \\
+\text{Part} \\
+\text{Pas} \\
+\text{Circum}
\end{array} \right] + \left[ \begin{array}{c}
+\text{Pass} \\
+\text{Circum}
\end{array} \right] + \text{NP}_2 + \left[ \begin{array}{c}
\cdot
\end{array} \right] + \text{NP}_1 \Rightarrow X + \text{NP} + Y \]

Now the following realization rule applies:

RR-AA$_2$:

\[ X + \left[ \begin{array}{c}
+\text{Pres} \\
+\text{Perf} \\
+\text{Part} \\
+\text{Pas} \\
+\text{Circum}
\end{array} \right] + \left[ \begin{array}{c}
+\text{Pass} \\
+\text{Circum}
\end{array} \right] + \text{NP} + Y \Rightarrow X + (\text{Ps-ABL}) + Y + (\text{Ns-ABL}) \]

where \( \text{Ps} \) = Participial Stem,
\( \text{Ns} \) = Noun Stem, and
\( -\text{ABL} \) = the appropriate ablative morpheme

and where \( \text{Ns} \not= \) an \( \text{Ns} \) of the subject or object in the surface structure of the matrix sentence
CHAPTER IV: CONCLUSION

In its approach to adverbialization, the present study adopts a simple but highly abstract deep structure for its grammatical model and suggests that it is just as plausible to derive an adverb like really -- to put the matter in crude surface terms -- from something like in reality as from the adjective real or the adverb truly from a prepositional phrase like in truth as from the adjective true. And a generative or descriptive model that makes it possible to derive all adverbials -- adverb, adverb phrase, adverb clause, ablative absolute (even sentence adverb, and the ablative absolute is a special type of sentence adverb) -- from the same basic deep-structure element, and to derive them from the same source that nouns and pronouns are derived from (NomP = Prep + Det + N), seems especially attractive.

The idea of developing "noun" as adverb seems no more far-fetched than developing "noun" as pronoun. And there is certainly historical motivation for doing so. It is perhaps no more than a controlled recapitulation of an ancient evolutionary process in grammar. One must only make the effort to stop thinking in terms of surface categories and
realize that there is not really anything such as either "noun" or "adverb" in deep structure, but only bundles of abstract features. Although the present study is rather limited in its scope, it lays the groundwork and suggests a procedure by which adverbialization may be achieved. It would be interesting and, it is to be hoped, useful to have the lines of this study extended and developed in more detail.


Taylor, Alan. 1976. "'Ergative-Based' or 'Transitive-Based'?" Foundations of Language 14: 1-17.


APPENDIX: SUMMARY OF RULES

Phrase Structure Rules

PS1.  $S \rightarrow \text{NomP} + \text{PredP}$
PS2.  $\text{NomP} \rightarrow \text{Prep} + \text{NP}$
PS3.  $\text{NP} \rightarrow \text{Det} + \text{N}$
PS4.  $\text{PredP} \rightarrow \text{Aux} + \left\{ \begin{array}{l}
\text{VP} \\
\text{Adj} \\
\text{NomP}
\end{array} \right\}$
PS5.  $\text{VP} \rightarrow \text{V} + \left\{ \begin{array}{l}
\text{NomP} \\
\text{Adj}
\end{array} \right\}$

Lexical-Insertion Rules

LI1.  $\text{NomP} + \text{Aux} + \text{V} + \text{NomP}$
\[
\begin{array}{c}
[+V] \\
[+N]
\end{array} \Rightarrow
\]
$\text{NomP} + \text{Aux} + \left[ +V \right] + \text{NomP}$

LI2.  $\text{Prep} + \text{Det} + \text{N} + \text{PredP}$
\[
\begin{array}{c}
[+N] \\
[+N]
\end{array} \Rightarrow
\]
$\text{Prep} + \text{Det} + \left[ +N \right] + \text{PredP}$

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LI3. NomP + Aux + V + Prep + Det + N

Note: LI1-3 merely show the general format and order of such rules. In actuality, the individual rules are very specific, as indicated in Chapter II.

Deictic-Specification Rules

DS1. Det $\rightarrow$ 
\[
\begin{bmatrix}
\text{Number} \\
\text{Universality} \\
\text{Person}
\end{bmatrix}
\]

DS2. 
\[
\begin{bmatrix}
\text{Num} \\
\text{Univ} \\
\text{Pers}
\end{bmatrix}
+ \begin{bmatrix}
+\text{Name} \\
-\text{Count} \\
+\text{Adv}
\end{bmatrix}
\rightarrow
\begin{bmatrix}
-\text{Pl} \\
\text{Univ} \\
\text{Pers}
\end{bmatrix}
+ \begin{bmatrix}
+\text{Name} \\
-\text{Count} \\
+\text{Adv}
\end{bmatrix}
\]

DS3. 
\[
\begin{bmatrix}
\text{Num} \\
\text{Univ} \\
\text{Pers}
\end{bmatrix}
+ \begin{bmatrix}
+\text{Name} \\
-\text{Count}
\end{bmatrix}
\rightarrow
\begin{bmatrix}
\pm\text{Pl} \\
\text{Univ} \\
\text{Pers}
\end{bmatrix}
+ \begin{bmatrix}
+\text{Name} \\
+\text{Count}
\end{bmatrix}
\]

DS4. 
\[
\begin{bmatrix}
\text{Num} \\
\text{Univ} \\
\text{Pers}
\end{bmatrix}
+ \begin{bmatrix}
+\text{Name} \\
+\text{Pron}
\end{bmatrix}
\rightarrow
\begin{bmatrix}
\text{Num} \\
-\text{Univ} \\
\text{Pers}
\end{bmatrix}
+ \begin{bmatrix}
+\text{Name} \\
+\text{Pron}
\end{bmatrix}
\]

DS5. 
\[
\begin{bmatrix}
\text{Num} \\
\text{Univ} \\
\text{Pers}
\end{bmatrix}
+ \begin{bmatrix}
\pm\text{Count}
\end{bmatrix}
\rightarrow
\begin{bmatrix}
\text{Num} \\
\pm\text{Univ} \\
\text{Pers}
\end{bmatrix}
+ \begin{bmatrix}
+\text{Name} \\
\pm\text{Count}
\end{bmatrix}
\]

DS6. 
\[
\begin{bmatrix}
\text{Num} \\
-\text{Univ} \\
\text{Pers}
\end{bmatrix}
+ \begin{bmatrix}
+\text{Name} \\
\pm\text{Count}
\end{bmatrix}
\rightarrow
\begin{bmatrix}
\text{Num} \\
\pm\text{Def} \\
\text{Pers}
\end{bmatrix}
+ \begin{bmatrix}
+\text{Name} \\
\pm\text{Count}
\end{bmatrix}
\]
DS7. (Optional)

$$\left[ \begin{array}{c} \text{Num} \\ +\text{Def} \\ \text{PERS} \end{array} \right] + \left[ \begin{array}{c} +N \\ \pm\text{Count} \end{array} \right] \Rightarrow \left[ \begin{array}{c} \text{Num} \\ +\text{Def} \\ \pm\text{Prox} \\ \text{PERS} \end{array} \right] + \left[ \begin{array}{c} +N \\ \pm\text{Count} \end{array} \right]$$

DS8. $$\left[ \begin{array}{c} \text{Num} \\ \text{UNIV} \\ \text{PERS} \end{array} \right] + \left[ \begin{array}{c} +N \\ +\text{Pron} \end{array} \right] \Rightarrow \left[ \begin{array}{c} \text{Num} \\ \text{UNIV} \\ \{+I\} \\ \{+II\} \\ \{+III\} \end{array} \right] + \left[ \begin{array}{c} +N \\ +\text{Pron} \end{array} \right]$$

DS9. $$\left[ \begin{array}{c} \text{Num} \\ \text{UNIV} \\ \text{PERS} \end{array} \right] + \left[ \begin{array}{c} +N \\ \{+\text{Name}\} \\ \{+\text{Adv}\} \\ \pm\text{Count} \end{array} \right] \Rightarrow \left[ \begin{array}{c} \text{Num} \\ \text{UNIV} \\ \{+\text{Name}\} \\ \{+\text{Adv}\} \\ \pm\text{Count} \end{array} \right] + \left[ \begin{array}{c} +N \\ \{+\text{Name}\} \\ \{+\text{Adv}\} \\ \pm\text{Count} \end{array} \right]$$

DS10. Aux \rightarrow 

$$\begin{array}{c} \text{Tense} \\ \text{Aspect} \\ \text{Mood} \\ \text{Voice} \end{array}$$

DS11. Prep \rightarrow [Disposition]

DS12. [Disp] + X + $$\left[ \begin{array}{c} +V \\ +\text{Motional} \end{array} \right] + [\text{Disp}] \Rightarrow$$

$$[+\text{Motion}] + X + \left[ \begin{array}{c} +V \\ +\text{Motional} \end{array} \right] + [+\text{Motion}]$$

DS13. [+Motion] + X + $$\left[ \begin{array}{c} +V \\ +\text{Motional} \end{array} \right] + [+\text{Motion}] \Rightarrow$$

$$\left[ \begin{array}{c} +\text{Motion} \\ \pm\text{Horiz} \end{array} \right] + X + \left[ \begin{array}{c} +V \\ +\text{Motional} \end{array} \right] + \left[ \begin{array}{c} +\text{Motion} \\ \pm\text{Horiz} \end{array} \right]$$

DS14. (Optional)

$$\left[ \begin{array}{c} +\text{Motion} \\ +\text{Horiz} \end{array} \right] + \left[ \begin{array}{c} +V \\ +\text{Motional} \end{array} \right] + \left[ \begin{array}{c} +\text{Motion} \\ +\text{Horiz} \end{array} \right] \Rightarrow$$
\[
\begin{align*}
\text{DS15.} & \quad [+\text{Motion}] + X + [+V] + [+\text{Motional}] + [+\text{Motion}] \\
& \quad [\pm\text{Horiz}] + X + [\pm\text{Toward}] \\
& \quad [+\text{Motion}] + X + [+V] + [+\text{Motional}] + [+\text{Motion}] \\
& \quad [\pm\text{Horiz}] + X + [\pm\text{Toward}] \\
\end{align*}
\]

\[
\begin{align*}
\text{DS16.} & \quad [\text{Disp}] + X + [+V] + [\text{Disp}] \\
& \quad [\pm\text{Motion}] + X + [+V] + [\pm\text{Motion}] \\
\end{align*}
\]

\[
\begin{align*}
\text{DS17.} & \quad [\pm\text{Motion}] + X + [+V] + [\pm\text{Motion}] \\
& \quad [\pm\text{Action}] + X + [+V] + [\pm\text{Motion}] \\
& \quad [\pm\text{Action}] \\
\end{align*}
\]

\[
\begin{align*}
\text{DS18.} & \quad [\pm\text{Motion}] + X + [+V] + [\pm\text{Action}] + [\pm\text{Action}] \\
& \quad [\pm\text{Action}] + X + [+V] + [\pm\text{Action}] + [\pm\text{Action}] \\
& \quad [\pm\text{Action}] + X + [+V] + [\pm\text{Action}] + [\pm\text{Action}] \\
& \quad [\pm\text{Action}] + X + [+V] + [\pm\text{Action}] + [\pm\text{Action}] \\
\end{align*}
\]

\[
\begin{align*}
\text{DS19.} & \quad [\pm\text{Motion}] + X + \left\{ [+V] + [\pm\text{Stasis}] \right\} + [\pm\text{Action}] \\
& \quad [\pm\text{Action}] + X + \left\{ [+V] + [\pm\text{Stasis}] \right\} + [\pm\text{Action}] \\
& \quad [\pm\text{Action}] + X + \left\{ [+V] + [\pm\text{Stasis}] \right\} + [\pm\text{Action}] \\
& \quad [\pm\text{Action}] + X + \left\{ [+V] + [\pm\text{Stasis}] \right\} + [\pm\text{Action}] \\
\end{align*}
\]
Transformational Rules

1. T-Num-Pers-agr:

\[
X + \begin{bmatrix}
\text{Num} \\
\text{Pers}
\end{bmatrix} + N + \text{Aux} + Y \Rightarrow
\]

\[
X + \begin{bmatrix}
\alpha\text{Num} \\
\beta\text{Pers}
\end{bmatrix} + N + \begin{bmatrix}
\text{Tense} \\
\text{Aspect} \\
\text{Mood} \\
\text{Voice} \\
\vdots \\
\alpha\text{Num} \\
\beta\text{Pers}
\end{bmatrix} + Y
\]

2. T-id:

\[
X + \text{Det} + \begin{bmatrix}
\vdots \\
+\text{S/Sub}
\end{bmatrix} + Y \Rightarrow X + S + Y
\]

3. T-Prep-Aux-del:

Prep + S + Aux + Y \Rightarrow S + Y

4. T-AA_1:

\[
X + \begin{bmatrix}
\vdots \\
+\text{Circum}
\end{bmatrix} + \begin{bmatrix}
\vdots
\end{bmatrix} + \text{NP} + \begin{bmatrix}
\vdots
\end{bmatrix} + \text{V} + Y \Rightarrow
\]

\[
X + \begin{bmatrix}
+\text{Pres} \\
-\text{Perf} \\
+\text{Part} \\
-\text{Pas} \\
+\text{Circum}
\end{bmatrix} + \text{V} + Y + \begin{bmatrix}
\vdots
\end{bmatrix} + \text{NP}
\]

5. T-AA_2:

\[
X + \begin{bmatrix}
\vdots \\
+\text{Circum}
\end{bmatrix} + \begin{bmatrix}
\vdots
\end{bmatrix} + \text{NP}_1 + \begin{bmatrix}
\vdots
\end{bmatrix} + \begin{bmatrix}
\vdots
\end{bmatrix} + \begin{bmatrix}
+\text{V} \\
+\text{Pass}
\end{bmatrix} + \begin{bmatrix}
\vdots
\end{bmatrix} + \text{NP}_2 \Rightarrow
\]
X + \left[ +\text{Pres} \right] + \left[ +V \right] + \left[ \vdots \right] + \left[ +\text{Circum} \right] + \text{NP2} + \left[ \vdots \right] + \text{NP1} \\
\left[ +\text{Perf} \right] + \left[ +\text{Part} \right] + \left[ +\text{Pass} \right] + \left[ +\text{Circum} \right] \\

6. T-\text{ab} + \text{NP-del}: (Optional) \\
X + \left[ \vdots \right] + \text{NP1} + Y \Rightarrow X + Y \\
\left[ \vdots \right]

\text{Realization Rules}

1. RR-\text{Adverb}: \\
X + \left[ +V \right] + \text{Prep} + \text{Det} + \left[ +\text{N} \right] + \Rightarrow \\
\left[ +\text{Aux} \right]
X + \left[ +V \right] + \emptyset + \emptyset + \Rightarrow -\emptyset

2. RR-\text{ibi}: \\
\left[ +\text{N} \right] + \Rightarrow \text{ibi} \\
\left[ +\text{Adv} \right] \\
\left[ +\text{Location} \right] \\
\left[ +\text{Distant} \right] \\
\left[ \vdots \right]

3. RR-\text{aput} + \text{acc}: \\
X + \left[ +V \right] + \left[ +\text{Place} \right] + \text{Det} + N \Rightarrow \\
\left[ +\text{Stasis} \right]
X + \left[ +V \right] + \text{aput} + (\text{det-ACC}) + \Rightarrow -\text{ACC}

4. RR-\text{cata} + \text{acc}: \\
X + \left[ +\text{Aux} \right] + \left[ +\text{Place} \right] + \Rightarrow \\
\left[ +\text{Distributive} \right]
X + \left[ +\text{Aux} \right] + \text{cata} + (\text{det-ACC}) + \Rightarrow -\text{ACC}
5. RR-in+ abl:

\[ X + \left( \left\{ \left[ +V \right] \left\{ +\text{Action} \right\} \left\{ +\text{Stasis} \right\} \left\{ [+\text{Aux}] \right\} \right\} \right) + \left[ +\text{Place} \right] + \left[ +\text{Time} \right] + \left[ +\text{Respect} \right] + \text{Det} + \left[ +N \right] \Rightarrow \]

\[ X + \left( \left\{ +V \right\} \left\{ +\text{Action} \right\} \left\{ +\text{Stasis} \right\} \left\{ [+\text{Aux}] \right\} \right) + \text{in} + (\text{det-ABL}) + \text{_____}-\text{ABL} \]

6. RR-in+ acc:

\[ X + \left[ +V \right] \left[ +\text{Motional} \right] + \left[ +\text{Up} \right] + \text{Det} + \left[ +N \right] \Rightarrow \]

\[ X + \left[ +V \right] \left[ +\text{Motional} \right] + \text{in} + (\text{det-ACC}) + \text{_____}-\text{ACC} \]

7. RR-per+ acc:

\[ X + \left[ +V \right] \left[ +\text{Stasis} \right] + \left[ +\text{Place} \right] + \text{Det} + \text{N} \Rightarrow \]

\[ X + \left[ +V \right] \left[ +\text{Stasis} \right] + \text{per} + (\text{det-ACC}) + \text{_____}-\text{ACC} \]

8. RR-super+ acc:

\[ X + \left[ +V \right] \left[ +\text{Actional} \right] + \left[ +\text{Place} \right] + \text{Det} + \left[ +N \right] \Rightarrow \]

\[ X + \left[ +V \right] \left[ +\text{Actional} \right] + \text{super} + (\text{det-ACC}) + \text{_____}-\text{ACC} \]

9. RR-ad+ acc:

\[ X + \left[ +V \right] \left[ +\text{Motional} \right] + \left[ +\text{Goal} \right] + \text{Det} + \left[ +N \right] \Rightarrow \]
\[ X + \left[ +V \begin{array}{c} \text{[Motional]} \\
\text{[Actional]} \end{array} \right] + \text{ad} + (\text{det-ACC}) + \text{_____ -ACC} \]

10. RR-ad + acc₂:
\[ X + \left[ +V \begin{array}{c} \text{[Motional]} \\
\text{[Actional]} \end{array} \right] + [+\text{Purpose}] + \text{Det} + [+\text{N}] \Rightarrow \]
\[ X + \left[ +V \begin{array}{c} \text{[Motional]} \\
\text{[Actional]} \end{array} \right] + \text{ad} + (\text{det-ACC}) + \text{_____ -ACC} \]

11. RR-de + abl₁:
\[ X + \left[ +V \begin{array}{c} \text{[Motional]} \\
\text{[Actional]} \end{array} \right] + [-\text{Toward}] + \text{Det} + [+\text{N}] \Rightarrow \]
\[ X + \left[ +V \begin{array}{c} \text{[Motional]} \\
\text{[Actional]} \end{array} \right] + \text{de} + (\text{det-ABL}) + \text{_____ -ABL} \]

12. RR-de + abl₂:
\[ X + [+\text{Aux}] + [+\text{Time}] + \text{Det} + [+\text{N}] \Rightarrow \]
\[ X + [+\text{Aux}] + \text{de} + (\text{det-ABL}) + \text{_____ -ABL} \]

13. RR-ante + acc:
\[ X + \left[ +V \begin{array}{c} \text{[Motional]} \\
\text{[Actional]} \end{array} \right] + [+\text{Time}] + \left[ +\text{Previous} \right] + \text{Det} + [+\text{N}] \Rightarrow \]
\[ X + \left[ +V \begin{array}{c} \text{[Motional]} \\
\text{[Actional]} \end{array} \right] + \text{ante} + (\text{det-ACC}) + \text{_____ -ACC} \]

14. RR-cum + abl:
\[ X + \left[ +V \begin{array}{c} \text{[Motional]} \\
\text{[Actional]} \end{array} \right] + \left[ +\text{Manner} \begin{array}{c} \text{[Accompaniment]} \end{array} \right] + \text{Det} + [+\text{N}] \Rightarrow \]
\[ X + \left[ +V \begin{array}{c} \text{[Motional]} \\
\text{[Actional]} \end{array} \right] + \text{cum} + (\text{det-ABL}) + \text{_____ -ABL} \]
15. RR-\(a\) + abl\(_1\):
\[ X + [+Aux] + \begin{bmatrix} [+Time] \\ [+Range] \end{bmatrix} + Det + N \Rightarrow \]
\[ X + [+Aux] + a + (det-ABL) + _____-ABL \]

16. RR-\(a\) + abl\(_2\):
\[ X + \begin{bmatrix} +V \\ [+Actional] \end{bmatrix} + [+Separation] + Det + N \Rightarrow \]
\[ X + \begin{bmatrix} +V \\ [+Actional] \end{bmatrix} + a + (det-ABL) + _____-ABL \]

17. RR-pro + abl:
\[ X + \left( \begin{bmatrix} +V \\ {+Motional} \end{bmatrix} \right) + [+Reason] + Det + [+N] \Rightarrow \]
\[ X + \left( \begin{bmatrix} +V \\ {+Motional} \end{bmatrix} \right) + \text{pro} + (det-ABL) + _____-ABL \]

18. RR-cum (Time)-AC:
\[ X + \begin{bmatrix} : \\ +Time \\ +Simul \end{bmatrix} + Y + \begin{bmatrix} +Past \\ -Perf \\ +Subj \end{bmatrix} + Z \Rightarrow \]
\[ X + \text{cum} + Y + \begin{bmatrix} : \\ +Subj \end{bmatrix} + Z \]

19. RR-post(ea)quam-AC:
\[ X + \begin{bmatrix} +Time \\ +Post \end{bmatrix} + Y + \begin{bmatrix} : \\ +Indic \end{bmatrix} + Z \Rightarrow \]
\[ X + \text{post(ea)quam} + Y + \begin{bmatrix} \vdots \\ +\text{Indic} \end{bmatrix} + Z \]

20. RR-antequam-AC:
\[ X + \begin{bmatrix} \vdots \\ +\text{Time} \\ +\text{Pre} \end{bmatrix} + Y + \begin{bmatrix} \vdots \\ +\text{Indic} \{+\text{Subj}\} \end{bmatrix} + Z + \Rightarrow \]
\[ X + \text{antequam} + Y + \begin{bmatrix} \vdots \\ +\text{Indic} \{+\text{Subj}\} \end{bmatrix} + Z \]

21. RR-mox-AC:
\[ X + \begin{bmatrix} \vdots \\ +\text{Time} \\ +\text{Immediate} \\ +\text{Future} \end{bmatrix} + Y + \begin{bmatrix} \vdots \\ +\text{Indic} \end{bmatrix} + Z + \Rightarrow \]
\[ X + \text{mox} + Y + \begin{bmatrix} \vdots \\ +\text{Indic} \end{bmatrix} + Z \]

22. RR-quomodo-AC:
\[ X + \begin{bmatrix} \vdots \\ +\text{Manner} \end{bmatrix} + Y + \begin{bmatrix} \vdots \\ +\text{Indic} \end{bmatrix} + Z + \Rightarrow \]
\[ X + \text{quomodo} + Y + \begin{bmatrix} \vdots \\ +\text{Indic} \end{bmatrix} + Z \]

23. RR-quam-AC:
\[ X + \begin{bmatrix} +\text{Adj} \\ +\text{Comparative} \end{bmatrix} + \begin{bmatrix} \vdots \\ +\text{Comparison} \end{bmatrix} + Y + \begin{bmatrix} \vdots \\ +\text{Indic} \end{bmatrix} + Z + \Rightarrow \]
X + \begin{array}{c}
\text{[+Adj]} \\
\vdots \\
\text{[+Comp]}
\end{array} + \text{quam} + \begin{array}{c}
\vdots \\
\text{[+Indic]}
\end{array} + Y + \begin{array}{c}
\vdots \\
\text{[+Indic]}
\end{array} + Z

24. RR-\text{quia}-AC:

X + \begin{array}{c}
\vdots \\
\text{[+Reason]}
\end{array} + Y + \begin{array}{c}
\vdots \\
\text{[+Indic]}
\end{array} + Z \Rightarrow

X + \text{quia} + Y + \begin{array}{c}
\vdots \\
\text{[+Indic]}
\end{array} + Z

25. RR-\text{ut} + \text{Indic}-AC:

X + \begin{array}{c}
\vdots \\
\text{[+Explanation]} \\
\text{[+Modality]}
\end{array} + Y + \begin{array}{c}
\vdots \\
\text{[+Indic]}
\end{array} + Z \Rightarrow

X + \text{ut} + Y + \begin{array}{c}
\vdots \\
\text{[+Indic]}
\end{array} + Z

26. RR-\text{ut} + \text{Subj}-AC:

X + \begin{array}{c}
\vdots \\
\text{[+Result]} \\
\text{[+Purpose]}
\end{array} + Y + \begin{array}{c}
\vdots \\
\text{[+Subj]}
\end{array} + Z \Rightarrow

X + \text{ut} + Y + \begin{array}{c}
\vdots \\
\text{[+Subj]}
\end{array} + Z

27. RR-\text{si}-AC:

X + \begin{array}{c}
\vdots \\
\text{[+Condition]} \\
\text{[+Real]}
\end{array} + Y + \begin{array}{c}
\vdots \\
\text{[+Indic]}
\end{array} + Z \Rightarrow
X + \textit{si} + Y \quad \begin{array}{c}
\vdots \\
+\text{Indic}
\end{array} + Z

28. RR-\textit{cum}/\textit{licet}-\text{AC}:

\begin{align*}
X + & \begin{array}{c}
\vdots \\
+\text{Concession}
\end{array} + Y + \begin{array}{c}
\vdots \\
+\text{Subj}
\end{array} + Z \\
X + & \{ \textit{cum} \} + Y + \begin{array}{c}
\vdots \\
+\text{Subj}
\end{array} + Z
\end{align*}

29. RR-\textit{quod}-\text{AC}:

\begin{align*}
X + & \begin{array}{c}
\vdots \\
+\text{Hypothesis}
\end{array} + Y + \begin{array}{c}
\vdots \\
+\text{Indic}
\end{array} + Z \\
X + & \textit{quod} + Y + \begin{array}{c}
\vdots \\
+\text{Indic}
\end{array} + Z
\end{align*}

30. RR-\textit{AA}_1:

\begin{align*}
X + & \begin{array}{c}
+\text{Pres} \\
-\text{Perf} \\
+\text{Part} \\
-\text{Pas} \\
+\text{Circum}
\end{array} + V + Y + \begin{array}{c}
\vdots \\
+\text{Circum}
\end{array} + \text{Det} + \text{N} \\
X + & ( V_s + \text{Thv} + \textit{nt} -\text{ABL}) + Y + ( N_s -\text{ABL})
\end{align*}

where \( V_s \) = Verb Stem, \( \text{Thv} \) = Thematic Vowel, \( N_s \) = Noun Stem, and -ABL = the appropriate ablative morpheme

and where \( N_s \) is an \( N_s \) of the subject or object in the surface structure of the matrix sentence
31. RR-AA₂:

$$X + \begin{bmatrix} +\text{Pres} \\ +\text{Perf} \\ +\text{Part} \\ +\text{Pas} \\ +\text{Circum} \end{bmatrix} + V + \begin{bmatrix} \vdots \\ +\text{Circum} \end{bmatrix} + N P + Y \Rightarrow$$

$$X + (\underline{\text{Ps}} -\text{ABL}) + Y + (\underline{\text{Ns}} -\text{ABL})$$

where \( \text{Ps} \) = Participial Stem Stem, 
\( \text{Ns} \) = Noun Stem, and 
\( -\text{ABL} \) = the appropriate ablative morpheme

and where \( \text{Ns} \) ≠ an \( \text{Ns} \) of the subject or object in the surface structure of the matrix sentence
VITA

James Alexander Thorburn was born on Scotch Ridge, near Martins Ferry, Ohio, August 24, 1923. He attended Brush (a one-room country) School for eight years and received his secondary education from the Charles R. Shreve High School in Martins Ferry, graduating in 1941. After two years at The Ohio State University, he was called to duty in the Field Artillery for approximately three years, with action in the European Theater of Operations. In 1949 he graduated from Ohio State with a B.A. in English. In 1951 he received his M.A., also in English, from the same institution, having written his thesis on Jonathan Edwards under the direction of the late Newton Arvin. Subsequently, he took several graduate courses in Education at the University of Missouri. Besides teaching English one year in high school at the Sheridan Rural Agricultural School in Michigan, he has taught a number of years in various colleges and universities, including the University of Missouri at both Columbia and St. Louis, Monmouth College in Illinois, The University of Texas at El Paso, and the Louisiana State University in Baton Rouge. He now serves on the faculty of Southeastern Louisiana University at Hammond, where he teaches English and Linguistics.
EXAMINATION AND THESIS REPORT

Candidate: James Alexander Thorburn

Major Field: Linguistics

Title of Thesis: A UNIFIED THEORY OF ADVERBIALS BASED ON THE SANCTAE SILVIAE PEREGRINATIO AD LOCA SANCTA

Approved:

Wyatt E. Pickens
Major Professor and Chairman

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Date of Examination:

November 21, 1977