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**PUNCTUATION AND THE ORTHOGRAPHIC SENTENCE: A LINGUISTIC
ANALYSIS**

City University of New York

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PUNCTUATION AND THE ORTHOGRAPHIC SENTENCE

A Linguistic Analysis

Joan Persily Levinson

A dissertation submitted to the Graduate Faculty in Linguistics
in partial fulfillment of the requirements for the degree of
Doctor of Philosophy, The City University of New York.

1985

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This manuscript has been read and accepted for the Graduate Faculty in Linguistics in satisfaction of the dissertation requirement for the degree of Doctor of Philosophy.

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PUNCTUATION AND THE ORTHOGRAPHIC SENTENCE

A Linguistic Analysis

Joan Persily Levinson

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It didn't make any sense to him that
writing would sound like a person.
Writing was writing, it wasn't like talking.
But he did as he was told.

Elmore Leonard, La Brava

Chapter One

INTRODUCTION

The study of punctuation has received virtually no attention in twentieth-century linguistics, for modern research has been dedicated almost exclusively to language as embodied in speech.¹ Other kinds of research have dealt to some extent with punctuation--in paleographic studies of ancient scripts and manuscripts, and in literary studies to attribute texts, establish uncorrupted versions of important works, and on occasion explore its stylistic use.² On the practical side, punctuation is considered sufficiently important so that no pedagogic grammar or handbook of English today lacks its prescriptive guide to ideal usage. Yet although it is unthinkable for modern writing to do without punctuation, no work has concentrated on determining what linguistic or metalinguistic theories underlie its use in modern English writing, or where punctuation belongs in linguistic studies.

Initially, this study was undertaken to provide the first linguistic analysis of contemporary English punctuation. It was assumed that although current theoretical research was lacking, a reasonable amount of diachronic descriptive work was available; one could rapidly acquire an understanding of the "history" of punctuation (a "review of the literature"), which would then provide, if not a context for further research, at least some reliable background information, allowing the specific research at hand to go forward. A couple of weeks in the library would suffice, and then the research could focus on the main task of identifying and analyzing appropriate data and developing suitable and testable hypotheses. In point of fact, this conventional plan of action turned out not to be possible, for the following reasons.

To begin with, the attention paid to punctuation even in other, nonlinguistic, fields is limited and hard to find, nestling as it does in occasional works devoted to other subjects. Second, when this scattered work is unearthed, it is in general mutually unrelated, and with the exception of a few Shakespearean studies it evinces none of the critical dialogue that characterizes a "field" of research. Third, most of this sparse material on punctuation is either uninterpretable or wrong. How

are we to interpret the comment that in eighth-century Latin the "inverted semicolon" was "a sort of middle way between our comma and semicolon" (Diringer 1976,36), when "our comma" and "our semicolon" are precisely what have to be researched? And in what way could a Latin text of over a millenium ago be like a text today such that the marks of one could be described in terms of the marks of the other? This naive approach, resulting in the kind of assertion that the linguist must replace with careful study based on scientifically respectable principles, is representative of most work on early marking. On the other hand, one also finds statements that claim, in direct contradiction to the quotation above, that punctuation is "[owed] to the ingenuity of the printer Manutius," and that before him it was "confined to the period or full stop," and "before that, punctuation was unknown" (Partridge 1963,6). Not only do these two sources conflict totally with each other, neither describes the true state of affairs. Yet they are typical of what is found in the "literature" on punctuation, and in fact come from two of the more knowledgeable writers on the topic.

When it became clear that the exiguous material about early punctuation practices was untrustworthy, then it also became clear that it would be necessary to go to

original sources for firsthand observation. Here, new difficulties lay in wait. If one is analyzing modern punctuation, the daily newspaper, a good magazine, a high school textbook--almost anything published--will serve as an initial sample, because our current practices are to a great extent standardized and commonly observed. One soon learns, however, all facile claims to the contrary, that this is not the case with early punctuation. You cannot pick up a typical example of seventeenth-century punctuation, because there is none. And should the linguist be brave enough to venture into the earlier world of manuscripts and scribes (which must be done to draw a true map of English punctuation), the terrain becomes totally uncharted. It is entirely inadequate to examine a couple of manuscripts from the last half of the fifteenth century, and a couple from the middle, and some from the beginning, and so on back through the centuries, for no manuscript or sampling of manuscripts captures the practices of a time. In order to find out what was really going on, one has to look at virtually all of what was written--for all of it represents "what was really going on"--and this becomes a matter of research on its own. Thus the information in the following chapters on writing before printing has not only been winnowed from perhaps everything scholarly written in English on punctuation that is accessible, but by

considerable firsthand examination of original texts and of manuscripts available in published facsimiles.³

The result of the preliminary investigation was the realization that in the light of the lack of even basic facts about early punctuation (a) a considerable amount of clearing away of misinformation and ignorance was necessary before a reasonable discussion could take place, and (b) a new understanding of the earlier practices was required prior to any attempt at a responsible synchronic analysis. Furthermore, such a program would identify and examine the useful descriptive and theoretical work on earlier punctuation, providing a convenient entry into available resources. This became the first part of this dissertation. The second part emerged from the reassessment of past practices. The uses of the past indeed have the effect of forcing a new approach to the punctuation of any period, although as this research demonstrates, not in obvious ways, and a preliminary analysis of modern English punctuation is presented in Chapter 5.

The most serious flaw in contemporary work on the punctuation of any period is that it is based on unexamined assumptions, two in particular that are significant for the linguist. One is that "punctuation marks syntax" (Gleason 1961,433); the other is that the

fundamental syntactic entity which determines punctuation is the "sentence." Both of these assumptions need to be investigated and clarified if work in contemporary punctuation is to escape from untested assumptions and superficial claims.

The notion of the sentence is itself a concept whose exact nature is a matter of considerable dispute in linguistics, and it has no commonly accepted definition (see Bloomfield 1931, Bloomfield 1933,170; Sapir 1921,35; Jespersen 1924,307, to select only a few, or the common "explanation" of the sentence as a "complete thought"). This dispute has been so unrewarding that it has been abandoned by serious linguists (except for some work in speech act theory, e.g. Morgan 1975). Most of the definitions are not so much contradictory as that they simply have very little to do with each other. And to compound the difficulty (leaving aside American descriptivists who concentrated on phonology, and for whom a sentence was a particular phonological contour), there is very little discussion of the written sentence as distinct from the grammatical sentence. Consider the following:

(1) Here.

(2) Here is where the dog ate it.

- (3) The dog ate it.
- (4) Tocqueville's reaction to the revolution of 1848 raises a question about his attitudes toward the socialist doctrines that were swiftly emerging in public life during the July Monarchy and had much influence on the revolutionary leadership of the June days.

Though these are all well-formed sentences, there is little that they have in common, except that they all correctly begin with a capital and end with a period. In fact, in many serious works this is the "definition" of the sentence (Long 1961,9; Allerton 1969,27). Yet the appropriate distribution of capitals and periods is invariably stated in terms of the requirements of the sentence. The sequence appears to be circular. If we try to establish rules to account for the distribution of punctuation, the rules require the prior notion of sentence, yet the clearest identification of "sentence" hinges on our sense of the proper placement of capital letters and periods.⁴

Nevertheless, it is true that to examine punctuation takes one into the domain of the sentence, and to examine the orthographic sentence involves an analysis of punctuation. Neither the marking in any period of English writing, nor the orthographic sentence, can be explained in isolation from each other, precisely because they are mutually defining. Such a view requires

a reappraisal of the widely held notion that the sentence in writing is a prior grammatical entity from which rules of punctuation flow. A central hypothesis developed in this research is that the "sentence" in writing is not a grammatical unit and is not to be explained by the grammar of the language (accounting for both the difficulty in defining it and the reluctance to do so), and that consequently its punctuation does not "mark syntax." This is not to say that there is no grammar, that there are no requirements on syntactic arrangements and on acceptable writing, but that the characteristics of the sentence in written English are such that syntactic rules alone (or even mainly) cannot capture them.

There are two ways in which this work seeks to explore this issue. One avenue is to establish the earlier status of the sentence in English writing. If the explicit demarcation of sentences is relatively recent in written discourse (whereas grammatical structure inheres in language), then the status of the orthographic sentence is shown to be distinct from the sentence in grammar. And consequently, if the orthographic sentence is not a grammatical entity, then punctuation, including the capitals and periods that define sentences, may also not be grammatically

motivated. To support that view, the linguistic examination of the early use of punctuation, and an effort to explain its distribution, is presented in the first part of this dissertation. That research demonstrates that the signs that demarcate the "sentence" did not exist at least up till 1500, and even thereafter, and that the sentence as a unit of writing was not developed before the spread of printing.

A second way to develop an understanding of the modern orthographic sentence is by a purely synchronic reanalysis of its present conventions. Such a study is presented in the last chapter, where it is proposed that the orthographic sentence is best viewed as an "informational grouping," based on but distinct from syntactic structure, and specified by the punctuation, not by rules of the grammar. This approach is able to account for the placement of capitals and periods around all "sentences," or informational groupings, without being circular. Within this approach it is also possible to view sentence-internal punctuation in a new light. Two basic categories are distinguished--obligatory and optional--as a preliminary to a future analysis of punctuation based on a better fit between abstract categories and the data. Working from a more manageable corpus than punctuation normally offers, an initial

taxonomy of obligatory punctuation is presented.

A further word about the investigation of early English "punctuation" practices. It is worth repeating that the very early manuscripts in England, even before the development of Middle English, need to be looked at, for it is not possible to depend on previous study of early "pointing." Virtually no linguistically sophisticated research has been done on these punctuation practices (Lepschy 1964,89 says "the work devoted in particular to punctuation amounts almost to nothing"), and even from a nonlinguistic approach, "there is no general study of medieval systems of punctuation" (Southern 1962, xxxii). Then there is the problem of terminology. The name of a punctuation mark is not merely a reference to a particular shape. The term "period" in punctuation does not refer only to a round dot, nor does "comma" refer only to a small vertical semicircle. For the modern reader, these terms also refer to their distribution--a period ends sentences, a comma does not. Therefore, when paleographers or literary scholars report that a period is found in early texts, and do not also say that the mark is merely a period in shape only, the issue of sentences and punctuation is confused even further. The question frequently asked, by specialists and nonspecialists

alike, "When did periods first appear in English?" cannot be answered (although typographic specialists do purport to answer), but has to be reformulated into something like "When did certain marks (or their allographs) begin to interact consistently with certain kinds of linguistic expressions?"

Intensive investigation of some aspect of language change normally builds upon a body of generally accepted knowledge, or modifies it. If one wants to do research in the orthography of English words or the fate of Old English or Middle English inflections, there is enough research in the history of Middle and Early Modern English to allow specialized work within a defined and narrow area. In the case of punctuation, there are only a handful of isolated articles⁵ and no coherent frameworks within which to operate. Even in the histories and studies of scripts and hands and texts, the pointing of these documents has been neglected.⁶ Yet asking properly formulated questions makes it clear that trying to understand our contemporary philosophy of punctuation without understanding the usages of earlier periods and their sources is bound to fail.

It would be satisfying to find a continuous line of development in punctuation from its earliest beginnings to present practice. That this is not the case is perhaps one reason why so many myths about it prevail and why punctuation has been neglected as a subject for scholarly research. But it does have a past, intimately connected to two major developments: changes in the uses of writing and especially in the production of books; and the changing view of language over a period of several centuries.

Although the alphabet was said to have been invented once, and then spread widely and quickly, and a line of descent is easily traced, this is not true for punctuation. Widely varying practices in marking appeared and disappeared in Europe from classical Greek all the way to the century after the invention of printing. The presence or absence of the different versions of "punctuation" depended at least as much on social and historical conditions as on narrowly linguistic or even literary factors. It was the mechanical nature of movable type and the mass products of the printing press that allowed punctuation eventually to become standardized, disseminated related systems widely, and halted any further massive changes. An examination of early practices supports the view that it

was not until well after the invention of printing created a population of readers that marks of punctuation began to reflect something other than the spoken language, or attempts at that.

The conclusions presented here about early English marking are different from the accepted doctrines about punctuation. They are shaped by a linguistic perspective, and differ from what is found in most secondary sources, which have been prepared by paleographers and Latinists and Early English scholars not concerned with the issues under discussion here. They reflect the following interrelated positions. (1) Though there was a practice of marking some written texts during much of the Middle Ages, there was no general system of punctuation until after the arrival of printing. (2) Our current practices are not descended from anything in use before the early printers in Europe established their "house" rules, which did not become commonly standardized until the eighteenth century. (3) Such a situation was possible because until the printed book itself developed a large population of silent readers, writing was seen as a guide to speaking, most commonly to an audience, or to one's inner ear. (4) Punctuation to aid the silent reader, that is, informational and stylistic, was not necessary until

there were many silent readers.

It is useful to start this investigation with an overview of the classical Latin period and to continue through medieval Latin to ascertain what if any were the punctuation practices that could have been inherited into Old English. Vernaculars other than English are not covered, for until printed books became available, such influence would have been mediated by the scribes' lingua franca, Latin. For the earlier and later Middle English periods up to and just past the invention of printing, specific documents are examined.

NOTES

1. Very recently, there have been a few works dealing with punctuation. Aronoff 1985 is a linguistic analysis of Masoretic Hebrew marking; the disparate articles in Catach 1980, Hirschberg 1965, Marchello-Nizia 1978, and Moreau-Marechal 1968 deal with French from a variety of perspectives; Tognelli 1963 discusses Italian, but not rigorously; Steegar 1975 deals with some aspects of intonation and punctuation. Earlier, some of the American descriptivists, Fries 1925, Fries 1952, Whitehall 1956, and Francis 1958 touched on punctuation in their textbooks, but even though such studies as McIntosh 1956, Francis 1962, McLaughlin 1963, and Wakelen 1981 provide "graphemic analyses," they fail to deal with punctuation. Vachek 1973 does not mention punctuation; Firbas 1955 did write on English sentence punctuation but unfortunately his paper is untranslated.

2. For examples of literary studies of punctuation, see Simpson 1928 on Donne; Banks 1927, Diekhoff 1936, Treip 1970, and Creaser 1983, 1984 on Milton; Hall 1982 on Frost; and Helms 1971 on punctuation in poetry in general. Some of the entries in Bennett et al. 1977 deal with literary uses of punctuation.

3. In addition to the facsimiles and manuscripts referenced throughout the text, the following sources have also been carefully examined: Bibliotheque Nationale MSS. Anglais 25 and 41, Bishop 1960, Bishop and Chaplais 1957, Chaplais 1971, Dawson and Kennedy 1966,

Denholm-Young 1964, Dillon and Hope 1914, Greg 1913, Grieve 1949-54, Horrox and Hammond 1979, Jenkinson 1915, Jenkinson 1927, Johnson and Jenkinson 1915, Ker 1957, Parkes 1979, Rand and Jones 1934, Sanders 1865a, Sanders 1865b, Simpson 1935, Skeat 1892, Sylvestre 1865, Tannenbaum 1967, Watson 1979, the Paleographic Society series, and the various volumes in the New Paleographic Society series.

4. For example, consider the quandary of two of the best handbooks. From Perrin 1965 on the sentence: "a sentence is a stretch of prose which an experienced writer intentionally punctuates as a sentence (by beginning it with a capital letter and ending it with a period, a question mark, [etc.])" (276); but on punctuation: "Sentence marks, used principally to mark the end of sentences: [the period] at end of statements..." (387). And from Imscher 1981 on the sentence: "In writing, words beginning with capitals and ending with a terminal mark of punctuation are called sentences" (114); and on the use of the period: "To mark a full stop, whether the break comes at the end of a sentence or at the end of a fragment written as a sentence" (214).

5. As far I can ascertain, the following list exhausts the serious work in English focused on early English punctuation: (a) for Old English--Willard 1950, Clemons 1952, Harlow 1959, Cyrus 1971, Stevick 1975, Whittaker 1980; (b) for Middle English--Cawley 1937, Clemons 1952, Morgan 1952, Zeeman 1956, Ker 1960, Lucas 1971, McCracken 1971, Parkes 1978. There are, occasionally, thoughtful comments about punctuation in articles on Early English writing, e.g. McIntosh 1949; in the introductions to some facsimile volumes, e.g. Pintelon 1940; and especially in the excellent

volumes in the Early English Manuscripts in Facsimile series, specifically volumes I,III,VI,X,XII,XIII, XVIII,XIV.

6. A typical example is English Vernacular Hands from the Twelfth to the Fifteenth Century (Wright 1960), which provides facsimiles and transcriptions and notes on the script and on spelling but says nothing about nonalphabetic marking. Similarly, in Latin Bookhands of the Later Middle Ages in England and Europe (Thomson 1969) the original marking is in general ignored, and the editor warns that he has in the transcriptions "punctuated lightly where it seemed necessary for the sense" (introduction). Even Anderson 1969, an otherwise superb and scholarly volume, does not include punctuation.

Chapter 2

LATIN WRITING

It is necessary in this examination of early punctuation practices to include the Latin classical period partly to provide coherence for the reader, but mainly to show that punctuation developed only long after continuous written texts appeared, and furthermore did not constitute a linked chain of development.

2.1 Classical Writing

Until very recently, classical Latin punctuation was ignored or misinterpreted (see the review in Wingo 1972). It is easy to understand why, for Latin documents of the classical era are meager, consisting of a couple of dozen fragments of inscriptions on stone and a few scraps of papyri; all that remains from about 20 b.c. to 250 a.d. comes to no more than several hundred lines. The marking that has been found in these Latin texts are examined in Wingo, which lists every one of their nonalphabetic signs and provides their linguistic context.

During this period, Latin writing indicated words by a dot separating them, just as we use spaces today, a practice later abandoned in favor of a scripta continua with no breaks of any kind between words. In addition to this word divider, some twenty different marks appear in the remains, most of them only once or twice. Wingo feels that these examples comprise a system and tries to uncover a consistent pattern of grammatical use. However, his own extensive evidence denies this claim. Only two marks, the point between words and the paragraph mark separating long sections of writing, have a fixed value. That is, only "word" and some notion of "paragraph" are distinguished. All the other marks are found in equivalent contexts; they are used interchangeably.

The most common mark, and the most ancient, is the blank space, but the space "can have the force of any written mark" (128); that is, it can appear "instead" of any other mark. In a single composition "there appears to be considerable overlapping of the function of the various signs" and in the remains taken as a whole, "there is a very great overlapping...Each appears in constructions grammatically identical with constructions in which other symbols are used" (133). Furthermore, punctuation is absent at "junctures that seem grammatically and rhetorically indistinguishable" (137) from equivalent stretches where

there are marks. Perhaps the strongest evidence against there being a commonly used system of punctuation in classical Latin is that any mark can be found where "there is no syntactic break of any kind" (138).

There is even the absence of marking of what Wingo calls "complete units of thought, i.e., sentences" (48). Yet part of Wingo's judgment that classical Latin marking is a system of punctuation responding to syntax is that he (sometimes) finds punctuation at the end of "complete units of thought, i.e., sentences." There is a circularity in this argument, which reflects an issue that plagues virtually all work on early punctuation. Paleographers and literary scholars are not in the habit of questioning "the sentence." Yet exactly the same stretch of writing (from Latin, Old English, or Middle English texts) has been divided into different sentences by different editors. Wingo himself questions one editing of a Latin text, Res Gestae Augusti, re-editing to change the sentence boundaries. The fact that other versions yield good sentences contradicts the faith that sentence boundaries are clearcut. Wingo uses the notion of "complete thought" to determine "sentences"--that is, where sentence boundaries are. But "complete thought," as we see later, is not a concept that is independently defined. Further, the recognition of the recursiveness of linguistic units renders

the attempt to match "complete units of thought" with sentences a hopeless task. Actually, Wingo's own careful work demonstrates that nonalphabetic marks in classical Latin do not follow a "system." But like much writing about early marking, it applies unexamined concepts and constructs from a much later age to an earlier world intellectually and technologically different, obscuring what the writers of these texts may have intended.

In what has come down to us in the work of the classical grammarians, there are no references to punctuation, and Townsend (1969)--whose work is later than Wingo's--believes this is because there in fact was no punctuation in classical texts (332). He proposes another explanation for the presence of these marks that does not view them in terms set by current ideology. He suggests that the signs found in some remains were "marked by rhetores and grammatici for teaching purposes" (331). They do not provide evidence for a system because they never passed into general use and, most significantly, contributed nothing to early medieval manuscripts. In the centuries that followed there is no marking practice that can be connected to any classical Latin marking. When later Latin grammarians, in the early Middle Ages, refer to "pointing," they are referring to something entirely different (Southern 1962).

2.2 Early Medieval Latin Practice

With the decline of Rome and the growing presence of the church, the only locations of writing for the next several hundred years, until the rise of the universities, were the monasteries. Even in the larger institutions that were able to support writing centers, writing was low on the scale of monastic life, and the task would fall into "second-rate hands and not being in especial repute be neglected" (Madan 1920,41). When central Roman control disappeared, the styles and conventions of the little writing that continued to be done became, like the languages, particular to each region. The lack of a standard was so pervasive that within a single manuscript even the shape of a letter might vary considerably.

Nevertheless the texts that have come down to us do resemble each other in having very little marking. The points between words disappeared and by the fourth century virtually all Latin texts are written in scripta continua, with occasionally "several letter spaces marking main pauses" (Clemoes 1952). There was no marking of phrases and only occasionally did an enlarged letter signal a section opening. In a few manuscripts a dot appeared sporadically, serving some purpose other than abbreviation, but the only thing that can be said about its distribution is that it usually did not come in the middle of a phrase.

Abbreviations began to increase, and although initially used on a small scale, there was apparently little restriction on what could be abbreviated: entire grammatical words, parts of lexical words, the beginning, middle or end of any word. There was one inviolable rule, however: abbreviations had to be indicated by some mark. Eventually dozens of different signs came to signal the shortening of a word, but in the early manuscripts a dot or double-dot (in appearance like our colon) are most common.

After 600, spaces between lexical words appeared occasionally, although they did not become customary until the tenth century. Perhaps the first sign that the inscriber of the manuscript is responding to something longer than a phonological segment was the occasional practice after 700 a.d. of writing the lines themselves per cola et commata, that is, devoting an entire line to one phrase, a colon or a comma. There was writing by cola et commata even when words were written continuously. "Line spacing" was the signal of a "pause" in reading, and since "pauses" do not come between every word, there was no space between them. Writing per cola et commata was rare, however, reserved for those elaborately prepared treasures such as the Lindisfarne Gospels, which, careful as it was, nevertheless had no other kind of marking. Most manuscripts were not elaborate, however; they were written in a

two-column page and normally each line in a column was filled to its margin, breaking in the middle of a syllable if necessary.

A comment here is necessary about the terms colon, comma and periodus. These were rhetorical terms, and though frequently used in the Middle Ages, varied enormously in their meaning (Southern 1962). The entities they referred to were either specifically a unit of length, or something otherwise unspecifiable. For example, the comma could be a "clause of less than eight syllables" (Thompson 1912,70) or "the shortest division of a rhetorical period" (Clemoes 1952,3). The colon could be a "clause of eight to seventeen syllables" or a "short period" or a "complete clause" (Thompson) or "a limb of a sentence intermediate between a comma and a periodus" (Clemoes). The period (periodus) was in all accounts "a complete thought." These terms were used in both Latin and Greek, although medieval Latin had an additional set of terms--subdistinctio, distinctio media, and distinctio--that were said to correspond to comma, colon, and periodus. Whether referring to syllables or to subdivisions, the measurement was length. Since the lengths measured a poetic line in classical literature, they naturally encompassed some phrase-based grouping of words, and they would thus automatically match one or another grammatical construction. But neither the classical

rhetoricians who developed these terms nor the medieval grammarians who continued to use them had in mind syntactic or grammatical constructions. The "textbooks" of the theoreticians who preceded Donatus and Priscian and those who followed them concentrated on morphology: "grammar" consisted mainly of word class and paradigm. A sentence (oratio) was the expression of a complete thought; it had no grammatical definition. There is virtually nothing pertaining to "sentence structure" as we use the term today in these works (Robins 1967).

We must keep these differences in mind when we talk about punctuation in medieval manuscripts. "Grammatical" punctuation is a matter of sentences and units within sentences; if the sentence is not perceived as a grammatical unit, then the punctuation is marking not grammar, but something else. The medieval scholars who prescribe pointing manuscripts according to comma, cola, et periodi, among them Cassiodorus around 550, Isidore around 600, and Alcuin around 800, are referring to what might be regarded today as rather squishy entities. Those who continue to believe that our current terms "comma" and "colon" derive from the unit of expression they were designed to set off (for example, Wright 1966) are misled. The "units" set off today by commas and colons are nothing like what they were in medieval parlance. Ong was overly optimistic when he

said: "It is hardly necessary to remark that 'sentences' or 'periods', 'commas' and the other paraphernalia of syntactical analyses were quite other things...to the ancients and to the medieval man" (Ong 1962,75); it is indeed necessary to provide that reminder.

Judging by the surviving manuscripts, the strictures of the medieval scholars were either unknown to most scribes or incapable of being followed. It is not hard to understand why the scribes could not observe the "rules." They were vague, extremely general, and contradictory; no two grammarians proposed the same practice, although they used the same terminology (Southern 1962, Rand 1929). Furthermore, any number of locations within a sentence could fulfill the advice of the authority being followed; it all depended on how one chose to "orate" the passage.

Cassiodorus is said to have based his work on Donatus, the fourth-century grammarian who describes a three-member system of marking in which the least important mark comes at a "breathing point where little of the sentence remains" and an intermediate stop "about midway in the sentence where breath could be taken" (Southern,xxxii). Here in the fourth century is the expression of a tradition of punctuation that permeated writing for centuries, shaping the discussion of all the unrelated forms of punctuation

that followed. Hundreds of years after the spread of printing, when the existence of a large population able to read silently fostered the development of much more standardized punctuation, a punctuation based in part on more abstract linguistic concepts, authorities were still writing treatises that talked about "pauses" and "breathing points" (Burrow 1787). Two centuries after that, an article so modern as to be about computers and grammatical categories continues to refer to pauses (O'Donnell 1966). The linguistic connections among pause, intonation contour, and grammatical constituent are extremely rich and complex and yields little agreement (see below, ch.4, n.5). Perhaps because intonation is composed of so many different features and comprises so many different shapes, which though perceptible are not easily distinguishable, distinct elements such as tonal contrasts, contour sequences, rhythmic patterns and many other factors have been through the centuries simplified into "pauses."

To return to the early Middle Ages, the shape and size of the page of writing were changing and different scripts were developing, and the use of line arrangements to structure the reading was abandoned even in manuscripts of great value. By the eighth century, some texts had an occasional "raised" dot (aligning not with the foot of the letter but with the middle) to "indicate any pause" (Clemoes

1952,11). That is, a point might be placed at the end of a paragraph, or rhetorical sentence, or clause, or perhaps before a specific conjunction, such as et or sed. There was no consistent pattern in the distribution of this mark, either across manuscripts or within a manuscript; similar or identical passages received different pointing even by the same scribe. Whatever was motivating the placement of the mark was not recoverable from the text. As often as not, there was no punctuation at all.

The changes initiated in Europe by the Carolingian educational reform at the end of the eighth century included the establishment of libraries, the production of manuscripts, and the devising of a legible and beautiful script (Migne 1863). Nevertheless, the "careful system of punctuation" that the European scribes "eventually learned" from the English scholar Alcuin, a disciple of Bede's, "consists in the use of a low dot for half-pauses and a high one for full pauses...commata and cola are not carefully distinguished; the distinction is between a half-pause and a whole pause" (Rand 1929,30). (As in most writing on early punctuation, no attempt is made to characterize "pause" or "half-pause".) Thus even an active attempt to encourage marking did not lead to anything that could be called a "system." Even at that, the practice soon disappeared, because the "fine distinction" between stops was "too

complicated," and scribes were often unable to decide which was appropriate; the "medial stop" became "an almost universal mark of punctuation" in this period (Southern 1962,xxxii). Nevertheless, in 27 tenth-century manuscripts prepared at Tours, Alcuin's European base, six different practices, including one of no punctuation at all, are described (Jones 1939).

For the next several generations most manuscripts continued to use the dot as the only mark of punctuation, although they began more and more to abandon total scripta continua and to separate major lexical items with a little space. The use of abbreviations increased, and an elaborate inventory of signs eventually developed to mark them (Hector 1958). Among them were the dot <.> and the double-dot <:> (and later the <;>), and because of these abbreviation signs many medieval manuscripts have the "look" of being punctuated when in fact they are not.

2.3 Later Medieval Latin Practice

At the end of the tenth century, a few manuscripts, especially in England, begin to have more elaborate pointing, consisting of three elements: a mark that looks like our semicolon <;>, a ticked dot <.ʹ>, and a <.> or <·>. The <;> is said to be the strongest mark, separating sometimes rhetorical "periods," sometimes clauses, more

often introducing a new topic or point of view and ignoring the grammatical sentence. The <.> is the "lightest" mark, often flanking a single word, but often also found at the end of a phrase or a clause. The <.'> is generally described as "midway" between the two other marks, but it also appears where either a <;> or a <.> might be expected (Southern 1962). These terms, "heavy," "light," and "midway," like "pause" and "half-pause" and even "quarter-pause," are, with few exceptions to be discussed below, not further defined. The myriad scholars who used them--Lowe 1914, Rand 1929, Jones 1939, Ker 1960, and so on--apparently felt that indicating relative values was adequate to convey their function, and they seemed to have assumed that the marks themselves array along some kind of continuum or arithmetic scale.

The new practices found in some Latin manuscripts in the tenth and especially eleventh centuries, and also in some early Anglo-Saxon writing, are not random, but they are not based on linguistic structure. Although their origin is not definite, one explanation has been proposed by Clemons (1952), whose work is the only serious attempt to determine the source of early medieval punctuation. According to him, they derive from a system of marking devised for the reading of the liturgy, and their source is in the churchly musical notation called "neums" that served to guide the different

melodic contours of Gregorian chanting. The neums themselves are said to be iconic, either mimicking the rise and fall of the voice directly or indirectly via the choirmaster's hand gestures (8). The neums were combined with the "points" recommended by the earlier medieval grammarians to comprise the positurae--four marks representing specific intonation patterns used in the recitation of various kinds of religious texts. The marks are as follows, their Latin names postdating the practice by at least a century (Harlow 1959, 2n):

< ; > later < . >	punctus versus	a falling cadence, hence the end of a <u>period</u>
< . ' > or < . ^ >	punctus elevatus (ticked dot)	a gradual fall and rise, said to be the contour of a <u>colon</u>
< . > or < ~ >	p. circumflexus	a shallow lowering of pitch, the end of <u>comma</u>
< . ~ >	p. interrogativus	the sharp final rise typical of some questions

(The heaviest mark < ; > eventually syncretized with the lightest mark < . >, so that an enlarged letter was a truer indication of the beginning of a rhetorical period.)

Since Gregorian chant was initially a kind of "speech-song" (Clemoes 1952,7), the cadences emerging from them were "allied to the natural inflections of the voice" (13). This meant that they easily matched the rhetorical

divisions of comma, colon, and periodus, no matter how elastic these "units" might be. And "since liturgical practice affected any kind of writing intended to be read aloud, and reading aloud was the normal practice both in public and private" (7), an "appropriate" system of punctuation had been "made available to literature" (13). What made it appropriate was that it matched the speaking voice--for literature was spoken. Furthermore, any marking that reflects intonation will also be "associated with other aspects of style" (14) and "particular grammatical constructions" (15). Therefore, we find that, stylistically, the position of the punctus elevatus can correspond to a "caesura dividing a sentence into two balanced members." We also find that, grammatically, its "rising inflection" is appropriate to "the pause [sic] between a subordinate and a main clause" and "between a relative and a main clause" (15).

Other similar matches with syntactic constructions can be made, thus giving rise to the mistaken notion that the marking was grammatical. In our syntactic age, contemporary writers on punctuation persist in searching for grammatical intentions in medieval punctuation, but Clemons understands that grammatical correlates are secondary, discernible only because of their connection to intonation. "To attempt to define medieval punctuation exactly in terms

of our own is only to create difficulties" (14n).

"Positurae indicated where the voice should rise and where it should drop: they had reference, as our modern punctuation has not, to the two tunes recognized as underlying all spoken language" (13). By "the two tunes" Clemons means, roughly: (1) the falling intonation of sentence finals, as in ordinary statements, wh-questions, and so on; and (2) a fall-rise, as in yes/no questions, "indefinite statements," and so on (see Crystal 1969 for extensive discussion of this view). In many manuscripts produced in England, some in Anglo-Saxon and more in Latin, especially in the twelfth century, the marks do set off intonation phrases, even if not the specific contours originally intended. There seem to be, however, just as many manuscripts that do not use this marking. Given the nature of the marking and the circumstances of manuscript production, this is not surprising. By the fifteenth century, the practice is no longer used in Latin; and it had much earlier disappeared from English.

The most elaborate marking practice of the Middle Ages was part of a script developed by the Beneventan monks in Italy that reached its height in the eleventh century, began to decline in the twelfth, and left no descendants. Its purpose was "a desire to facilitate correct reading at divine service and refectory" (Lowe 1914, 227). Initially, a

set of three marks, <.>, <.,>, and <;>, indicated, like all marking of the time, "inflection of the voice, so that a person reading aloud could see where the voice was to be raised and dropped" (229). Both the <.,> and the <;> indicated "main pause" as well (228). In later generations more marks were added, to indicate a distinctio finalis <.,.> or <;>, a distinctio media <.>, and a subdistinctio <.^>. This, like the practice described by Clemoes, also attempted to blend the rhetorical and the intonational, but the practice did not spread. A closer examination of the interrogative mark in this system may explain why.

Lowe does not doubt that the interrogative was a "reading" sign, always used to indicate "inflection of the phrase" (263). It marked, however, an intonation contour, not a grammatical construction (i.e., a "question" or a sentence), and had no fixed position. Most frequently it appeared on the syllable that received the highest pitch or the most stress, but it could fall elsewhere in the phrase that had the interrogative contour. Similar intonation shapes, however, also appear in noninterrogative sentences, and the so-called interrogative sign was used in such constructions too. The mark therefore indicated, not necessarily a question, but an unusual "curly" intonation; the determination of whether this intonation reflected an interrogative was not specified by the writing, but had to

be inferred by the reader.

Lowe's description of how this "interrogative" sign could be interpreted by later, less knowledgeable, scribes is instructive. Since it was a superscript above the word with rising intonation, a scribe who didn't understand the practice might move the "interrogative" mark from its superscript position to follow the word; he might, in addition, substitute a mark more familiar to him, not one restricted to that particular intonation. The resulting text could be something like "quid? mihi et tibi est." or "quid. mihi..." in both interrogatives and noninterrogatives. It is easy to understand why this mark soon disappeared, as it both lost its distinctive form and began to violate the only consistent constraint on any mark in a careful manuscript--not to interrupt a single contour.

In a description of the punctuation of a single Beneventan text of the mid-eleventh century, Wright (1966) says that a dot coming after a verb "indicates the end of a sentence," but the dot also "may occur at any point when the sense was felt to be complete" (36). Although he tries to establish twenty-five different grammatical usages for the Beneventan marks, he admits that "punctuation was not placed at junctures that appear to be syntactically indistinguishable from others where punctuation is used" (41). The Beneventan manuscripts were carefully prepared,

and this inconsistency may seem mysterious. But the explanation is clear when the marks are understood as guides to the oral reader, not as grammatical signals. The intonation of any phrase has a wide range of permissible variation, and the length of the break between phrases offers a tremendous latitude. If the marking is according to intonation, or a reading cue, its absence is not a violation of the system. But a relative clause is always a relative clause, and if it is "relative clauses" that are punctuated, then leaving out punctuation is a violation. The very meticulousness of the Beneventan manuscripts denies a grammatical foundation for the marking.

For the most part, manuscripts in the tenth, eleventh, and twelfth centuries were either unpunctuated or used only the dot and the ticked dot for what were considered "major and minor breaks." Some manuscripts separated profusely, others sparsely, and the mark that looks like the modern semicolon <;> is seen less and less. Eventually, it disappeared from manuscripts almost entirely, and when it returned it had very different properties.

Some writers, however, had control over the inscribing of their texts and considered the marking important to the proper reception of their work. Eadmer's twelfth-century Life of St. Anselm has been analyzed by one scholar who recognized that his usage would be a puzzle to

modern readers. Southern's bilingual edition (1962) provides some of the original marking (although he adds modern commas and semicolons), and his careful work supports the notion that medieval punctuation marks were vocal instructions.

"The tradition in which Eadmer wrote" was one in which "reading meant primarily public reading" and which in monastic communities "came near to chant" (xxxiv). "Eadmer's prose is melodious" and the "punctuation is designed to emphasize the melody" (xxx) and "paid more attention to the needs of the [oral] reader than to strict logic or grammar" (xxxi). His system consisted of three marks plus a question mark (which is not discussed). A midline point was "used both as a full-stop and as the most common mark of punctuation within the sentence" where there is a "rough equality between what goes before and after" (xxviii). The second most frequent mark is <.ʹ> (Southern avoids naming these marks) "indicating [that] the sentence is left in suspense and that a rise in pitch is required immediately before this mark" (xix). A third mark, rarely used, is "a weak form of <.ʹ>, used in places where Eadmer at an earlier date would probably have used a medial stop [midline dot] or none at all" (xxx). Essentially, this was a system of two marks, a dot and a ticked dot. Like Lowe, Southern understands the marks to be guides to the voice,

yet like Lowe, he tries to correlate the distribution of the marks with particular grammatical constructions and even with lexical items, but he is not much more successful. For example, he says that often there is a midline dot before the conjunctions et, ac, and atque, "whether [these words] are understood or expressed." There is a big difference in ~~whether a lexical item is present or not~~, especially in relation to punctuation, which is often an indication or replacement for a deleted lexical item.

The practice followed in the early Eadmer manuscripts, like all previous marking practices, soon disappeared, and by "1271 the system of the previous century had fallen into decay" (xxx1). Though Roger Bacon at about that time "described the marks of punctuation and their effect on the control of the voice in a way that Eadmer would have understood...the practice he recommends is diametrically opposed to that of Eadmer...and would have made nonsense of [his] intention" (xxx1).

For many centuries after Bacon's strictures, for reasons that are not yet clear, the use of appropriate pointing does not concern writers. Possibly once writing was, literally, out of the hands of the clergy, monastic or university, and began to be used for avowedly secular purposes, speed and economy were highly valued, and subtle training in "inflections of the voice" no longer feasible.

Writing became a means of carrying on government and commerce, and especially after the spread of printing, a mechanism for disseminating new knowledge. Though language continued to be seen as speech, the written forms of speech were losing much of their function as scripts for oral performance, and the marks deployed to control the voice lost whatever coherence they had possessed.

Chapter 3

EARLY ENGLISH WRITING

During the entire medieval period, the scribes were of course clergymen, and throughout Western Europe writing was in Latin. Very little was inscribed in the vernacular languages until well into the thirteenth century (Auerbach 1965,294). England, however, was an exception, and there was writing in Anglo-Saxon as early as the seventh century and continuing up until the conquest of England by the French Normans, by of course the same monks who wrote Latin. This writing included short "legal" documents such as wills, grants, and charters, as well as religious works of various kinds, histories, and poetry. There were no significant differences in marking in Latin and Old English, although when the vernacular was used the script was often different. Handwriting, alphabets, and marking varied mainly with locality (Galbraith 1958)--which is what has enabled paleographers to date and place ancient manuscripts--and they reflected visual concerns, not linguistic.

3.1 Old English Manuscripts

The research in Old English punctuation is not abundant. Standard reference works on medieval paleography, such as the series extending Thompson's encyclopedia (e.g., Wright's 1960 work on English vernacular hands), do not comment on the punctuation (certainly a mysterious omission). Studies on marking in specific works of literature are meager, and only a few texts are examined in depth. Furthermore, it is difficult to obtain the original marking of a wide range of texts for one's own inspection. Scholars such as Skeat and Krapp certainly knew what was in the manuscripts they so meticulously prepared, yet even in the best editions of Anglo-Saxon literature, where there is a great deal of excellent editorial apparatus, with very few exceptions the punctuation of the manuscript source is ignored. Many editors do not refer to it at all; others provide only the barest statement that "punctuation has been modernized."¹ Yet to call the punctuation found in the standard editions of Old English writing "modernized" is inaccurate--in fact, the punctuation is invariably created. The original has either no punctuation at all or it has marks that do not in any way match contemporary practice.

There is an additional difficulty in translating Old English writing into modern sentences--that is, in punctuating and capitalizing. Linguists from varying theoretical approaches agree that there is "no rigorous definition of the Old English sentence" (McCracken 1971, Mitchell 1980, Whittaker 1980). If it is a work of literary creation to make modern English sentences out of Old English, it is just as much a literary creation to construct the Old English "sentence." "The grammatical rigidities of modern punctuation, responsive to the analytic character of Modern English...tends to hinder the grasp of the syntax of the Old English poem which is responsive more to rhetorical than to grammatical structure...The punctuation adopted by the modern editor seems to the modern reader entirely unexceptional, but in fact it distorts the actual rhetorical structure" (Huppé 1970). It is therefore not surprising that different editors punctuate the same Old English texts differently, and Emerson (1926) has shown that this leads to entirely different responses by the reader. But oddly enough, even those critics who recognize the literary significance of the punctuation fail to provide the original marking of the passage under discussion, however meager it may have been.

It is instructive to examine briefly the Old English practices. Our concern is not with literary criticism, but to see the texts as further evidence that (a) English punctuation did not have a cumulative historical "development," and (b) in each of its early versions its purpose was to represent, more or less well, some aspect of the oral language.

Roughly, Old English writing can be divided into the period before the development of the "liturgical" practice described by Clemons and the period after. The division is not sharp, because the lack of marking of the earlier centuries persisted strongly throughout the Old English period. (There are surviving Anglo-Saxon documents dating from the early seventh and eighth centuries, but facsimiles of these are hard to obtain.) In the first entries of the Anglo-Saxon Chronicle--the Parker Chronicle (Flower and Smith 1941)--written in 891, there are no marks, except for numerals set off by midline dots, a usual practice because of the physical identity of letter and roman numeral. In a grant of land dated 904 (Thompson 1912), typical of most Old English manuscripts before the late 900's, there is no marking except a dot associated with the lengthy phrase dating the document. Other manuscripts before the eleventh century have either no marking or only the dot, in greater or lesser profusion. Examples of the latter are the Exeter

manuscript (Chambers et al. 1933), Alfred's translation of the Orosius (Campbell 1953), and some of the entries in the Anglo-Saxon Chronicle, where only ornamental marks decorate the ends of sections. More heavily marked are other entries in the Anglo-Saxon Chronicle, the Beowulf manuscript (Zupitsa 1882, Malone 1963), the Vercelli manuscript (Sisam 1976), and the somewhat later Junius manuscript (Gollancz 1927). With the exception of the Chronicle, none of the earliest literary manuscripts are autographs: they were not written down until long after they had been composed. At this period Old English poetry and prose can be treated together, since the poetry was not written in any way distinct from prose. Religious texts tend to be marked more heavily, literary works less so, and there is virtually no pointing in legal documents. The scribe usually wrote as many words on a line as he had room for; if he wrote small he could fit in more words. Apparently other aspects of the linguistic system could be ignored too. Two separate words would often be run together, while a single derived word would sometimes be separated by a space between the stem and the affix. Sometimes these instances can be ascribed to the needs of space or visual requirements, but frequently they cannot. The dot was the all-purpose mark, obviously differently intended by different scribes, but with few exceptions these purposes cannot be firmly established from their distribution in the texts.

In the entries in the Anglo-Saxon Chronicle for 962 and 963, there is a dot before every "and" (that is, the abbreviation for "and" <7>, which was rarely spelled out) and nowhere else. In the 983 entry, very short phrases are separated from each other, and as a result there are dots after every couple of words. For the years 891 and 1001, there is no marking at all. In the Parker Chronicle an occasional decorated <;> appears at the ends of entries or at sharp changes in topic, but there is no distinctive marking for grammatical or rhetorical sentences.

In literary works, such as the Exeter book, the Vercelli manuscript, and the Junius manuscript, the practices were no different. Most of the texts found in the Exeter book have no marking except for decorated dots and curves at the end of sections (Krapp 1936). In the Vercelli manuscript the profusion of points varies in different parts of the manuscript. "The only certain thing about all this punctuation is its extreme irregularity and frequent aimlessness" (Krapp 1932, xxxi), leading to the judgment that some of the pointing may be later additions and therefore serve different purposes (McCracken 1971). The Junius manuscript has dots at every half line.²

In the Beowulf manuscript, points often appear at line ends and sometimes at half-lines, but not systematically. Their frequency varies widely in different portions of the poem, and they are sometimes used as word separators. The manuscript was written by two scribes, and the first placed the points in the middle of the line, the second on the line.³

Even in this early period of Anglo-Saxon writing, although the dot is the general mark, very occasionally others are found. A double-dot <:> appears twice in all of Beowulf but no explanation for its presence at those places has been offered. In other manuscripts double-dots, alone or followed by a curved dash, or a sequence of such designs, sometimes mark the end of a poem or a section within a poem. In the Junius manuscript, a thin vertical bar appears at some line ends instead of the usual point (Thornley 1954).

The use of enlarged letters is more clearly developed in these manuscripts than are the nonalphabetic symbols. They should be classified separately from punctuation, however, for their origin as a variety of script and their exploitation for decorative value set them apart from the other marks. But they are commonly associated with pointing and deserve some mention here.

Large capitals, distinct not only in size but often in shape from small letters, were often used to begin sections. Small capitals, distinct mainly in shape, sometimes followed points, sometimes appeared in proper names, and sometimes showed up in connectives such as ac or swa and at the beginning of "short phrases" (Krapp 1932,xxv). The vast majority of "sentence" openings, by any definition of sentence, were not distinguished in any way. According to Krapp, "the best generalization that can be made is that capitalization in verse as well as prose...was intended...as a rhythmical guide to the reader, to tell him when to pause, when to lift his voice, when to emphasize a word...[rather than] a systematic logical or syntactical accompaniment of the text" (xxv).

Some of the motivation for the marks and spaces and large letters may have little to do with linguistic or literary purposes. They were often used then (as they are today) for visual esthetic purposes--"graphic" in the way typography is a graphic art today. The entire first written line of a work may be in a script different in shape and size from the body of the text, as in the opening of Beowulf or Exodus, and a proliferation of dots and curly dashes may close a text. In the late eleventh century, one scribe rejected the well-established customs of a particular composition and intentionally "reduced his pointing to a

minimum so as not to mar his beautifully written page with a salt and pepper of punctuation" (Willard 1950,15).

3.2 Later Anglo-Saxon Manuscripts

The earliest Old English manuscripts to show the punctuation described by Clemoes are the first texts of Aelfric's Catholic homilies, at the very end of the tenth century (Willard 1950, Clemoes 1952, Harlow 1959, Eliason and Clemoes 1966). Aside from Cyrus' work (1971) on spacing in Alfred's Orosius, these are the only Old English prose texts whose marking has been intensively studied. Willard (1950) found the "pointing more abundant...than in other Old English work" (1) and thoroughly examines several texts of the same homily, about five pages. Harlow (1959) worked on a group of homilies "very close to Aelfric's original draft" (2), presenting the variants of about sixty lines.

What is unusual about the ten manuscripts studied by Willard, all written within a hundred years of each other, is their relative similarity of punctuation. Nevertheless they differ to greater or lesser extent not only in the amount of marking but in the principles of placement. The four marks used are a point <.>, a point "with a comma beneath" <;> and a point with the "comma above" <.✓>, and an "interrogative curve" <.~> (essentially a point with a up-down-up curve above it), although not all four appear in

every manuscript. Willard avoids using the medieval Latin terms, but his use of our contemporary terminology encourages unjustified correlations. His analysis is basically like Lowe's and Clemons' and Southern's. "The comma in these combinations indicates whether the voice is rising or falling...the semicolon, with the point high and the comma low, designates a fall of the voice at a major pause," and the point with comma above "indicates a pause accompanied by a rising voice" (6). The "semicolon" is a "major stop" and "marks a sentence end" (6). Some manuscripts, however, "used the point...to mark the sentence end" (7), but no other use of the point is discussed. Willard finds "an intimate relationship between semicolon and capitalization as a means of distinguishing one sentence from the next" (6), but, typically, "sentence" is not further distinguished as a clause, or rhetorical period, or even "complete thought." Despite the inability to avoid using modern concepts, Willard concludes that these texts have a "remarkable fullness in punctuation" because "the manner in which [they are] to be read is important. The voice must aid the rhetoric and the pauses must be carefully marked so as to effect the proper impact of the thought on the hearer" (28). (Willard's detailed study has the rare virtue of supplying the variant markings, so an interested reader can pursue this avenue further.)

Harlow (1959) continues the close examination of the marking in the Aelfric homilies, although he does not discuss "sentence-division." He concludes, with Clemons and Willard, that the function of the marking was to guide oral delivery, but since he tries to establish more precise principles, he does a grammatical analysis, in order to correlate particular grammatical constructions with marking. Any possible grammatical match, however, collapses before other considerations. The "widespread variation" (5) he finds has an oratorical explanation: "so much variation in a text so close to the author is hardly scribal, and Aelfric may have varied his delivery intentionally" (14). In determining whether there is a consistent distinction between the point <.> and the elevatus <.ʒ>, he finds that "the point is always a possible alternative to the elevatus" but the latter "falls at a comparatively stronger break." However, it "may mark a contrast or parallel when the syntactically stronger break has [only] a point" (14), and "sometimes it is not possible to explain the use of the elevatus in any of the foregoing ways" except as "a way of warning the reader...not to finish prematurely." Thus the marks signal vocal variations, regardless of grammatical considerations. "Punctuation is not obligatory at grammatical divisions but tends to be found there when these are also natural divisions" (7). "The decision to punctuate depends also on other factors [such as] length of clause"

(9) or "the overall rhythm of the sentence--a purely rhetorical matter" (7); "the rhetorical point of balance often takes precedence over the logical structure" (11).

Harlow recognizes the relation of the marks to intonation contour, which he invokes as follows: "The basis of punctuation within the sentence is what might be called the natural divisions of speech...since they are the divisions used in spoken English today." Harlow, like Clemons' authority Armstrong and Ward, is assuming a universal intonation pattern that reflects "sense-units" (but see Trim 1959 on the difficulties of the "sense-group," consider the vocal variations rung by actors on any "sense-unit" in a play, and see especially Selkirk 1984). Harlow goes on to say that the basis for deciding a natural division is "elocutionary" (see Crystal 1969, Chomsky and Halle 1968, and the work of descriptive structuralists like Gleason 1965 where syntactic constructions and prosodic structure are considered a major source of "natural divisions"). It is not clear what specifically are "elocutionary factors," although vocal control and effect of speaking must be central. Harlow concludes that punctuation in Aelfric's early texts "must always indicate a pause" (16), even if it results in "very small units of delivery. But there is nothing out of the ordinary in this; they represent the small intonation units of deliberate or

emphatic speech" (17). Even the long stretches of unpunctuated text, different from the more heavily punctuated passages, are explained as being intended for an audience stationed close in, or for "intoning with formal cadences at the end of clauses" (18).

The heavily marked texts of Aelfric's homilies were not typical even of his own compositions. His non-homiletic work is more like the majority of Old English manuscripts of the eleventh and twelfth centuries, marked only by points. For Clemons, such a difference reinforces the liturgical channel for the new marks. More broadly, it reinforces the "performance" nature of the "reading scripts" and the role of punctuation as a guide to oral delivery.

3.3 Early Middle English Writings

After the Norman Conquest, the production of manuscripts in English almost vanished, and when English is again used in writing, it is a considerably different language. This investigation now deals with prose only, ignoring verse writings, since poetry was now written in verse lines, and the differing requirements of the two styles have major consequences for rhetoric, grammar, intonation, and therefore marking. At this point, examples of actual texts are appropriate.

3.3.1

We begin with an extract from the continuation of the Anglo-Saxon Chronicle known as the Peterborough Chronicle, written in 1155 although the entry refers to the year 1137. (The transcription below follows the line arrangement of the manuscript as facsimiled in Whitelock 1954.)

Hi diden heof in quarter
ne þar nadres 7 snakes 7 pades waeron inne. 7 drapen heof swa.
Sume hi diden in cruceþus þ is in an ceste þat was scort 7 nareu.
7 un dep. 7 dide scaerpe stanes þerinne. 7 þrengde þe man þær
inne. þ hi braecon alle þe limes. In mani of þe castles waeron lof
7 grif. þ waeron rachenteges þ two oðer thre men hadden onch to
baeron inne. þat was sua maced. þ is faestned to an beam. 7 diden an
scaerp iren abuton þa mannes throte 7 his hals. þ he ne myhte nowi
derwardes. ne sitten ne lien ne slepen. oc baeron al þ iren. Mani
þusen hi drapen mid hungaer. Ine canne ine mai tellen alle þe
wunder ne alle þe pines þ hi diden wreccemen on þis land. 7 þ laste
de þa .xix. wintre wile Stephne was king 7 aeure it was uerse 7
uurse. Hi laeiden gaeildes on þe tunes aeure u wile 7 clepeden it
tenserie. þa þe uureccemen ne hadden namore to gyuen. þa rae
ueden hi 7 brendon alle þe tunes. þ wel þu myhtes faren al a daeis
fare sculdest thu neure finden man intune sittende. ne land ti
led. þa was corn daere. 7 flec 7 caese 7 butere. for nan ne waes o þe land

(Bodleian Laud Misc. 636. f.84v)

They put them in quar
ters where adders & snakes & toads were in. & destroyed them so.
Some they put in a torturehouse that is in a chest that was short & narrow.
& not deep. & threw sharp stones there in. & thrust the man there
in. & they broke him all the limbs. In many of the castles were hateful
[things]. that were chains that two or three men had enough to
bear one. that was so made that is fastened to a beam. & they placed a
sharp iron about the man's throat & his neck. that he might not no
waywards. neither sit nor lie nor sleep. but bear all that iron. Many
thousand they destroyed with hunger. I cannot I may not tell all the
wounds nor all the pains that they did to the wretched men of this land. & that laste
d the 19 winters while Stephen was king & ever it was worse and
worse. They laid guilds on the towns often & called it
protection. when the wretched men had no more to give then they plun
dered & burned all the towns. that well you might go all a day's
journey you should never find man sitting in town. nor land ti
lled. then was corn dear. & flesh & cheese & butter. for no one was on the land

The all-purpose mark in the Peterborough Chronicles was the dot, as it was in English writing for a long time. The manuscript is not heavily marked but it is helpfully pointed, and a list of the grammatical contexts in which the dot is found could easily be made. For example, it frequently appears between compound verb phrases, although not always or even in most cases. The point occasionally separates a short adjectival or noun phrase, but not regularly. It often sets off a grammatical sentence, but it just as often sets off a phrase or dependent clause. Larger letters may begin a full sentence, but they also open a dependent clause that is grammatically part of the preceding sentence; on the other hand, many "full" sentences open with an ordinary small letter. A description along these lines, however interesting, does not provide an explanation; on the contrary it suggests that an explanation is not to be found in these categories of "sentence," "dependent clause," "verb phrase," "noun phrase"--that is, in the grammar.

Some authorities (Hall 1920,II,252) suggest that this entry was dictated to a scribe by an older monk. The source of this conclusion is of course not the marking, but the errors and elisions and insertions. The points may well reflect the word groupings of dictation, for they are good oral cues, varying the intensity and rhythm of the account of these pitiful events in a way that makes excellent

declamation, and never interrupting an intonational phrasal unit. However, other equally effective ways of delivering the text are imaginable, and the marks could be rearranged to reflect a different phrasing, just as reasonable as the actual arrangement, without violating any discernible "system" or "rule" or "habit." Regardless of how the text was produced, and even though the Chronicle was intended mainly as a record and not as a reading script, the marking reflects an easily recognized clutch of oral values.

Compared to the century before the Conquest, the twelfth and thirteenth centuries provide relatively few examples of prose writing in English; whatever was deemed worth recording was written in Latin or French. Nevertheless, by the first part of the thirteenth century, a change is seen in the marking of what English prose writing there is: an increase in the number of marks and their frequency. Some of the marks in use in Latin but vanished from English for over a hundred years are borrowed back into the vernacular writing. However, whatever values the old marks may have had did not descend into their thirteenth-century uses.

3.3.2

The next example is dated about eighty years after the last Chronicle entry, around 1230, and is from the Ancrene Riwe. The work, originally in French but quite well known in English, was composed to guide the religious and practical behavior of women who retire from worldly life. Several English manuscripts survive, three of them clustering around 1220-1230, a fourth dated later in the thirteenth century, and a fifth from the fifteenth century.

þvs mine leoue sustren iþe wilderness þer þe gaþ.
 in wið godes folc toward ierusalemes lond. þ is þe
 riche of heouene. beoð þulliche beastes • þulliche wurmes.
 ne nat ich na sunne þ ne mei beon ilead oðer to an of
 ham seouene. oðer to hare streones . vnsteað eluest bileau
 azein godes lare • nis hit te spece of prude inobedience.
 Herto falleþ sylgaldren • false teolunges • lefunge o swefne • o
 nore • 7 on alle wicchecreftes . Neomunge of husel in eani
 heued sunne • oðer ei oðer sacrement nis hit te spece of
 prude þ ich cleopede psuptio. zef me what hwuch sunne it is
 zef me hit nat nawt. enne is hit zemeles under acci
 die. þ ich slawle cleopede • þe ne warneþ o ðer of his uuel
 oðer of his bizete • nis hit slaw zemeles oðer attri on
 de.~

(MS Corpus Christi College, Cambridge, 402)

Thus mine dear sisters inthe wilderness where you go.
 in with god's folk toward Jerusalem's land that is the
 kingdom of heaven. are such beasts, such serpents
 I know no sin that may not be traced either to one of
 these seven. or to their offspring . unsteadfast belief
 in god's teaching is not that species of pride disobedience?
 Hereto fall enchantments. false practices. believing dreams. or
 lucky days. & all witchcrafts . Communion in a
 state of mortal sin. or any other sacrament is it not that species of
 pride that I called presumption. if one knows which sin it is
 if one does not know it. then is it carelessness under acci
 die. that I have called sloth. not warning another of his evil
 or of his advantage. is not this slothful carelessness or venomous en
 vy?

There are three marks used in this text, held to be the best of the manuscripts: the point floating low in the line, the ticked dot, and the question mark. The point, the most common mark, separates groupings of all kinds, from items in a list to full sentences. But not every full sentence ends with a dot. The ticked dot appears often between contrastive clauses, reminding us of its iconic use in chanted writings to show a rise in tone, but it also appears between items in a list separated by "or." Consistent values for each of these marks cannot be established. Ticked dots are found in contexts entirely similar to those of plain dots, although the former are less frequently used. The choice of one over the other would have to be explained, if at all, on an individual case basis, for there is no systematic difference. Even the question mark is not always used for questions, nor the ticked dot in "or" series.

3.3.3

Consider the following two examples. They are the same passage from two closely related manuscripts.

Ancre ne schal nawt forwurde scolmeistre • ne turnen
 ancre hus to childrene scole.

(Corpus f.114v)

ancre ne schal nout forwurden scolmeistre: ne turnen
 hire ancre hus to childrene scole.

(BM Cotton Nero A.xiv f.117v)

(an anchoress shall not become a schoolmistress, nor turn
 her anchoress' house into a children's school)

Here is another passage from the same two manuscripts:

I sumer ze habbeþ leaue bearuot gan 7 sitten 7
lihte scheos werien• Hosen wið ute vampeþ / ligge in hwa se likeþ

(Corpus, f.113v)

Ine sumer ze habbeþ leaue uorto gon and sitten baruot. and
hosen wið uten uaumpeþ. and ligge ine ham: hwo so likeþ

(Cotton Nero f.117r)

(In the summer you have leave to go or sit barefoot and
to wear light shoes [and] hose without feet [and] lie in who
so liketh)

The heaviness of the marking in these early manuscripts of Ancrene Riwe shows that the scribes considered it important; yet the marks are used interchangeably. The second example in each pair comes from a manuscript dated about the same time as the Corpus manuscript. In it appears very infrequently another mark where Corpus might have a point or a ticked dot (or nothing): it is the double-dot <:>, which does not appear in the Corpus manuscript at all and which was widely used as a sign of abbreviation for many centuries before and after the writing of this manuscript.

3.3.4

And finally, here is a portion of the longer passage in the Ancrene Rule transcribed above, from a manuscript dated much later in the century:

Thus mine leoue frend iþe wildernesse þat ge
gat in wid godes folc toward iērlmes londe þat is
þe riche of heouene, beod þulliche bestes þulliche wurmes.
Ne nat ich nan sunne þat ne mai beon ilad, oðer to an of
ham seoluen oðer to hare streones.

(MS Caius College, Cambridge, 234, 126-7)

3.3.5

The next text examined dates from over a century later, and it is an especially useful example. The Ayenbit of Inwit is one of the few prose autographs of the Middle English period. It was written down by its composer, Dan Michel of Northgate, who was translating from the French. Even though the translation may have been slavish and clumsy, we can expect that the punctuation carries out the author's original intentions, has an inherent relation to the language of the text (it is not a later rendering of an earlier language), and does not suffer from scribal error.

...Vor þe glotoun uor he makeþ to ^{gt} ssame
 huāne he makeþ his god, of ane zeche uol of dong | þet is of his wom-
 be þet he loveþ more þane god, And ine hī yleff and hi serueþ . God him
 hat ueste, þe wobe zayþ | þou ne sselt | ac et long | and a tyt . God him
 hat be þe morgen arise, þe wobe zayþ | þo ne sselt | ich am to volme
 behoveþ to slepe | the cherche nys non hare hy abytt me wel, And huā-
 ne he arist, he begynþ his matyns and his benes | and his orysones
 And zayþ A god huet ssolle we ete to day . huader me ssolle eny þing
 uynde þet by wop, ~

(MS Arundel 57, f.14b)

For the glutton makes to great shame
 when he makes his god, of a sack ful of dung | that is of his bel-
 ly that he loves more | than god, And believes in him and serves him. God has
 him fast, the belly says | you shall not | but eat long | and at ease. God has
 him arise in the morning, the belly says | you shall not | I am too full | it
 behooves me to sleep | the church is no hare he waits for me well. And
 when he arised, he begins his matins and his blessings | and his prayers.
 And says Ah god what shall we eat today. Whether I shall find anything
 that is worth?

This manuscript was completed in 1340, yet it is not very different from the Ancrene Riwe of a century earlier. The presence of a new mark, a short light vertical bar, has not really changed anything. The plain dot gives way to the bar in separating short stretches, but the range of that stretch is wide enough to cover an independent clause or just the conclusion of a comparison. The dot can be used to set off dialogue, but so does the bar. The ticked dot separates clauses whose meanings are in opposition to each other, but it also precedes a prepositional phrase. A question mark ends a question, but, as always, not always. The marks seem to be used somewhat indifferently, the closest thing to a regularity being the use of the plain dot

to set off what might be recognizable as a new "verse." The lack of any mark at all between two clear grammatical sentences--"the church is no hare he waits for me well"--reinforces the claim that grammatical units were still not motivating the marking.

NOTES

1. For example, the Early English Text Society volumes 152 (Warner 1917), 259 (Pope 1967), and 266 (Fowler 1972).

2. The term "half-line" for Old English poetry refers to a metrical unit, not a written one. It consists of a phrase of variable length but generally with two stressed syllables; a "line" consists of two half-lines sharing the same alliteration.

3. Stevick (1975) has analysed the spacing and other written elements of Old English manuscripts, in particular Beowulf, to show that they provide literary and linguistic information otherwise overlooked. He has found that the spacing between words is systematic, and suggests that the scribes were careful to have the visual arrangement of the poem reflect its aural presentation. A tenth-century text of Alfred's Orosius shows the same concern with spacing (Cyrus 1971), which is determined by what is termed the "accentual group"; thus grammatical items such as articles, prepositions, or negative particles that receive no stress are not spaced at all. Cyrus' work is unusual in that it explicitly connects syntax and prosody as complementary aspects of sentence structure. "Juncture, stress, and pitch identify the constituents of a construction and correlate to the construction as a whole" (109) thus accounting for the grammatical aspects of Old English punctuation. Ultimately, "normal speech," not word boundaries, "determine the relative size of the spaces in the manuscript" (107). According to Stevick, the Exeter, Vercelli, and Junius manuscripts do not show this "linguistically significant spacing" (xi).

Chapter 4

LATER MIDDLE ENGLISH WRITING

4.1 "Theories" of Early Punctuation

Practices in the use of punctuation did not change radically over the next three or four generations after 1340. Like the scripts themselves, marking followed a tradition hundreds of years old, the variations of which, however degraded, looked back to earlier customs rather than prefiguring new modes of communication. It is tempting to provide a list of marks that appeared during this long period and then suggest the variety of uses to which they were put (as many investigators do), but this is dangerous. It suggests that there was a "repertoire" from which scribes could choose, and this is not the case. There was a small number of signs that appeared in writing, and certainly some marks became very common, but within these bounds, each manuscript must be considered primarily in its own terms--this copy of this text by this scribe at this time and place--for there was no common system in use.

For many centuries it had been recognized that stretches of writing could be distinguished in some way: even the Domesday book had "section" marks and rubricated letters for names. Yet nineteenth- and early twentieth-century scholars generally considered the marking of medieval manuscripts erratic and ignored it in their otherwise careful editions of the texts.¹ Perhaps in reaction to this neglect, a very small number of scholars have re-examined the marking on the assumption that it served some purpose; if a scribe could write reasonably well, why would he not have some idea that his marks were performing useful work?

Nevertheless, the interpretation of these marks has not yet formed a field of study. One reason is that there are so few thorough investigations. Another difficulty lies in the terminology used to describe punctuation. In the few works that consider the marks seriously, there is no special vocabulary, the categories over which the descriptions range are borrowed from other disciplines, and each author seems to intend something different by the terms he uses. It has therefore been difficult for researchers to build upon each other's work. Compounding the difficulty are the unexamined assumptions about fundamental aspects of modern punctuation, particularly the failure to distinguish between obligatory punctuation and the vast area of optional punctuation, and

the unclear status of the written sentence. In sum, there are no clearcut theories of punctuation against which medievalists may test their ideas.

Even so, the research undertaken here has made it possible to distinguish in contemporary studies several "implicit theories" of medieval punctuation. Perhaps they are more properly called "approaches," but I call them "theories" because they assume a domain within which the marking practices are to be explained, though that domain may be unexpressed and vague. Part of what a theory does is to imply that the right domain has been identified within which to find the sources of the phenomena in question. About the phenomena to be explained, in the case of punctuation there is fortunately little room for disagreement.

4.1.1

These "theories" of medieval marking can be described as follows. There is (1) the "breathing" hypothesis, (2) the "pause" hypothesis, (3) the "cadence" hypothesis, (4) the "grammatical" hypothesis, and (5) the "expository" hypothesis. As they are used by the various investigators, these five terms are neither mutually exclusive of each other, nor are they especially clear.

The "breathing" hypothesis goes back to the oldest medieval manuscripts in Latin, and holds that the marks direct the reader where in the chain of reading to take a breath. Obviously, such a reader is an oral reader. This interpretation of the marks is not restricted to monastic scriptoria and chanted liturgical manuscripts, where it is no doubt valid, but persists as a way of understanding even early Renaissance texts (Ong 1944). The unusual advantage of this hypothesis is that it is immediately testable: any reader can try to breathe according to the marks he finds in the manuscript he is looking at. No sooner does he do so, however, than he realizes that it does not work: he can neither read properly nor breathe properly. (For example, try the extracts presented later in this chapter.)

The "pause" hypothesis is even more persistent. In early manuscripts, the marks were seen as indicating full pauses, half pauses, and even quarter pauses, or more generally "longer" pauses or "shorter" pauses--which makes sense for liturgical manuscripts designed to be chanted or sung in religious services. But the notion of pause was still extremely strong in seventeenth- and even eighteenth-century works on punctuation, and can frequently be found in college handbooks and style guides today. Obviously one can, at some punctuation marks, stop for dramatic effect, or to take a breath, hence the modern

currency of this notion. But once writing escaped from its liturgical function, it is difficult to imagine how the scribes as they wrote were to measure a pause as being longer or shorter--or, even more difficult, how a reader was in the very act of reading to usefully reconstruct a longer or shorter pause. It seems clear to modern linguists that what the term really referred to was not pause but the end of an intonation contour or phrase contour, a discontinuity in the intonation curve, which may or may not involve a pause. But pause is the term invariably used, and the scholars and grammarians who use it apparently did believe that there were systematic pauses of differing and measurable length, whose "quantitative time relationship" could be fixed (Fowler and Fowler 1931,229).

The "breathing" and "pause" hypotheses as they are usually invoked need concern us no further. However, another more illuminating approach shares with these two their basis in the oral reader. This view is that the marks did indeed indicate pauses, but that these pauses came at the end of certain intonational contours, and more specifically indicated when the voice was to be lowered, when raised, and when held in suspension. The marks therefore suggested a cadence or rhythm in the reading, which will be discussed in detail below.

Quite opposed to these "elocutionary" approaches are those that find in the marks a way of setting off structure or meaning. The first of these I call the "grammatical" approach, since the explanation of the marks is in terms of their relation to syntactic structures such as sentences, coordinate clauses, conditional clauses, adverbial phrases, and so on, and their meaning is seen as reflecting the grammar or "structure" of the language.

Related to the grammatical approach is that which finds the marks used to "make clear the meaning" of the text. This is sometimes termed the "logical" function of the marks, when the length of the passage is short; when longer stretches are involved, it is called the "expository" function. The term "structural" is sometimes used also to refer to this function, with the same lack of precision.

4.1.2

Using the terminology above has hampered progress in our understanding of punctuation because the consequences for the reader of these different "functions" of marking are not mutually exclusive, making it often impossible to decide what a particular mark in a particular position is doing. For example, does only a "logical" punctuation make the meaning clear? Doesn't an oratorical approach, dividing the passage into intonational phrases, also serve an

"expository" function and make the meaning clear? Doesn't marking that specifically suggests the final pitch of a phrase also clarify the relation between it and the next phrase? Doesn't marking that reflects syntactic division suggest intonational contour?

Still another problem is that, like "structural," such terms as "logical," "elocutionary," "expository," and "notional" are not used even in the few serious works on punctuation with any consistency. For example, "logical" is sometimes used in contrast to "rhetorical," while sometimes it means "rhetorical" in contrast to "elocutionary." Therefore many of these different explanations tend to cross-cut each other--they overlap but are not the same, nor are they in clear opposition (Fries 1925, Miller 1908,317).

It is the conclusion here, to be discussed later in greater detail, that punctuation can best be understood if its purposes are divided into three clearly specified categories: grammatical, prosodic, and "informational." This three-part categorization, systematically realized by modern punctuation, provides a better framework within which to analyze any kind of English punctuation. It also can be made quite precise in its application to actual practice. It does not matter that one or more of the categories may not be reflected in medieval marking. This is exactly what will help us to understand the differences between early and

later punctuation. Grammatical refers to the syntactic structure of the language; prosodic refers to its suprasegmental values; and informational (a new category proposed here explicitly to deal with the issue at hand) refers to the organization and interpretation of the message. We will return to these terms later, when systematic punctuation is discussed. At that point, a further analysis of the "informational" and "syntactic" values of punctuation will be presented. In addition, since the principles underlying the modern use of punctuation depend crucially on the notion of "sentence," the sentence in writing will be discussed. Without an accurate assessment of the status of the written sentence, both modern and medieval, efforts to understand punctuation are hobbled.

4.1.3

Most of the research dealing with Middle English punctuation has attempted to find grammatical or structural motives for the marking of the manuscripts, even if they are imperfectly followed. There apparently is an expectation of a continuous line of development from the early marks to modern punctuation, similar to what developed in the structure of English as the language itself changed from Middle English to modern, and glory comes to him who finds in fourteenth-century writing the seeds of our contemporary

system. At the very least, contemporary grammatical terminology is used to describe the distribution of the marks, implying the appropriateness of such terminology--even if there is then a retreat from a consistent grammatical interpretation and a recognition that the scribes' purpose was far from reflecting some subset of the grammar of the language. Syntactic categories like "sentence," "adverbial phrase," "coordinate clause," therefore have to be supplemented by less precise and nonsyntactic terms like "subordinate parts of the sentence," "paragraph," and "sense unit." The method is to list the punctuation signs and the various traditional grammatical constructions that precede or follow the mark, and then conclude that "a full stop is used when the conditional clause follows" (Pintelon 1940,68), or there is "an attempt...to build up complex grammatically independent sentences within each paragraph by means of raised dots and capitals" (Cawley 1937,122-3), or the wedge "marks off short units which are in the main grammatically independent sentences, and would be so punctuated today" (Price and Wilson 1955,136). Generally, however, the end analysis by these scholars of the function of the marks is something quite far from linguistic structure, for example, "to offer reliable guidance to an intelligent interpretation and easy reading of the text" (Pintelon 1940,68) or "make plain the meaning of the text" (Lucas 1971,22).

The scholarship of such editors is admirable, their intentions are worthwhile, and their results are often enlightening. But the assumptions shared by most of these analyses is that the scribal intentions of the earlier periods were the same as ours, that reading in the Middle Ages was the same activity as it is today, and that the medieval understanding of the nature of language was the same as ours.²

It is easy to understand why most studies reflect the concepts and categories of generations of traditional grammar study. To resist ascribing to earlier societies the kind of thinking that emerged only because of historical changes long after that earlier period is difficult. Our current thinking about language is so grammatically based, as is our understanding of modern punctuation--both of which come from our being a "writing" society--that it is hard to adjust our perspective to a world where written language was still not common currency. In addition, medieval scholars are generally not trained in modern linguistic methodologies. A major flaw that vitiates their conclusions is that they do not include in their descriptions all the many instances where the grammatical construction identified as motivating the presence of a mark in fact fails to show that mark. These "counter-examples" are neither counted in, nor accounted for, and there seems to be no awareness that

the inconsistency revealed by the lists of "syntactic" marking denies their grammatical framework.

4.1.4

But there are marks in many medieval manuscripts, and their very presence requires us to find a reason for them. Moreover, an explanation other than one that reflects centuries of grammatical study is available. It is consonant with the recognition that--in circumstances where written language was so scarce--writing was not, as it is today, a means of realizing language in a visual rather than an oral mode. The scribe as he wrote, or a corrector as he went over a manuscript, saw himself as dealing with spoken language being committed to visual symbols. Language was speech, and the function of writing was to capture speech as best it could. The view that language was realizable either in speech or in writing had to wait until there emerged a large class of "readers" who got their language directly from the written word, who became accustomed to acquiring linguistic information visually. And this did not develop until after the printing press created the mass availability and distribution of written materials.

In one study that does not impose a contemporary perspective on the medieval view of language (Morgan 1952), the analysis of the function of the marks is based on the

general acceptance by Middle English writers of the importance of cadence in literary composition. Morgan's study is in line with Clemons' hypothesis about the origins of the marks (although apparently they were not aware of each other's work). As is well known, in the medieval world rhetorical study included the ars dictamenis [prose literary composition] with its especial focus on the Latin cursus, a syllable-counting system. These terms are elements in a whole field of study, but for our purpose it is enough to recognize that in composing prose as well as poetry, attention was paid to the stress patterns of specific portions of an expression. Cadence refers to the rhythmic pattern realized by a phrase, to the "balance of word groups," generally based on the arrangement of stressed and unstressed syllables within a certain length of utterance. The length was of course not arbitrary but associated with the intonation contours of clauses or phrases. The rhythm pattern was especially dependent on the termination of the utterance, and in fact, there is a category clausula that refers to the concluding syllables of a phrase, designating an important domain within which stress patterns were manipulated. Morgan was able to show that "Most textbooks of dictamen associate cadence with punctuation, so emphasizing the division of the period into smaller units and drawing particular attention to the ends of those units" (160).

This explanation has the great virtue of being referred to by the medieval writers themselves. In contrast, no scholar who has attributed "structural" intentions to medieval vernacular marking has been able to provide a single document in which a Middle English writer indicates that his choice of mark is dictated by grammatical considerations; that is, there are no references in the vernacular to a relation between marking and syntax. (The references to "grammar" in the Middle Ages and even in the early Renaissance mean simply the Latin language.) There are, however, references to "cadence" in writing, by Lydgate, Chaucer, Gower, Wyntoun, and others (Morgan 1951,156-7). The most telling citation that Morgan presents is the following:

Men schal fynden lihtliche þis tretys in Cadence.
After þe bigynninge. zif hit beo riht poynted: &
Rhymed in sum stude.

Men shall find lightly this treatise in Cadence.
After the beginning. if it be right pointed: and
Rhymed in some study.

This passage from the fifteenth-century A Talkyng of the Love of God specifically associates cadence with pointing. That cadence was significant in prose works as well as poetry is attested to by the reference to a text "prosed in feyre cadence" (157).

The references to "pointing" are apparently very scarce in medieval literature, for no other researcher in marking has quoted any. But there is one additional bit of evidence that connects medieval marking with oral reading. It comes from the first English-Latin dictionary, written about 1440, Promptorum Parvulorum, which includes this entry (given in its entirety): "Poyntyng or pawsinge in redyng punctuacio." That is, the Latin "punctuacio" is to be translated as "pointing or pausing in reading." It is noteworthy that the written form of this entry has no pointing. It is even more noteworthy that the activity referred to is reading (oral) and not writing.³

Morgan's analysis in general makes it clear that "prose texts" in English as well as Latin were concerned with cadence. In her discussion of The Talkyng she says:

If we read aloud...suspending the voice at a point, slightly raising the pitch and so emphasizing the pause where the inverted semicolon occurs, and lowering the voice when the point is reinforced by the small double virgula or followed by (capitulum), then the result is perfectly satisfactory. The comma is placed above the point to warn the reader that the sense unit or word pattern is not complete, although it might appear so....Consideration of the paragraph sign...draws our attention in another direction. It is found most commonly at the ends of sentences, and there is little reason to doubt that it was meant to indicate a "rest." When, as occasionally, it appears within long sentences, it marks an appropriate place to pause for breath" (162).⁴

Like most of the scholars who have examined medieval punctuation, Morgan recognizes that "syntax and oral delivery will naturally correspond to some extent" (161). In fact, it is this controversial connection between intonation, syntactic structure, and meaning that has misled even the most careful scholars.⁵ Where she differs from them is that she does not force a syntactic explanation on recalcitrant data.

4.1.5

One other analysis of medieval punctuation, Zeeman's (1956) work on one manuscript of Love's "Mirroure," concludes that it was "pointed most carefully" to specify the oral delivery (11).⁶ Her study finds that in this manuscript the marks were used to "direct the lowering or raising of the voice" in order to enhance the "emotional and rhythmic effect" of the text. Although Zeeman also makes the inevitable reference to "grammatical patterns," the analysis is firmly rooted in cadence, and her comments negate any grammatical function for the marks. It finds that the <.^v> "is used at a point where sense and rhythm demand the raising of the voice and a substantial pause" (15). The dot, as always, "occupies positions which would be taken, in our strictly grammatical usage, by the comma, the semicolon, and the full stop; it also occupies positions which we should leave unpunctuated...More important, it recognizes

the general rhythmical make-up of the passage, indicating, whether to those reading privately or to others, the brief pauses in sense and sound necessary for the achievement of total effect" (14). The so-called "paragraph" sign "marks a significant pause in the flow of the writing, when one idea or portion of narrative or argument has been completed, and some breathing space is needed, perhaps for thought on what has gone before, perhaps for anticipation of what is to come" (13). Typically, Zeeman calls the mark "the paragraph or sense-unit mark" even though she then says that "the units it defines are not always paragraphs by modern standards. They are units consisting of one or more sentences" (13); the true purpose of the mark becomes clear when "if the voice is lowered at the sign and a pause made before taking up the next words, the passages 'read aloud' sensibly and movingly" (13).

4.1.6

The problem that the studies by Clemons, Morgan, and Zeeman have run into, and perhaps why they have been neglected, is that their validity is seen to depend on the determination that these writings were primarily "scripts" for oral delivery, about which there has been much difference of opinion.⁷ As pervasive as reading aloud was, however, and even if these texts were so intended, it is not necessary actually to read them audibly to understand the

effect of the marks. This is the issue that has been either misunderstood or overlooked. A silent reading but one which "hears" the words in the mind easily demonstrates what the marks are doing. Even today, in reading difficult or ambiguous material, we mentally hear what we read in order to understand.

That such an oralized style of reading was usual in the manuscript era seems very likely. In general, it is a mistake to think of "reading" then as being the same activity we engage in today. Manuscripts were rare items and, given the difficulties of merely making out the words, reading them was neither easy nor common.⁸ Furthermore, the skills of literacy were extremely limited.⁹ Aside from their function as storage, as a record, it is hard to claim most English book manuscripts before the spread of printing as something other than a record of speech. To attribute contemporary reading fluency to the medieval reader, as many studies implicitly do, seems unfounded. There is far more justification to hold that reading was a slow, laborious activity of decoding difficult individual scripts, and that the reader went slowly, because he was doing something like sounding out the words in his head. This conclusion cannot be proved, of course, but there is no evidence that the function of writing at this time was anything other than to capture speech as best it could. On the contrary, the

evidence of the manuscripts themselves is that a careful scribe would mark the text into parsable intonational or cadenced phrases.

If we view the marks as subservient to the notion that language was speech, it becomes easy to explain their variety and inconsistency. On the one hand we are not forced to ignore countless counter-examples, nor on the other hand assume that the marking was mindless. Here a word has to be said about how well punctuation, or writing in general, can succeed in indicating oral speech, even when that is its intention. The answer is, not well at all. Even if there were a systematic way of marking speech, such a transcription would be counter-productive: the more phonetic information there is in a written transcription, the harder it is for an ordinarily competent reader to read it. It is also true that oral delivery of the same linguistic stretch can vary a great deal--in pitch, pause, stress, and all the other suprasegmental features--with little effect on semantic interpretation; this is not to say that differences in contour cannot reflect sharp differences in meaning, only that they don't have to, and that intonation and phrasing are gradient (Bolinger 1972). Any marking practice that does not interrupt a relatively low-level syntactic constituent, such as a noun and its preposition, can be made to serve the purposes of "oralizing" the writing.

4.2 "Book" Marking

Bearing in mind the alternate explanations of the distribution of the marks--roughly, cadence versus structure, or intonational versus syntactic--let us look at some texts from the last decades of the fourteenth century up to about 1470, the establishment of printing in England. These excerpts are presented chronologically to demonstrate further that there was no linked development in the history of punctuation, and that the concept of the orthographic sentence had not yet appeared.¹⁰

4.2.1

The first example is from a Wyclifite text of about 1380 to 1400. Two marks </> and <:> are used in fairly regular alternation, with a dot appearing occasionally:

In these three first commandments each man is taught : how he shall love god / and in these following he is taught : how he shall love his fellow christian / and what thing he shall do to them : and what he shall believe / the first of these seven: says in these words / worship thee thy father and thy mother : that thou be of long life upon earth . that thy lord god shall give to thee / for what man or woman shouldst thou worship . if thou shouldst not worship them that brought thee forth . and loved and helped thee . when thou shouldst not help thy self : ne thou mightst / saint augustine sayeth . that it is a brutish condition . a child to forget to worship and love his father and mother ./ three manner of fathers : we should worship / the first is father making of naught / the second is father gendering by kind / and the third is father of age : and especially of virtues / the principal father that we should worship . is almighty god that made us body and soul

(NYPL MS DeRicci 68,p.18)

4.2.2

A similar alternation of marking </> and <✓> is seen in a very different manuscript of another Wyclifite text, even though the ticked dot replaces the double-dot, and there are no other marks.

And thus sayeth paul / for what reason should I have
preached thus to you.✓ and ye should have hold this
lore / but for coming of this end.✓ And medeful
takyng of this witte.✓ is an other reason to praise
it / And sith it raiseth men souls.✓ and maketh them
thus stand in belief / paul telleth the third
reason.✓ why that men should praise this gospel /

(Trinity College, Cambr.B.4.20(1), f.9a)

In both examples above, the marking simply breaks up the text with little regard for distinctions of syntax, but great respect for rhythm and for phrases of reasonable length chunked together.¹¹

4.2.3

From approximately the same period, the following manuscript of a work by Hilton (Kurigawa 1967) is more heavily punctuated; i.e., a shorter phrase is perceived as the grouping to be marked off.

But I shall hope in god . asking of him my bodily
sustinance . only as me needeth without covetise . of
worship or of riches . And the salvation of my soul .
only by his mercy . Not setting mine hope only . in
mine own deserts . nor in prayer of man . But in
cleanness of conscience .

(Vernon MS Eng.Poet.a.1, f.339a)

The online dot is the main mark, with a ticked dot appearing much less often. In other portions of the manuscript, the editor finds that "Paragraph marks abound...but are apparently often used only for commas or stops" (Wallner, 1954, xxiii).

Of course, a "modern" punctuating of these three extracts would be entirely different from the original. It is worth noting that even a "rhythmic" marking could just as effectively select out different phrases. This particular flexibility is not available in modern punctuation.

4.2.4

To turn to a different kind of writing, an example of "scientific" rather than religious work, the Equatorie of the Planetis, written in 1392, is now thought to be a Chaucer autograph. The first page of this work contains the following lines, which, considering the author, I quote at length:

In the name of god piteous and merciabie said [text erased] the larger that thou makest this instrument/ the larger be thy chief dimensions/ the larger that be thy dimensions/ in them may be more small fractions/ and ever the more of small fractions the near the truth of thy conclusions/ take there fore a plate of metal or else a board that be smooth shave/ by level/ and even polished / of which when it is Round by compass/ the whole diameter shall contain .72. large inches or else .6. foot of measure/ the which Round board for it shall not warp nor

krook/ the edge of the circumference shall be bound with a plate of iron in manner of a cart wheel. / this board if thee liketh may be varnished or else glued with parchment for honestye / take then a circle of metal that be .2. inch of breadth/ and that the whole diameter within this circle shall contain the forsaid 68 inches/ or .5. foot and .8. inches/ and subtly let this circle be nailed up on the circumference of this board or else make this circle of glued parchment./ this circle will I call the limb of mine equator that was compounded the year of crist .1392. complete the last meridian of december / this limb shallthou divide in 4 quarters by .2. diametral lines in manner of the limb of a common astrolabe and look thy cross be true proved by geometrical conclusion/ take then a large compass that be true and set the fix point over the middle of the board on which middle shall be nailed a plate of metal Round / the whole diameter of this plate shall contain .16. inches large for in this plate shall be pierced all the centers of this equatory/ and also in process of time may this plate be turned a bout after that auges of planets be moved in the .9. sphere thus may thine instrument last perpetual.

(CUL Peterhouse MS 75,i,f.71v)

The editor of this text (in Wilson and Price 1955) made an effort to understand the punctuation, and he found in it some "midway" point between marking designed to provide "breath pauses of different lengths" and "a purely grammatical one which is intended to mark off the different parts of the sentence" (135). In this analysis he makes three assumptions not supported by the evidence: (a) that breath pauses of different lengths were in fact specified by the earlier marking, (b) that modern punctuation is purely grammatical, and (c) that there was a coherent "development" from one kind of marking to another. (These three assumptions summarize the standard view of punctuation held by most writers on the subject.) His observation that the

unusual triangular symbol Chaucer used (Price calls it a "wedge") marks off "grammatical sentences" (136) is not borne out even in the short text above. He recognizes, as did all the careful investigators, that "the position of a pause would, of course, often coincide in the two types of punctuation (grammatical and physiological)" (135), and that often no punctuation appears where it would have been expected, while on the other hand punctuation sometimes appears where it is not expected.

The diagonal is the most common mark, used, says Wilson, "to mark off subsidiary units, such as would today be marked off by a comma or a semicolon, and only occasionally would it be replaced in modern English by a stop" (136). This is as confusing as are most analyses that seek a grammatical basis for medieval markings. For one thing, in modern writing the semicolon can be replaced by the period far more often than by the comma. But more important, this "analysis" suggests that each of Chaucer's marks can be consistently correlated with a modern mark, and that modern punctuation would be necessary only where Chaucer has put marks. There is, however, no correspondence between the original marking and any possible modern editing. As the manuscript progresses, the wedges become less frequent, and the dots more so, but since no change in content or style is matched to these changes in marking, we

have to assume that they do not have different functions, even though Wilson says the dot is "used for the less important pause, or to mark off the subordinate parts of the sentence" (136). Of course Wilson's own modern rendering of the text ignores Chaucer's marking.

4.2.5

Given the unpretentiousness of the Equatorie manuscript, it is worth comparing it to a more elegant work by a professional scribe--the Ellesmere Canterbury Tales, about 1410. This is the Rescension commonly placed at the end of the collection:

Now pray I to them all that hearken this little
treatise or read that if there be any thing / in it
that liketh them / that there of they thank our lord
ihesu crist /. of whom procedeth all wit and all
goodness . and if there be any thing that displease
them . I pray them also that they arrest it to the
default of my uncunning and not to my will . that
would full fain have said better / if I had had
cunning . for our book sayeth / all that is written /
is written for our doctrine . and that is my
intent ¶ Wherefore / I beseech you meekly for the
mercy of god / that you pray for me / that crist have
mercy on me and forgive me my guilts . and namely of
my translations and enditings of worldly vanities /
the which I revoke in my retractions ¶ As is the book
of Troilus ¶ The book also of fame ¶ The book of the
.xxv.ladies ¶ The book of the Duchess ¶ The book of
saint valentines day of the parliament of birds . ¶ The
tales of Canterbury / theilk that sow in to sin ¶ The
book of the lion and many another book / if they were
in my remembrance / and many a song and many a
lecherous lay . that crist for his great mercy
forgive me the sin ¶ But of the translations of Boece
de consolacione / and other books of legends of
saints / and Homilies / and morality / and devotion /
that thank I our lord ihesu crist / and his blissful

mother / and all the saints of heaven / beseeching
them / that they from hence forth un to my lifes end
/ send me grace / to bewail my guilts / and to study
to the salvation of my soul / and grant me grace of
true penitence / confession and satisfaction to do in
this present life / through the benign grace / of him
that is king / of kings / and priest / over all our
priests / that bought us with the precious blood of
his heart / so that I may be one of them at the day
of doom that shall be saved.~ Qui cum patre & c

(Huntington Libr. El.26.c.9)

Chaucer's homespun wedge has given way to the professional's "capitulum," which here serves almost like display typography--it marks the list of Chaucer's works, and it also marks the two sections that begin with formulaic expressions. It does not in all instances signal the beginning of a new sentence. If the marking found here is followed, the entire first paragraph yields up five sentences to match the manuscript pointing. Modern renderings of this passage have of course many more than five sentences, some texts using periods, some semicolons. There is also the light diagonal, which in the first few lines generally alternates with the dot. As in Equatorie, dot and diagonal can appear together, but here neither grammatically nor rhetorically do they mark a division any deeper than each mark alone. Toward the end of the page, the dot disappears entirely, leaving the work of setting the rhythm of the reading entirely to the diagonals.¹²

4.2.6

In his edition of Chaucer's Astrolabe, the various manuscripts of which use quite different marking, Pintelon (1940) describes the marks found, gives some notion of their frequency, and attempts in a general way to associate in one of the manuscripts certain kinds of syntactic constructions with certain marks. The usual neutralization takes over, undermining the very premise of the association of mark to syntax. Clemons accepts Pintelon's descriptions but rejects the syntactic explanations, and specifically suggests that the presence of a ticked dot in instances "in which a conditional clause precedes a main clause" and the use of a plain dot "when the main clause comes first" are rather relating "the punctuation to the intonation" (1952, 19n); the ticked dot signals not a grammatical construction but a rise in pitch at the end of a clause that is not sentence-final. Most of the Astrolabe manuscripts use only the diagonal and the dot, in addition to the unit-sign. The following examples are found in only one manuscript:

And when this is done.✓ consider the altitudes of them
both . for soothly the difference of the ilk
altitudes . is the declinatio of the ilk degree from
the equinoxial . And if so be that the ilk degree be
northward from the equinoxial .✓ than is declination
north . if it be southward .✓ than it is south .
(f.17-17a)

Understand well that as far is the head of Aries or
libra in the equinoxial from our horizon .✓ as is the
zenith from the pole arctic. & as high is the pole

arctic from the horizon .✓ as the equinoxial is far from the zenith. (f.18)

And all the signs from the head of libra unto the end of pisces .✓ be clept signs of the south from the equinoxial. (f.20b)

(MS 4862-69, Royal Libr. Brussels)

4.2.7

Cawley's careful paper (1937) on the marking in four versions of Trevisa's translation of Higden's Polychronicon rightfully complained that "little is known about medieval punctuation" (116) and warned against "the danger of applying modern nomenclature to medieval punctuation marks" (117n). But even so, because he finds some degree of reasonableness in at least one of the manuscripts, he does not resist applying a grammatical template to account for it. In a section called "Function of various stops," most of his descriptions are couched in grammatical terms, the ticked dot being found "after an introductory adverbial clause" and "after a clause which separates a simple noun subject from its predicate" (118). What these two constructions may share, however, is a subsequent break in pitch, not a syntactic form. He also says that "In none of the manuscripts is the punctuation an accidental or arbitrary part of the text. Each manuscript, however, is punctuated in a different way from the others" (122). But no reason is offered to account for the extensive

differences in marking.

The two texts presented here cannot be more than twenty years apart at most, and perhaps are much closer in time. The second example is contemporary with the Ellesmere Chaucer and the first some time earlier. Cawley finds the marking in the first extract "primitive," a pejorative term for Cawley because it is less modern, yet it is surely more "grammatical" than the second example.

also english men though they had from the beginning
three manner speech southern northern and middle
speech in the middle of the land as they come of
three manner people of germany! nonetheless by
commixing and melding first with danes and afterward
with normans in many the country language is
appeared and some useth strange waffling chittering
harring and garring grisbiting this appearing of the
birth tongue is by cause of two things one is for
children in school against the usage and manner forto
leave their own language and forto construe their
lessons and their things a french. and have since
that the Normans come first into England.

(BM Cotton MS Tib.D.vii,f.51a)

Also englishmen though they hadde from the beginnige
three manner speech . Southern northern and middle
speech in the middle of the land as they come of
three manner people of Germania. nonetheless by
commixion and melling first with danes and afterward
with Normans in many the country language is appeared
and some useth strange wlaffring chittering harring
and garring grisbiting this appearing of the birth
tongue is by cause of two things one is for children
in school against the usage and manner of all other
nations be compelled forto leave their own language
and forto construe their lessons and their things in
french and they have since the Normans come first
into England

(BM Add.MS 24194,f.76a)

4.2.8

Another text of the same period is Mandeville's Travels, like Trevisa and much other English prose a translation, this time from a French text originally composed about fifty years earlier than this writing, which is dated about 1410-20.

Now since I have told you before of the holy land . & of that country about . & of many ways for to go to that land . & to the mount Sinai . & of Babylon the more & the less . & to other place that i have spoken before . ✓ now is time if it like you for to tell you of the marches . & iles . & diverse beast . & of diverse folk beyond these marches . ✓ for in those countries beyond . ✓ be many diverse countries . & many great kingdoms . that be departed by the .iiij. floods that come from paradise . terrestrial . ✓ for Mesopotamie & the kingdom of Caldee . & Arabie . ✓ be between the .ii. Rivers of Tigris . & of Eufrates . ✓ And the kingdom of Mede . & of Persie . ✓ be between the rivers of Nile . & of Tigris . ✓ And the kingdom of Syrie where of i have spoken before . & Palestine . & Phenicie . be between Eufrates & sea Mediterrane .

(BM Cotton MS Titus C.xvi, f.60v)

The marking here is somewhat more consistent than in the previous texts seen. It consists of a dot, a ticked dot, and a unit sign. A dot is placed before every <&> and unit-sign, occasionally but not always before a "that"-clause or a prepositional phrase, and before a grammatically complete sentence. The ticked dot is found at the end of the long first "conditional" clause but most commonly between the subject and verb if the subject is one

of the "topics," i.e., a country. If the subject is "I" or "the folk" there is no ticked dot. The most interesting mark is the unit-sign. Used to introduce a new geographical topic, it organizes the text for the reader, in this case according to bodies of water. The oral aspects of the marking are not abandoned, however. If we follow the marks as we read along, or even slow down enough in a silent reading to "hear" the text in our heads, we find that they guide the intoning or the rhythm of the reading. The "unit"-sign easily signals another "beginning" or rise in tone. The dots before some of the "that"-clauses and prepositions also encourage a sharp change in pitch (there is no other explanation for their uneven distribution). The ticked dot after the names forces a juncture in the reading (oral or silent) before the information about them is presented.

4.2.9

The previous selection of texts has been presented because of the relatively heavy marking they contain. But this richness is not typical. Many medieval manuscripts were barely marked at all. Here is a different manuscript of the same work as the last one, Mandeville's Travels, with only a light diagonal that occasionally separates pronounced changes in voice or topic.

for babylonia where that the sultan dwelleth for to pass to the great babylonia are 40 days through desert and it is not under the subjection of the sultan but with in the lordship of the king of persia and it is holden of the great Khan of tartary the which is a great isle of Cathay and of many other countries and of a great part of India his land is neighbor and marched with prester jons land And he has so great lordship that knows never where his lordship endeth he is mightier with out comparison than the sultan of which great state and majesty I think to speak of afterward/ when I have come thereto.

(Bodleian MS e.Musaeo 116,f.15ra)

4.2.10

Many manuscripts of this period used only the dot to provide a break, at some phrasal group, in the stream of words. Take for example the following early fifteenth-century Rewle of Sustris Menouresses (Seton 1914):

for as much we purchasing the more willingly the increase of religion as by that thy containments of our lord had been increased . and thy health of souls . there of cometh to profit . And for that

with out doubt . Alisaunder pope our predecessor of
good work recording . condescending and inclined to
the supplications of our dear son in christ the noble
kings of france to all the hende maidens of jsu
christ this world forsaking and doing profession in
our monastery which is enfaired of so noble name of
the meekness of blessed mary

(Bodleian MS 585,f.48r)

4.2.11

The manuscript of Margery Kempe, not a translation as
is the text above, shows similar marking in that it deploys
dots, its only form of marking, inconsistently:

Ah lord maidens dancing now merrily in heaven . shall
not I do so . for because I am no maiden . lack of
maidenhead is to me great sorrow . me think I would
had been slain when I was taken from the fountain
stone that I should never have displeased you and
that should you blessed lord an had my maidenhead
without end .

(MS Col.W.E.I.Butler-Bowden, f.25)

4.2.12

A brief section from The Reule of Crysten Religioun
about 1450 has marking described by the editor Greet as
being "exceedingly erratic" (1927,xi), but clearly
"rhetorical, the points indicating pauses for breath or
emphasis. But sometimes one finds a point in the middle of
a phrase that is a rhetorical as well as a grammatical unit.
Perhaps the punctuation, like the capitalization, was to
some degree a matter of decoration."

The (third) principal point may be sped thus / It is open enough to our natural reason that. the first man which lived in this world and his successors and progeny from his days hither unto this present day know or might if they would have known by strength and light of their natural reason without any affirming or teaching made to them from thee god.✓ all what is taught from the beginning of this present book hither to . and all what shall be taught into the end of the (second) part except few places marked for faith /

(Morgan MS 519,f.163b)

4.2.13

It is also useful to examine a brief extract from a fifteenth-century manuscript of Ancrene Riwe, by now a very different work from the one two centuries earlier. It is undoubtedly manuscripts like this that dismayed the early editors of Middle English prose, although Baugh, the editor, says it is in a "good current hand" (1956,ix).

and we wretches cannot patiently suffer one .
unkynworde ./ little fire is soon blown out . with
a little winde . But great fire is increased by great
wind So that man has . but little . love to god and
to his fellow cristian.✓ A . little . word will soon
quench it / But neither death nor any other
tribulations saint paul . witnesses . romans 8 . may
depart a man from god . that is strong / in charity /

(MS Royal 8 C i,f.133)

Almost all the medieval marks appear in this manuscript, although it is written in its entirety as a solid block of text. There are the midline dot, the diagonal, the double diagonal, the dot with the diagonal,

the dot with the double diagonal, and the ticked dot, all of these marks used inconsistently. The dot may appear at any syntactic break--the end of a rhetorical sentence, the end of a clause, between phrases, separating words in a list, between subject and verb, between a noun and its determiner, between a verb and its object. The single diagonal is frequently found at the end of a grammatical sentence, with and without preceding point, with and without following capital. Many sentence boundaries are not marked by a diagonal. The double diagonal signals a slight shift of theme, or a theme taken up by a different example or justification. The capital also may appear at the beginning of a grammatical sentence, although of course many sentences do not begin with capitals. The ticked dot is infrequent, and it may separate a pair of clauses that are semantically opposite; but again, as always, there are more pairs of contrasts without the mark than with it. Notably absent is the unit-sign, the most clearly organizational mark in medieval writing, and the one which has its clearest descendent in modern writing, the paragraph.

4.3 Court Writing

In view of the amount of marking that could be found in medieval "book" writing, the practices of the other major category of writers, the Court scribes, is significant. In

the fourteenth and fifteenth centuries; government documents, legal writing, and record keeping of all kinds in English grew increasingly important (Clanchy 1979), and in fact the standardization of the English language at the end of the Middle Ages is laid in part to the hands of the Chancery clerks of this period (Fisher 1979). Yet while a standard of modern English was being established by the writing of the government secretaries, their concern with punctuation seems to have been minimal: a salient characteristic of official writing is its almost total lack of punctuation. "Formal documents carry less and less punctuation until the fifteenth century, when completely unpunctuated instruments begin to be common" (Hector 1958,44). In the rare instances where there are marks, "different stops are used interchangeably" with "the greatest looseness" and often appear "to be purely ornamental" (Johnson and Jenkinson 1927,99). To appreciate the true flavor of official writing, many pages should be read, but even the brief extract below is instructive. It is important to note that these documents were not always formulaic or couched in the Middle English version of bureaucratese. They included private letters, reports, and other discursive, almost "literary," material. The documents can be parsed because of the liberal use of lexical connectives such as "and" and "but" and "wherefore" and "whereby" to separate what would be modern sentences,

referential expressions such as "the which" and "both" to signal the beginning of a new syntactic construction, and a relatively uncomplicated concatenation of clauses in which the matrix clause is rarely interrupted, a characteristic more common in Middle English writing than in modern writing (Mueller). Often, however, there is no clue at all, and the modern reader simply has to reread because he has not realized that he has come to the beginning of a new sentence.

4.3.1

The following is a brief extract from a report to Henry VII that goes on for many pages with virtually no marking:

As to this article as to the age of the saide yonge Quyne hit ys 27 offe yeres olde and not mucche more and as to the stature of hir person we can not perfetely understonde nor knowe for comeunly when that we came unto hir presence hir Grace was sytteynge on a pelowe and other 2 tymes we sawe hir on hir foote goyng over thwarte a chambur that was not broode wher she came yn at a dore and came unto the Quyne hir moder beyng in the same chambur and satt adoune by hir at the whiche bothe the tymes she ware sclippers after the maner of the contrey in suche wyse that we cowde not come to any perfite knowliche ofthe heizght of the saide Quyne.

Ande as to the fetures of hir body of the saide yonge Quyne fur as mucche as at alltymes that we have seyne hir Grace ever she hadde a grete mantelle of clothe on hir in such wyse after the maner of that contrey that aman shall not lizghtely persayve anythyng except oonly the visage wherefore we cowde not bein certeyne of any suche fetures of hir body but as farre as that we can persayve and juge that she ys of

no highe stature but of a myddelle stature after owre
jeugement by the reasone of the heizghte of hir
slippers whereof we have seyne an ensampelle.

(Sanders 1865b, Plate LXVI, 1505)

4.4 Analysis

In literary writing of the Middle ages, the dot, the ticked or double-dot, the diagonal, the double diagonal, the topic-marker, the enlarged letter, and individual variations of these signs were all in use. But scribes apparently could not manipulate all of them coherently. Where they did, as in the fifteenth century Ancrene Riwe, or the XX version of Chaucer's Astrolabe, the results were disastrous. This is easy to understand. If there is a generally accepted system of punctuation, which a scribe learns as he learns to read and write, he can when he is fully skilled manipulate a number of signs performing a number of complicated or interdependent functions. But if the manuscripts that form the corpus of a scribe's own reading, in effect his scribal education, are each marked individually, there is no "system" for him to "learn." If he therefore has to establish his own practice, without the benefit of a tradition, it would be difficult to manipulate more than three or four signs, let alone with any consistency. (Nor is consistency needed, if the scribe is writing down oral language, and not reflecting linguistic

structure.) Thus, in the main only a few of the marks were deployed in any one manuscript. Some manuscripts used the dot almost exclusively, placed after fairly brief groupings of words; others used a dot only after longer phrases. Some manuscripts use a diagonal or a combination of dots and diagonals. Others used the dot, the ticked dot (or its equivalent the double-dot), and the diagonal. Many manuscripts also used some form of the unit sign. Most important, the marks were not used in the same way from one scribe to another, and even within a work the value of a mark could shift or overlap with another mark. Perhaps for this reason the Court writers avoided punctuation: if they were not clear about what they were doing, it was best not to do it at all. It is worth noting that with virtually no exceptions private individuals writing "personal" letters did not punctuate at all (Davis 1971, Gairdner 1904, Hanham 1975).

It is therefore fruitless to specify a general "function" for a mark. A summary implies a common system or shared standards among the writers of the time. We can now see why it is misleading to state, as Petti (1977) does in an otherwise excellent commentary, that "by the fifteenth century [the dot] was a major pause used on the line with rough equivalence to a full stop, but also did service as a type of comma until the early seventeenth century" (25) or

that the "functions [of the ticked dot] were gradually usurped by the virgula and the comma" (26), which simply do not reflect the facts as they appear in the manuscripts.

But we can make some general statements about the most frequently employed marks. There is the deictic quality of the unit-sign, whether pointing to a name or a new topic or a new section. There is the suspended intonation of the ticked dot, which explains why it is comparatively often found before a clause whose meaning is in contrast to the meaning of the main clause. There is the iconic value of the doubling of a sign at the end of a section. There is the all-purpose dot, used to separate phrases of all kinds and weights. And there is the capital letter, frequently a good clue to a new intonation pattern because of its appearance in connectives such as "and" and "for," which were themselves already the marker of a shift in rhythm.

There were no "paragraphs" in medieval writing. A line had to be filled to its end with writing, so that frequently portions of words and even syllables were carried over into the next line, as often without a mark as with. There was thus no spatial indication of what is today called a paragraph, and the term is as misleading when used for medieval writing as the term "full stop." The marks that did separate what today might be called paragraph-like

groupings of text--the capital, or the unit-sign, or the doubled mark--were also used for so many other purposes that the notion "paragraph" cannot be said to exist in late medieval writing. Cawley (1937) noted the inappropriateness of the traditional names and was the first to suggest calling the mark a "unit-sign" (117n), which, because more vague, is more accurate. If a modern edition arranges a Middle English prose work in paragraphs, it must consistently override the original signs, just as it consistently overrides other marking to create "sentences." The decorated or very enlarged letters that are found in most but not all manuscripts demarked something considerably bigger than the contemporary paragraph, what might be called a section or a chapter.

4.5 "Chronicle" Writing

The hypothesis has been stated here that when punctuation is used in medieval manuscripts it is an acknowledgment of the oral language. But there are some few examples in the very late medieval period--significantly enough after the appearance of the first printed books in Europe--of marking that is beginning to ignore oral language and pick out entities of a different kind. That entity, however, does not originate in a deeper layer of the structure of language, in its grammar, but on the contrary in a nonlinguistic source entirely, in the organization or presentation of information.

4.5.1

A good example of a written text organized according to items of information is the following extract from a manuscript written by its author (one of the extremely rare surviving autographs), Capgrave's Universal Chronicle, completed in 1463:

About the feast of st john baptist the same duke of manchester came again from france bringing with him truce for four years And consent of the french king that all scots where ever they dwelt should be brought onto the obedience of the king of england as they owe of right In the same time that the duke was in france died his wife dame constance daughter to peter king of spain a woman full blessed and devout Soon after died mary countess of derby And soon after that died queen anne buried at Westminster Also this year died dame isabel duchesse of york daughter to

king peter of spain And sir jon hakwood the noble knight most named in manhood and war In the month of august was it proclaimed throughout england that all irish men be at home in their own land in the feast of nativity of our lady in pain of losing their head It was proved by experience that there were come to england so many irish men that the irish country which belongs to the king of england was so voided from his dwellers that the wild irish were come in & had domination of all that country.

(Camb Univ Library MS Gg.4a.12. f.175)¹³

The main form of marking in this manuscript is by means of red shading of word-initial letters, indicated above by an underlined capital letter.¹⁴ This red shading accounts for over 90 percent of the marks in over two hundred large pages. It is significant that this marking is in a work whose purpose is to record "facts." That is, the Chronicle is neither a book of secular entertainment or religious instruction, nor a government document. Works of the first kind, designed to be read aloud, are generally "intonational" in their marking, even if poorly so, while works prepared as government documents have virtually no marking. The "Chronicle," intended as a sort of "literary record" falls in between, just the kind of work to reflect a weakened interest in suggesting oral speech and a new concern to distinguish other kinds of entities, whatever these may be. We have seen another manuscript, one of the Mandeville Travels, where the unit-sign outlines what is perceived as the main items in a geography. In that manuscript, however, unlike this one, the other marks

represent oral values. r

Lucas' own work when carefully analyzed demonstrates that Capgrave's marking cannot be grammatical, despite Lucas' conclusions. Nevertheless, the divisions marked by red shading do indeed look like sentences, even if imperfectly so. But these entities are not units of grammar, or even units of "structure"; they are distinct groupings of information which take their place, as Lucas recognizes, in the "hierarchical progression in how much importance is attached to the sense-unit that follows the sign" (19).¹⁵ "Importance" is not a grammatical unit, therefore the marking of "importance" is not a grammatical mark. It is proposed here that this grouping is most usefully seen as an "informational" grouping; it is necessary to avoid terms like "structural" or "logical" because they usually are meant to imply "grammatical" punctuation, and in fact it is an informational sequence, not a logical or structural one, that is picked out by Capgrave's rubricated initials. (The euphony in the contrast between "intonational," the earlier domain of marking, and "informational," an increasingly important category, is fortuitous.)

An unit of information, though itself not a syntactic concept, is necessarily embodied in some syntactic unit. The sequence of syntactic constructions that best incorporates an informational grouping in discourse is the orthographic sentence--that is, the clause and its "attachments"--prepositional phrases, tenseless verb phrases, and so on (about which more later). (Hence the power of the notion "complete thought" as the definition of the sentence even among contemporary grammarians.) The informational group most frequently picked out by Capgrave's marking is often coterminous with the syntactic construction of clause, or the "grammatical" construction of sentence. But Capgrave wasn't marking clauses or sentences--he was marking informational groups.

Consider also the "hierarchy" constructed by Capgrave's marks. Only one level, according to Lucas, is "lower" than the red shading, and it is signaled by the dot, which Lucas calls the only "primarily grammatical" sign in the manuscript. The dot accounts for less than 5 percent of the total marking, so it cannot be performing a grammatical function--as such it would have to be distributed far more widely throughout the text. The other marks pick out levels higher than the sentence. The lowest effective level in the organization of the manuscript is the red shading. If we are discussing levels of subordination in which the

"sentence" is the lowest, then the hierarchy cannot be linguistic; it must be organizational and topical.

4.5.2

It is possible to say that in Capgrave's Chronicle, which generally abandons the intonational function of the marks and concentrates on its informational divisions, we see an early form of the "sentence" in written English. This implies that such a "sentence" did not exist earlier, and in fact the marking of English manuscripts at least till the end of the fifteenth century does not reflect the concept of the written sentence. This entity, the orthographic sentence, is not to be conflated with the "grammatical sentence" of the linguists. It is a sequence of well-formed syntactic units--each incorporating a semantic or informational partial (an idea or some portion of an idea)--that the writer wants to group together because they seem to be about the same topic, or because he wants them viewed as being about the same topic. As such, it will be examined in the next chapter from a perspective that finds in it neither a "complete thought" nor a "grammatical unit."

NOTES

1. By far the majority of Early English Text Society editions neglect punctuation, sometimes with no more than the bare statement that "the punctuation is the editor's" (Hamelius 1919,vii); see also for example Munro 1910, Meech and Allen 1940, Seymour 1963, Blayney 1974, Hanham 1975, Millett 1982. Chambers and Daunt 1931 are laudably meticulous about the spelling of late Middle English writing but say bluntly: "We have disregarded the punctuation of the manuscripts, and have substituted our own" (10). Pollard 1903 provides a long apology for modernizing the spelling, but doesn't even mention the punctuation, which is also "modernized," i. e., invented.

2. Ong 1944 says that they are engaged in "the pernicious practice of reading history backwards, understanding phenomena in terms of what succeeded them instead of what preceded, and explaining in terms already at hand for us phenomena which are not reducible to these terms" (349). See also McLuhan 1962, Chator 1945, Cohen 1977, Clanchy 1979, Carpenter and McLuhan 1960 for extended discussions of this approach particularly as it applies to medieval studies.

3. A hundred years later, in 1539, the first recorded use of the term "punctuation" continues to refer to oral reading: "Your dyvnye service to be treateably song...with good pause and punctuation" (OED 1971, 2359).

4. Of another manuscript of A Talking, the pointing, as expected, is different; "the phrase units recognized are generally much longer...[and] the sparser pointing...is merely supplemental to the common sense of the reader, an aid to oral delivery" (163).

5. This is not surprising. Only recently has the extremely complicated relation among the phonological phrase, intonational unit, syntactic structure, and meaning begun to be explored. See Bolinger 1958, Chomsky and Halle 1968, Crystal 1969, Liberman and Sag 1974, Ladd 1978, Bolinger 1982 and Selkirk 1984. Intonation itself is differently defined by different researchers (Crystal 1975).

6. This manuscript is unusual. Many manuscripts of Love's "Mirroure" survive--at least 25, but the punctuation of only one other has been carefully described. Of that, Smith 1966 states "the punctuation is profuse and after nearly every natural pause of breath or of syntax the scribe has made a sign of a dot and a virgule" (104), that is, any intuitively perceived prosodic unit may receive a mark. See also Salter 1981.

7. See Clanchy 1979, Cohen 1977, Croll 1919, Croll 1929, Crosby 1937, Goody 1977, McLuhan 1962, Saenger 1982, Yates 1966.

8. In a much referred-to article on private ownership of books in the fourteenth and fifteenth centuries, Deanesley (1920) upholds "the extreme booklessness of the population as a whole" (23), and Elton (1969) states that "Information on what books are known to have been around and therefore within the reader's reach is hard to come by and thoroughly

unreliable" (194). See also Bennett 1968, Birchenough 1937, Lester 1985, and Matthews 1968 on the scarcity of books; Emden 1958, Root 1913, Savage 1912, and Thompson 1963 for information on medieval books and libraries; and Brown 1966 for the problems of interpreting the manuscripts. About the physical difficulty of reading, the inherent illegibility of handwriting coupled with the variety of hands and styles, along with the unarguable lack of frequency of this activity, make it quite noncomparable to the act of reading today.

9. A number of writers have concerned themselves with the extent and quality of literacy during the Middle Ages. See especially Ackerman 1966, Adamson 1930, Bauml 1980, Burrow 1982, Coleman 1981, Parkes 1973, and Stock 1983 on the development of writing, reading, "literacy," and "middle class." See Elton 1969, who warns about the lack of evidence for "even remotely satisfactory answers to all the questions which modern historians, moved by modern interests in demography and sociology, would like to ask" (242), and Schofield 1977 for the difficulty of determining for periods before the nineteenth century exactly what is meant by the term "literacy"---just what is the level of literacy described by the available evidence. Renwick and Orton 1966, Dobree 1940, and Sisam 1931 also address this question. For the difficult problem of the level of education, see Haskins 1965, Miner 1962-3, Orme 1973, Rashdall 1942, and Wieruszowski 1966.

10. In every instance either the manuscript or a facsimile has been examined, since transcriptions are not always reliable. Facsimiles themselves can obscure such things as later additions, which were extremely common since however else the manuscripts may have been used, they certainly were read aloud from, but the extracts here are claimed to be free of such additions. The selections given here cannot be said to range over the whole of English prose writing of that period, but that range has indeed been inspected and the texts chosen provide as representative a group as possible, given such widely varying practices. Wherever possible, the rare extant autographs have been chosen, since they provide the closest match between the author's intention and his practice. Modern spelling is used to make the marking more perspicuous, even though this means losing the "feel" of the original and obscuring the extensive abbreviations.

11. See Warner's (1980,98) inconclusive count of marking associated with selected clause types in one particular manuscript.

12. The consequences of misinterpreting the use of the marks can be critical for the literary scholar (Sanders 1972 and Heyworth 1981). This long-delayed acknowledgment that the marking has to be reviewed underscores their previous neglect. For the lack of punctuation in the many copies of the Canterbury Tales, see Manly and Rickert 1940. (Misinterpretation of later Middle English writing is hard to avoid, even when punctuation is not at issue. Gower's apology for his French had been taken to mean that he spoke mainly English, but Fisher 1979 says that Gower apologized because his French was not the newly emerged standard French of the University of Paris.)

13. Lucas's analysis of Capgrave's marking is, in 1971, "the first detailed study of a Middle English author's own prose" (22). His data form the basis for the following analysis. It is revealing that Lucas' study does not mention the fact that printing had by that time been known on the Continent for a couple of decades. For another analysis of an even later "post-printing" manuscript that, like Lucas, does not allude to that extraordinary development the mass-produced book, see Arakelian's 1975 analysis of The Warwick Pageant of about 1490 (Dillon and Hope 1914), by which time Caxton had been printing in London for over fifteen years; Arakelian's study does not mention Lucas' work either.

14. Lucas (1971) is exceptionally thorough, although the lengthy evaluation it deserves cannot be done here. It includes a general framework of his own devising (that is unfortunately murky) as well as an exhaustive description of the marks found in this long manuscript, and reveals some familiarity with the few previous attempts at analyzing medieval punctuation and with some modern linguistic thinking. Lucas found that Capgrave used five different signs totaling almost 4300 tokens. There were almost 3900 instances of red-shaded initial letters; 234 instances of two kinds of "section markers," 96 dots, and 47 diagonals, most of these marks added in a different color after the text was written. According to Lucas, the only mark that "functions primarily at the grammatical level" (19), that level otherwise defined as "separating sense-units from each other" (16), is the dot, "marking mainly sentence-ends, sentence structure and clause structure" (17), appearing before "adverbial clauses," "relative clauses," and so on. The very numbers tell the story. The 280 section

markers and diagonals "function primarily at the notional level," since they occur "at an important point in the text, at the beginning of a section, and [look] forward to a new structurally independent sense-unit or group of sense-units" (6). "Notional level" is defined as associating "structurally independent sense-units" (3). The red shading of the first letter of a word functions at both the notional and grammatical level, because a "large proportion [of them] mark the beginning of a sentence and it is difficult to decide categorically whether this use should be classified as grammatical or notional" (17). Judging that "theorizing about the definition of an English sentence is any man's sport" (12), Lucas finds no "objective means of distinguishing clauses from sentences in Capgrave's Chronicle" (13). So both "sentences" and "co-ordinate" clauses are grouped together to account for 3600 instances of red-shaded initials. Red-shaded initials are also used sometimes to separate enumerations, parts of clauses, and occasionally a prepositional phrase. Lucas' intent is to show Capgrave's place in what he explains as the "gradual process of re-drawing the boundary-line in favour of structural and expository [punctuation] at the expense of elocutionary territory" (24). There is, however, no specific of Capgrave's practice that can be seen to have consequences in modern punctuation.

15. Despite the immense care Lucas takes to define his terms, he has not escaped the worst traps. "Sense-unit" is taken here in Lucas, as in almost all work on medieval punctuation, as self-evident--which it is, as long as no definition is attempted. It is apparently for all writers a "structurally independent" utterance. In Capgrave, however, we find that

"the chronological unit of a century was understood as a sense-unit" (6), as was "the chronological unit of a year in a king's reign" (6). That is, the passage that chronicles the events during this time period constitutes a "sense-unit." The full "paragraph-mark" which precedes these units, however, also precedes the descriptions of Christ's disciples, but so does also the "lesser paragraph-marker," which is also a sense unit. A diagonal may appear at the beginning of the chronicling of a century, but now the chronological "unit of a century was felt [by Capgrave] to coincide less and less with a notional sense-unit" (9). Even ignoring the inconsistency in this argument, and allowing that Capgrave's marking itself may show some consistency, the Chronicle cannot be regarded as a forerunner of modern punctuation practice.

Chapter 5

AN APPROACH TO CONTEMPORARY PUNCTUATION

A knowledge of the facts of early marking practices in English, and especially an understanding of their sources, cannot fail to have a positive effect on linguistic approaches to contemporary punctuation. Even though synchronic and diachronic analyses are of course distinct, linguists recognize that serious synchronic analyses are not likely to be successful if their hypotheses are formulated in total ignorance of the true state of affairs historically. In that sense punctuation research is like lexical and orthographic research. Yet such an informed analysis of modern punctuation has never been undertaken, for the practices of the past were mainly unknown and generally misunderstood. It is in this light that the following chapter is presented, for I believe that the hypotheses it contains are made possible only by the research explicated in the previous chapters. It cannot be a full-fledged analysis of modern practice; rather, it is intended to initiate a dialogue of principled analyses of contemporary punctuation.

The approach that follows is unique in two ways. It does not emerge from a vacuum of ignorance or misinformation about practices through time, and it proposes an entirely new way of looking at the orthographic sentence, the entity within which punctuation must be explained. It is hoped that the avenues that can only be suggested here will open the way to more extensive and detailed study of an area in which the appropriate categories have not hitherto been made clear.

5.1 The Informational Grouping

The basic punctuation mark in writing today is that which marks off sentences--the full stop or period and its associated capital letter. The justification for this view is two-fold. First, only sentence-marking punctuation is obligatory in writing: large stretches of acceptable standard English are often written with no punctuation other than the sentence marker. Second, many other punctuation marks of English writing cannot be used appropriately unless the sentence is also marked.

Yet the present investigation of writing practices in early English manuscripts has shown that the "sentence" as an explicit and clearly marked entity did not exist anywhere in English writing at least up till 1500. Furthermore, the orthographic sentence as it has become conventionalized

today did not become so even in published texts for well over a century after the introduction of printing.¹ During the manuscript era, which in some of its features extended well past the early use of printing, the orthographic sentence existed neither in practice nor, apparently, even in concept. The evidence for the former claim is in the manuscripts themselves; in the texts examined previously there is no punctuation intended specifically to mark off sentences. The evidence for the latter is that just as there were no written references to "pointing" except as a guide to manipulating the voice, the only use of the word "sentence" was to mean "opinion" or "judgment" (which of course in another sense it still means today). The first appearance in English of the word "sentence" to refer specifically to a grammatical entity is not recorded until the second half of the seventeenth century.²

This late development of the concept of "sentence" is not surprising, since contemporary notions of the written sentence are inextricably linked to contemporary notions of punctuation. Without a well-developed concept of punctuation it is hard to write "sentences." Medieval writers had no such concept, and because of this even the best of them often failed to write in "sentences." Though some of their writing can be punctuated as sentences, different editors will make different divisions, and

sometimes no parsing into sentences can be made. That scholars have implicitly recognized this state of the language in their work on leading English writers of the late Middle Ages is clear from the following statements.

Bennett (1947a) identifies the problem even though he misses the source: "Lydgate's sense of syntax was...uncertain...He has no rules to guide him in the construction of the sentences; indeed he often seems to start out with no clear idea of where his sentence will lead him" (144). Greet (1927) complains about Pecock: "A new sentence almost always means a new paragraph, for Pecock's sentence is a segmented thing that crawls over the page and often may be divided into self-sustaining units. It is annoying to find a whole section which is too loose to be transcribed as one sentence and too involved to be separated" (xi).³ And even the great Malory is taken to task for Morte Darthur: "The syntax is often, by modern standards, regrettably loose; but though many of the sentences would be hard to parse, their meaning is usually clear" (Myers and Hoffman, 1979, 151).

A final example of the interrelation of punctuation and sentence structure in medieval writing can be gleaned from Heyworth's (1981) call for a serious repunctuation of Chaucer. If, independent of the marking, the boundaries of the sentence were clear, there would be consensus about the

punctuation, and any good reader could "punctuate" Chaucer. Without a system of marking to draw on, however, Chaucer's writing requires scholarship to determine where his sentences begin and end, and even then there is often no single solution.

Despite the undoubtedly justified comments about Lydgate and Pecoock and Malory, surely English writers and scribes knew the "grammar" of their language--its rules and structures--and surely they wrote "grammatically." Yet they often did not write in "sentences." This apparent discrepancy--between being an accomplished writer of one's native language and often not writing in sentences--is troublesome only if it is assumed that the grammatical entity "sentence" is identical to the written and punctuated "sentence." But if it is recognized that the identification of the written sentence is not determined by the grammar but is instead crucially dependent on its punctuation, then it is not surprising that there were no "sentences" in medieval writing because there was no distinctive mark unmistakably reserved for them.

The confusion persists today, because of the common assumption that the orthographic sentence and the linguistic sentence are isomorphic. That is, if you are a native speaker and can read, you should be able to write in sentences. This assumption implies that "punctuating" is an

operation in language, not, as it actually is, an operation on a written text. This mistaken understanding also implicitly underlies most attempts to analyze contemporary punctuation practices. But there is a distinction between the linguistic units of the language and their deployment in a specific mode--in speaking, or in writing, or in using sign language, for example, and to neglect the differences can lead to misunderstanding the categories appropriate to the mode.

What further obscures our understanding of both early and modern punctuation practices is that the very notion of "sentence," upon which the punctuation marks are said to depend, is rarely examined.⁴ It is simply taken as given, and the marks of punctuation are explained in terms of the sentence. It is therefore helpful to examine the basic views of what a sentence is, if we are to understand how the category of "sentence" has been used to explain punctuation. Should it turn out that these definitions of the sentence do not work for writing, then a different approach is called for to understand the orthographic sentence and its punctuation.

Current analyses of the sentence fall into two major categories, one rooted in an earlier tradition but still strong; the other a reflection of twentieth-century linguistics. The traditional view is notional, and the many

different meaning-based treatments can be summarized as follows: a sentence is the expression of a complete thought. In contrast, the modern linguistic view is based on form: a sentence is a formal unit in the grammar of the language.

The difficulty with the notional approach is that it is circular. There is no independent way of identifying a "thought," whatever that thought may be, except as it is embodied in language. At the point where some aspect of mental activity receives linguistic expression, only the latter can be described as being "complete" or not. And the determination of whether a linguistic expression is complete or not is made on the basis of the rules of the grammar, not on conceptual wholeness. For example, all would agree that (1) is "a complete thought":

(1) John lost his umbrella at the movies.

But the following sentence is also "a complete thought":

(2) John lost his umbrella at the movies last night.

Like sentence (1), sentence (2) is described as "a" thought, not two thoughts. Yet it includes the thought of (1) unchanged, as it adds more "thinking." Furthermore, consider the rather complex sentences found in much academic or scientific writing, no further examples of which need be given here. Are such sentences, often consisting of dozens

of phrases, a single "complete thought"? Or would it be much easier to defend a position that says they are several "thoughts" combined by means of a well-conventionalized system?

Another aspect of the problem with the definition of sentence as a "complete thought" is that an "incomplete thought" would also have to be recognizable so that it could not be confused with a "complete thought." It is not clear what the signals of an "incomplete thought" would be. Sentence (3) is called "a complete thought"; sentence (4) therefore should be "incomplete," but it isn't:

(3) Please get the bag from the car

(4) Please get the bag

Aside from a subjective evaluation based on the hearer's confidence in his interpretation, the only clue to an incomplete thought is an incomplete sentence. But what makes a sentence incomplete is the grammatical structure of its constituent parts, not the structure of its "idea," nor even the structure of the "sentence," as in (5).

(5) Please get the bag from the

In (5) the "thought" cannot be less complete than in (4), since it incorporates (4), yet the sentence is incomplete. Thus we see that the only way a thought can be identified as

complete or incomplete is through the language that expresses it, which makes it a linguistic issue, not a matter of "thoughts."

More current grammatical definitions of the sentence avoid reference to either semantic factors or to subjective notions and depend on purely formal features. Of the grammatical definitions, there are two basic types. One type, based on a corpus, defines the sentence in relation to larger entities; the other kind is intended as a theoretical construct in a hypothesis about the structure of language. The first states that the sentence is that linguistic form which is not a constituent of any other formally or grammatically defined construction (Bloomfield 1933,170; Hockett 1958,199). That is, no specific grammatical device incorporates it into a larger grammatical structure. The second views the sentence as the minimal theoretical entity required to account for the formal syntactic relationships found to exist among the constituent syntactic units of a language.⁵ It is the entity which allows coherent statements about the lower-level constituents of the language, identifying a domain within which other units can be specified.

The identification of sentences grammatically is more successful than the notional or semantic identification. A large proportion of what competent writers do when they write does fit the descriptions of a good grammar constructed on these principles. This proportion reflects the areas where the "linguistic" sentence (as structurally described by the grammar) and the orthographic sentence overlap. But the overlap is not perfect, and therefore the two cannot be the same. Consider sentences like the following pairs:

- (6a) The analysts worked intensively on the problem and emerged with useful insights but they could not solve the basic dilemma.
- (6b) The analysts worked intensively on the problem and emerged with useful insights. But they could not solve the basic dilemma.
- (7a) The attention of the students was engaged by the perversity of the examples; the instructor had made his selection carefully.
- (7b) The attention of the students was engaged by the perversity of the examples. The instructor had made his selection carefully.

Similar examples could be multiplied endlessly.

Neither of the two types of grammatical definitions account for the fact that in (6a) and (7a) there is only one orthographic sentence, while (6b) and (7b) each consists of two sentences. The corpus-based statement about sentences, in the framework of descriptive linguistics, does not account for how longer sentences include as their

constituents linguistic stretches that are themselves sentences. The theoretical statement in the framework of generative grammar, in its provision for the recursion of the "S" node, does allow the formal representation of such sentences to be included as part of the grammar of the language. The grammatical mechanism can equally describe both the (a) sentences and the (b) sentences. But since punctuation marks are not included in the vocabulary of that grammar, it is hard to see how the grammatical mechanism distinguishes between acceptable sentences such as (6) and (7) and unacceptable writing such as (8):

- (8a) The driver salvaged what he could from the abandoned car the heavy rain had soaked through everything.
- (8b) The family ran from the room carrying their suitcases, the fragments of the shell were ricocheting off the walls.

Furthermore, the grammar that describes the sentences in (6) and (7) is also capable of describing an indefinitely long grammatical sentence. In fact, it is considered a virtue of the grammar to be so powerful. Yet indefinitely long sentences are not acceptable orthographic constructions. Though the unit "S" is fundamental in this grammar, the special characteristics of the written sentence are not within its domain.

The orthographic sentence, the acceptable stretch of writing between an initial capital and a final period, is therefore neither a notional construct nor a grammatical one. Yet even careful research with such promising titles as The Sentence in Written English (Huddleston 1971) and English Complex Sentences (Hudson 1971), which present highly detailed analyses of a very large corpus of written sentences, does not define the sentence; these works simply assume it and go on from there. It would be useful, therefore, to entertain a definition of the sentence that is specifically designed to deal with what is found in writing and that might suggest further areas of research. The following pages sketch such a view.

The most useful response to the question of what is the orthographic sentence recognizes the characteristic that is unique to writing and distinguishes it from other modes of language: the sentence in standard English writing is what comes between a capital and a period. The crucial question then becomes: what determines what can acceptably come between a capital and a period?

The orthographic sentence can best be accounted for by hypothesizing the concept of informational grouping. An informational grouping is the collocation of linguistic units at the phrase level within the limits of a single

sentence-initial capital and sentence-final period determined by their informational relation to each other. The "informational partials" which comprise the informational grouping are phrasal units of language each of which has a "content" (analyzed in the way the content of any linguistic expression may be analyzed) and a form (determined by the syntax of the language). The incorporation of information partials into an orthographic sentence involves (a) a decision about what pieces of information "go together"--the "informational grouping"; (b) the syntactic requirements of the different linguistic forms that constitute the informational grouping--the grammar; and (c) a source of the so-called "ungrammatical" but common and acceptable fragment in writing--the prosodic.

The following brief discussion begins with the syntactic requirements of the written sentence, since these are obligatory, then shows how the informational component may use the syntax, and ends with some examples of the prosodic determinant. The statements that follow should not be read as a grammar of English; they simply serve to indicate the domain of the syntactic component of the informational grouping at the level of surface structure.

The fundamental element in the syntax of the written sentence is the verb (tensed) with its arguments. Some verbs (by either some semantic or syntactic feature) require only a subject, some require a subject and an object, some require a subject and two objects, some have other requirements.⁶ The requirements of the tensed verb are the basis for "proper clause structure." Proper clause structure is the foundation of the written sentence: as such a proper clause can appear "by itself" between an initial capital and a final period.

There are other syntactic structures in English, however, that do not fulfill the requirements of clause structure. Nevertheless, they fulfill other rules of structure, and they will be called "sentence-partials." Common types of sentence-partials are commonly known as various kinds of adverbial clauses, various types of noun clauses; tenseless verb phrases; prepositional phrases, and so on. In a structural description of a sentence these constructions would be located at the phrase level just above the level of lexical constituent in the phrase marker of the surface structure. Sentence-partials are not proper clauses either because (a) they lack a crucial element or (b) they have an extra or special initial immovable element. An infinitive phrase, for example, lacks a tensed verb, while a prepositional phrase lacks a verb entirely.

Expressions that include tensed verbs, such as "subordinate clauses," may nevertheless fail to meet the requirements of proper clause structure because they have a special element, one of a restricted group of lexical signals substituting for one of the arguments of the verb ("which flourished in the Middle Ages"), or an extra element, also from a restricted lexical list ("because they were late").

We do not have to deal with the expansion of any of the elements of a proper clause, or with the transformational mechanism yielding the derived form of sentence-partials, because the written sentence is a surface structure. If the surface structure is a proper clause, it may appear by itself with an initial capital and final period; if it isn't, it cannot grammatically be punctuated as a sentence, regardless of its derivational history. It need only be recognized that on the basis of the syntactic requirements of a sentence, there are certain utterances that cannot "grammatically" receive sentence punctuation: phrases and "improper" clauses, and single lexical items (except imperative verbs, which are relatively rare in written texts).

The grammatical basis of the written sentence is then the restriction on non-clause expressions, sentence-partials, that they be attached to a proper clause-- alone they cannot get sentence punctuation. The requirement that

sentence-partials be in themselves grammatically well-formed is part of the grammar of English, not part of the analysis of the written sentence. The grammaticality of the sentence is built up by virtue of the grammaticality of its parts. The "incompleteness" or "ungrammaticality" of sentence (5) (repeated here for convenience)

(5) Please get the bag from the

is not a failure of the grammatical requirements of some notion of "sentence," but of the sentence-partial "from the [NP]."

The structural skeleton of written English discourse is the sequence of proper clauses. For the most part, however, written sentences do not consist of proper clauses only, but of proper clauses with various sentence-partials attached to them. Thus one can find:

(9a) He gave an answer. It was helpful.

(9b) The answer that he gave was helpful.

(9c) He gave an answer and it was helpful.

(10a) He was happy. He found his book.

(10b) He was happy to find his book.

(10c) He was happy because he found his book.

(10d) He was happy he found his book.

In attaching sentence-partials to proper clauses and to each other, often but not always a signal of attachment is required, depending on the kind of sentence-partial or its position. Such signals consist of rules of position (phrase order), such as the center embedding in (9b); lexical signals, such as the relative pronoun in (9b) and the conjunction in (10c); and the morphological consequences on the verb of syntactic transformations (10b).

A sentence is grammatical because (a) its parts, its sentence-partials, are themselves grammatical and (b) these sentence-partials are properly embedded in a proper clause and properly concatenated. By "properly" is meant "grammatically"--they do not violate the rules of the language, irrespective of whether it is written language or not. An orthographic sentence is a "grammatical" entity only to the extent that there are aspects of the "sentence" constituted by the informational grouping with certain unavoidable grammatical requirements. What is grammatical about the orthographic sentence is that (a) the structure of the clause is rule-governed, (b) the structure of phrases and improper clauses are rule-governed, and (c) there are rules for embedding and concatenating sentence-partials.

The view expressed here is different from that generally incorporated into linguistic grammars, which starts with the grammatical unit "sentence" and works downward to the constituent parts. In our view, the grammaticality of the parts is established by virtue of the syntax of the language, and the sentence is built up from them. The grammatical sentence can be indefinitely long, complicated, various, and expounded by embeddings, right concatenations, left concatenations, and so on. But although the grammar of English may rightfully allow for an indefinitely long "sentence," such a construction would fall outside the information-grouping characteristic of written sentences, further evidence for distinguishing the sentence in grammar from the orthographic sentence.

The determination of which sentence-partials will be attached to which proper clauses is a fundamental component of the informational grouping, and not part of the grammar of the language. Although it is possible in this work to identify the informational grouping as dealing with the organization and linking of information as represented by sentence-partials, the entity "informational grouping" is a new concept in linguistic analysis, and developing a set of "rules" for adequately capturing the principles of informational grouping requires much further research. Given the nature of the problem, it is likely that these

statements would be in the form of constraints against impermissible groupings, rather than as a set of rules representing what is possible. Nevertheless, several factors contributing to the informational grouping--the orthographic sentence--can be distinguished even at this early stage.

One is that some feature of the information carried by a phrase or noncomplete clause and its semantic and logical relations to some proper clause constrain the possibilities of attachment. This is particularly true in clause plus certain kinds of prepositional phrase and in sequences of prepositional phrases (Silverstein 1968):

(11a) On paper he ought to have won.

(11b) The lost kite was found at the top of the tree
at the end of the garden.

In (11a) one piece of information cannot be properly interpreted without the other bit grouped quite close to it. In (11b) the sequence of the two higher prepositional phrases is apparently determined by the relative size of the objects.

Sometimes, although this is rare, there is little consequence in the attachment of a sentence-partial to one clause or another: it would be hard to describe the difference in effect between (12a) and (12b):

- (12a) The story runs to 67 pages in 18 titled episodes or chapters. It presents a distorted picture of the rise and fall of the poet.
- (12b) The story runs to 67 pages. In 18 titled episodes or chapters it presents a distorted picture of the rise and fall of the poet.

In much writing, however, when a sentence-partial is shifted from one clause root to another or converted into a clause on its own, there are different consequences, because the same information is packaged differently. Similarly, a clause may be transformed into a sentence-partial and attached to another proper clause. The examples given earlier (9, 10), although simple, show considerable differences in result. In these examples (except for 10d), the grammar has been required to effect the linkage (which is why the concept of the sentence as a grammatical unit gets strong reinforcement). Often, however, it is only the punctuation that determines the limits of the sentence, as in sentences (6), (7), and (10d). The following more complicated passages are also representative of the use of informational grouping to achieve different messages:

- (13a) Margaret and Gregory met in 1932, falling in love in a fever of conversation and theory-building on the shores of the Sepik River in New Guinea, where Margaret had come to work with Reo Fortune, her second husband.
- (13b) Margaret and Gregory met in 1932, falling in love in a fever of conversation and theory-building on the shores of the Sepik River in New Guinea. Margaret had come there to work with Reo Fortune, her second husband.

(13c) Margaret and Gregory met in 1932, falling in love in a fever of conversation and theory-building on the shores of the Sepik River in New Guinea; Margaret had come there to work with Reo Fortune, her second husband.

The basic option in grouping is what to include in a single sentence. In (13b) the irony achieved by the juxtapositions is gone. In (13c), however, even though the words are identical to (13b), more of the ironic comment is retained, because the linking of the informational partials in one informational group makes a considerable difference in what the reader does with the information presented in the sentence-partials. Skillful writers are aware of the significance of which information partials are grouped into a single sentence. There are also extreme examples: Barthelme's Sentence (1971) is a short story of about three thousand words punctuated as a single sentence; Burke's review of a new edition of Proust (1981) is some twelve hundred words in a single sentence; and just recently a comment by William Faulkner came to light (1985): "I'm trying to say it all in one sentence, between one Cap and one period. I'm still trying if possible to put it all on one pinhead."

Quite opposite from these examples of grouping is the use of sentence punctuation on a grammatical "nonsentence" to achieve the desired informational grouping, as in sentences (14) and (15):

- (14) Much [of her fiction] deals with events and characters so tangential to the complexity and rich diversity of Indian life that, ultimately, the novelist remains a caterer to the Westerner's appetite for exotica. Hence, all this Kiplingesque talk about disease and squalor, heat and dust and the ineffable connection between curries and coarse sensibilities (Chandra 1983).
- (15) But it's a game that should be enjoyed, not taken seriously. Any more than one takes seriously the idea that the United States of Europe is just around the corner (Johnson 1983).

Examples (14) and (15) are "sentences," that is, informational groups, not by virtue of the grammar but as the consequence of the punctuation. In both (14) and (15) the reader is asked to treat the information in the "fragment" as if it were a sentence--because it is the intended informational grouping. To term these examples as "ill-formed," as they would have to be if the sentence were a grammatical entity, is to obscure the fact that they are entirely acceptable instances of informational grouping. In fact, they are superior examples of sophisticated writing, not to be classified with genuinely ungrammatical expressions such as "Please get the bag from the ___".

The third factor that may determine the kind of expression that appears between a capital letter and a period is prosodic. It is well known that writers often want to control how a passage "sounds" in the reader's mind. Significant effects are achieved by the sentence punctuation

of sentence-partials, as in the menacing quality of example (16) in science-fiction writing:

(16) One of the "clouds" dropped lower. And landed.

or the mystery in this passage from Beckett (1981):

(17) Let the eye from its vigil be distracted a moment. At break or close of day. Distracted by the sky. By something in the sky.

Obviously how these written words "sound" when spoken aloud is intimately related to how they will be interpreted by the reader, and therefore have informational-grouping consequences. In examples such as these, however, in contrast to the more elaborate sentences in (14) and (15), the capitals and periods correlate with intended intonation. The prosodic use of capital-and-period is easily accepted in imaginative writing. But it is more common in standard written English than is generally acknowledged. Once one starts to look, examples abound. Sentence (18) is typical:

(18) The trouble was, no diplomats would accept invitations to my house. Neither would any Congressman. Not even a city councilman (Baker 1982).

In its prosodic use, punctuation continues its earliest purpose, to reflect the aural language. The prosodic uses of punctuation operate to an even greater extent internally in the conventional written sentence too.

The sensitive grouping of pieces of information in relation to each other (and the concomitant separation of such pieces of information into distinct sentences) is what makes good style. It might thus seem that "informational grouping" is a rhetorical device, and therefore its function as the "sentence" definer should not be categorized separately from other rhetorical or stylistic elements. It is important, however, to separate the use to which a feature is put from the fact that the feature is available and in some form must be used: that is, to distinguish the "how" from the "that." Although the particular choice of words and the special deployment of syntactic structures are what constitute style (and outside the domain of the grammar), nevertheless lexicon and syntax are part of the structure of English and must be used in every style. Similarly, written discourse cannot avoid informational grouping. How the informational groups are constructed may be (among other things) a matter of style, but the concept of the informational grouping is distinct from its rhetorical uses. It is in this area that the terms "rhetorical," "logical," "expository," "clear," and even "grammatical," loosely used, become intermingled and overlapping when they appear in discussions about punctuation and the sentence.

Because there are two domains that constrain the orthographic sentence--the grammar of sentence-partials and attachment, and the contribution to the message by informational grouping--there are two sources for an improperly formed orthographic sentence. It may be "ungrammatical" because one of the rules of the grammar of the language is violated--a rule of sentence-partials (19) or of concatenating (20):

(19) flourished which in the Middle Ages

(20) To find his book he was happy

Or the source of an improperly formed sentence may be unrelated to language structure; the failure occurs when the grouping of grammatical sentence-partials is "wrong," for example, incoherent (21), or informationally confusing (22):

(21) Not as a revolutionary discovery, the historian presents his evidence as a tentative suggestion.

(22) With the added defect of being, in our opinion, decidedly inferior, just before filming began we were startled to receive a drastically rewritten shooting script.

(cf. Just before filming began we were startled to receive a drastically rewritten shooting script, with the added defect of being, in our opinion, decidedly inferior)

The unacceptable groupings above are not a matter of syntactic structure, but of how the informational units

realized by the sentence-partials are arranged with reference to each other. Nor are they like the intentional but acceptable stretching of the informational grouping of skillful professional writers. They obviously violate some restriction on informational grouping (whose further identification should become clearer with specific research directed to this issue).

The foregoing discussion is a brief statement of the three elements that govern the unfolding of the written sentence in English today: its grammatical requirements (based on the structure of the clause and of sentence-partials); its informational grouping (the interrelationships of the syntactic units and their interpretive and stylistic consequences); and its prosodic values (how a passage is to be "heard" and therefore its esthetic and interpretive effects).

5.2 Sentence-Internal Punctuation

The use of punctuation other than the capital and the period can also be seen in terms of one or another of these three categories. Although it is by no means clear without analysis which uses are to be explained by which domain, most contemporary linguists who address the question of punctuation hold that the basic distribution of the marks is

grammatical.⁷ The punctuation marks are generally described in terms of the syntactic structures they co-occur with, even though significant departures from such grammatical correlations are regularly acknowledged.⁸ This grammatical bias is consistent with the view of the written sentence as fundamentally a grammatical entity.

There are two difficulties in the grammatical view of internal punctuation. The first is that it implies that there are features of the grammar that can be consistently related to particular punctuation marks. If punctuation is considered "syntactic," then certain syntactic entities (however identified) should always be found with certain punctuation marks, unless there is an overriding syntactic reason why they should not. We have seen that this is not true of the grammatical entity "sentence": there is no correlation between it and <.> or <:> or <;> or <,> or even < > (zero). It is equally untrue of the subordinate syntactic components of the orthographic sentence--the proper clauses and sentence-partials. Using the vocabulary of the most explicit exposition of syntactic structure, a tree structure, there is no category of syntactic constituent or relation that can be systematically correlated with punctuation--not at the flattest level of sentence-partials as defined earlier, nor at higher-order syntactic structures, such as "the NP under the S," or "the

NP under the VP," or the "NP over the PP," or "the PP under the VP." In fact, most syntactic constituents at any level are not punctuated at all.

The second difficulty with the grammatical analysis is that for most syntactic contexts in which punctuation seems to be required (regardless of how the linguistic expression is characterized), a counter-example can be constructed in which that punctuation is not required.⁹ Such examples are legion and although careful authorities make these "exceptions" very clear, finding them motivated by semantic considerations, intonational factors, notions of "closeness of relation," and so on, the exceptions do not seem to shatter the belief that punctuation is grammatical.

The following few examples suffice to indicate the optionality of so many "rules" of punctuation. If both the presence and the absence of punctuation co-occurring with the same syntactic structure is acceptable, the presence of the mark cannot be syntactically motivated:

- (23) The house badly needed painting(,) and the garden was overgrown with weeds.
- (24) The house badly needed painting(,) but it looked comfortable.
- (25) After the war(,) he lived in India.

- (26) Although she agreed to the contract(,) she thought ill of the project.
- (27) Slowly(,) they strolled over to the locked park entrance.
- (28) His shuffling(,) hesitant gait soon left him far behind.
- (29) He is a supporter of(,) and close friend to(,) the reform candidate.
- (30) They gave her a certificate for top marks(,) and a prize as well.

Such minimal pairs are common, and if semantic, stylistic, and intonational factors are so frequently recognized as governing punctuation, how has it developed that punctuation is described in grammatical terms? One reason, which has become obvious in the course of this research and is possibly the major cause, is that the analysis of language syntactically has made far more progress than other forms of synchronic linguistic research. It is more perspicuous to explain punctuation in the apparently clearcut categories and widespread vocabulary of syntax than to try to associate it with other linguistic features, such as intonation contours or semantic concepts, where the units are far less commonly known or less clearly understood. Every schoolteacher can by now identify a prepositional phrase, and with a little training a verbless clause, so that these categories lend themselves easily to descriptions of aspects of writing. The categories appropriate to phonological analysis and the concepts used

in semantic interpretation, however, are opaque to most nonlinguists. And so a tradition of analyzing punctuation in terms of syntactic categories arose, not necessarily because these categories are appropriate, but because they are at hand. Moreover, the grammaticizing of punctuation has a long history, its source in the seventeenth century when linguistic analyses of English first flowered and the early grammarians sought both to account for the practice of the early printers and to prescribe for it.¹⁰

Despite the weight of tradition, however, the observed facts lead to the conclusion that the use of punctuation is more frequently optional than not, and depends on factors properly regarded as semantic, or stylistic, or pragmatic, having to do with the length of the expression, its context, its closeness to spoken language, the rhythmic effect intended, and often its deployment as "subjective comment" (Garcia 1975).

Yet there are nevertheless a limited set of conditions where internal punctuation is required in acceptable, conventional writing. Such circumstances turn out to be few in comparison to the entire array of punctuation use, which makes them amenable to being identified, a necessary preliminary to explanation. Some of this required marking may on further investigation turn out to be syntactically motivated, but since syntactic

explanations have been even observationally inadequate for centuries, they are discarded here. Until an appropriate syntactic analysis is performed, modern punctuation is more usefully investigated in terms of whether it is "obligatory" or "optional."

For such a distinction, a corpus is needed. The corpus on which the following statements about obligatory punctuation are based are taken from the most comprehensive recent grammar of English, A Grammar of Contemporary English (Quirk et al.1972). The rationale for using the examples included in a grammar, and not from more natural kinds of written discourse, is that within such a compendium presumably will be found all the grammatical constructions of the language--that is, all the possible clause structures and sentence-partials and their syntactic mechanisms of attachment. Any acceptable pattern of writing not found in this book is not likely to be an additional English construction, but simply another combination of component grammatical structures already analyzed, such combinations not being part of the grammar of English but matters of informational grouping, style, and so on.

Once obligatory punctuation is separated from the larger set of optional marking, a further preliminary taxonomy can be attempted. From an initial classification of this corpus into over a dozen distinct categories, four

basic clusters emerge, and their nature is such as to raise the question of whether most of even the small class of obligatory marking is syntactic. The first of these clusters includes expressions that are in a nonrestrictive appositive relation to their head. By such a relation is meant one in which an expression picks out exactly the same referent as its head--its deletion in no way changes the reference (Langendoen 1969). Such an expression may be of any syntactic form; similarly, the head may be a word, a phrase, a clause, or a whole sentence. Regardless of their internal structure or their position, these constructions require punctuation. However, it is not clear whether this requirement of punctuation should be called "syntactic," for it seems to be a device that allows a syntactically unrelated sentence-partial to be brought into an informational group. Consider the following examples:

- (31) He's a smart guy, that brother of yours.
- (32) Long and untidy, his hair lifted in the wind.
- (33) He gave them the second piece of news, which was that the hijackers had been jailed.
- (34) They were strongest in Wisconsin, in the candidate's home state.
- (35) To John's amusement, we did not go to Chicago.
- (36) They were seeking to set up other, desirable worlds.

However, even nonrestrictive apposition is subject to

prosodic effect, as in the absence of punctuation after "American" in sentence (37) to maintain a single phonological phrase:

- (37) He is a substantial young man, who has a firmer grasp of the history of golf than anyone else I know, mainly because he is that vanishing American a reader (Wind 1985).

Another, related cluster comprises expressions sometimes called "absolute" (from its etymological sense of "free" or "untied" (Vallins 1966). Note that moving the punctuated expressions to the end of the proper clause does not eliminate the comma:

- (38) It being the end of the day, the farmers brought in the cattle.
- (39) His fist clenched, he left the meeting.
- (40) Looked at politically, it was not an easy matter.

The extreme of such syntactic detachment are separate proper clauses joined only by punctuation to form an informational group:

- (41) He likes oysters, she hates oysters.
- (42) The past has not ceased to exist, it has only ceased to matter.

The double feature of syntactic detachment and semantic independence also characterizes what seem to be very different kinds of syntactic structures, expressions

that are sometimes explained as the reduction of a "superordinate supplementive clause." The conjuncts that connect two sentences (43) or that class of disjuncts that express speaker attitudes (44) are not part of the assertion made in the rest of the sentence:

(43) The accusation was irrelevant. Moreover, it was untrue.

(44) Strange, it was she who started it.

Sentence (44), of course, means "I am saying that it is strange that..." The notion that there are "two assertions" (Quirk 1972,544) in such examples can be applied in less obvious cases, such as (45) and (46):

(45) They visit many schools, sometimes by car.

(46) Peter plays many sports, even tennis.

Expressions involving the pro-form "not" may be similar to these:

(47a) John, not Jim, accused the butler.

(47b) It was John who accused the butler, not Jim.

These examples are all different, yet they share a characteristic. The material separated by punctuation can easily be removed from its sentence without affecting the sense of the proper clause, for the additional information it contributes is not needed for the accurate interpretation of the rest of the sentence. Thus, examples (38)-(47)

comprise a second category of obligatory punctuation, by which a sentence-partial representing an independent assertion is brought into an informational grouping.

Note, however, the difference between (47) and (48) below, almost identical except for the explicit "but":

(48) It was not Jim but John who accused the butler.

This example brings up the third cluster of obligatory uses of punctuation, the deletion of specific lexical items. In the first of each pair of the following examples, punctuation is necessary, but not in the second:

(49) Some support charities out of duty, some out of a sense of guilt.

(50) Some support charities out of duty and some out of a sense of guilt.

(51) You can have bacon, sausages or grits.

(52) You can have bacon or sausages or grits.

Here is the source of the "series" rule in punctuation, which is really the deletion of recoverable "and" and "or." The matter of deletion of other nonspecific but identifiable lexical material is rather tricky; it may encourage punctuation but not make it necessary: consider the lack of a comma after the second "some" in (49) and (50). On the other hand, shortening a sentence-partial through deletion of recoverable lexical material may require

punctuation that triggers clause intonation, as in the following:

(53a) Ripe, these apples are sweet.

(53b) When ripe(,) these apples are sweet.

(53c) When they are ripe these apples are sweet.

Sentence (53c) is of course frequently punctuated, but it is far more acceptable without punctuation than (53b). The triplet seems to align on a continuum of deleted lexical material. In the next pair, sentence (54) requires punctuation apparently also because of its ellipted adverbial construction, yet sentence (55) with similar syntactic structure is acceptable if not conventional without punctuation. The difference lies not in the syntax, but in the separateness of the two events in the first sentence, and the simultaneity of the events in the second:

(54) Married in 1970, they were divorced in 1980.

(55) Published by a small press the book never really took off.

The fourth large cluster of obligatory marking is the paired punctuation that distinguishes from its "host" body a sentence-partial "intruded" within another sentence-partial.¹¹ Its identification is clear, and so only two examples need be given:

(56) The candidate, he noticed, was not making sense.

(57) The boy walked up, and ran down, the hill.

The need for paired punctuation to mark intrusion provides some evidence for the hypothesis that a significant function of punctuation is to bring into a sentence-partial or informational grouping material that is not otherwise related either by syntactic structure or semantic necessity.

The range and kinds of explanations generally provided in the literature for the presence of punctuation is so broad that a discussion of each is not possible here. But there is one commonly offered explanation that can be clarified. A universal justification for the distribution of punctuation is that it disambiguates ambiguous sentences and also serves to prevent the misparsing of the constituent structure of a sentence. The distribution of commas often has this effect, but it does not appear evident that such use of punctuation is obligatory. Since not all ambiguities can be solved by punctuation, nor all "garden-pathing" avoided, this deployment is optional, contextually determined, and falls into the realm of good composition (to use Sumney's 1919 phrase), not of syntactic requirement. In fact, there are many cases in which restrictions against punctuation are overriding, such as the restriction against punctuation within a clause. The following sentence

(58) They called Susan a waitress

has two interpretations, neither of which can be made explicit by punctuation ("they said Susan was a waitress"; "they called a waitress for Susan"). On the other hand, if the last two words are intended as a nonrestrictive appositive, a category already identified as independently requiring punctuation, the comma is obligatory:

(59) They called Susan, a waitress.

In the following pair a comma disambiguates because it is impermissible within the sentence-partial "in the third year after" in (60a):

(60a) Professional training is begun in the third year after the student has begun the program.

(60b) Professional training is begun in the third year, after the student has achieved a solid background.

Furthermore, strict "grammatical" rules of punctuation ("the subject cannot be separated from the predicate" or "predicates joined by 'and' cannot be separated by punctuation") often create the ambiguity. Punctuation in the following sentences will make the sense clear but will violate the rules:

- (61) People who go to the opera often complain about the difficulty of getting tickets.
- (62) M-G-M's acclaimed film stars Jack Nicholson and Katharine Turner are not having a romance.
- (63) M-G-M's acclaimed film stars Jack Nicholson and Katharine Turner and opens on July 4.
- (64) We need more careful workers.
(cf. "other, desirable worlds")

In many cases where the proper use of punctuation does prevent a misparsing, it does so as a byproduct of some other obligatory requirement. The requirement that there be a comma in sentence (65) is not for purposes of disambiguation, but because the lexical item "before" in that sentence is a reduced clausal conjunct, similar to example (43):

- (65) Before, I was in the Red Cross.
- (66) Before I was in the Red Cross...

Sentences whose arrangement of sentence-partials or constituent structure allow misparsing that cannot be corrected by punctuation can be found almost daily, as in this book review in the New York Times:

- (67) Within a few pages G.B.S is off to a strong start, responding to news that Gilbert Murray had translated "Oedipus Rex" with a brief outline to expose the defects of Sophocles (Kenner 1985).

Rewriting the sentence, i.e., better composition, is the

solution for this ambiguity. These examples demonstrate that the use of punctuation cannot be justified on the basis of its disambiguating consequences.

It is hoped that this brief survey of obligatory internal punctuation may provide a more adequate grounding for a theory of punctuation. It is not claimed here, because the particular use of a particular mark in a particular place is more often optional than obligatory, that using punctuation at all is optional. Acceptable writing today requires punctuation; it is just that most of these requirements--marking both the orthographic sentence and the internal sentence-partials, are not determined by syntactically predictable factors but by other considerations.

These considerations seem to divide into two groups that are undoubtedly related. One is the informational use of punctuation to group sentence-partials for purposes of interpretation, in which the juxtaposition of sentence-partials is crucial. The second is the prosodic use of punctuation in eliciting intonational contours and in setting the pace and rhythm of written discourse.¹² The elasticity in the use of punctuation made possible by these factors brings punctuation out of the grammar and into a much more tenuous domain, where meaning and style meet,

where perhaps style is meaning. The deployment of punctuation for its information-grouping purposes and its prosodic values is far too extensive even to be sketched at this point, without considerable further study. But in order to see more clearly that these areas deserve independent investigation, it is necessary first to have identified that smaller set of instances where punctuation is not open to choice.

5.3 The Modern Orthographic Sentence

The examination of punctuation practice in the era of early printing and its development into the modern orthographic sentence could not be pursued further here. The quantity of written materials that burgeoned, the enormous increase in their accessibility, and the rise of conscious interest in the English language led to a great deal of attention to writing. The rapidly changing punctuation in the seventeenth and eighteenth centuries merits an entire linguistic study of its own. Enough has been shown here, however, to demonstrate that marking in the first couple of centuries after the introduction of printing began to be dramatically different from manuscript marking. And the practices of that period were as different from our own as they were from the preceding manuscript era.

A number of questions therefore emerge. Why is it that punctuation is so dissimilar in the manuscript era, in the early centuries of printing, and in current practice? Why, after centuries of decreasing presence of marking in the Middle English period, did the number of marks available and their use expand so rapidly after the spread of printing? Why did they again begin to decrease, but in an entirely different way from manuscript practice?

There are two hypotheses that might explain these changes, hypotheses made possible only through a reanalysis of the early history of punctuation. One is that punctuation is a reader-oriented device only minimally dependent on language structure; the other is that it is not a coherent system, but a general "standard," a convention that users come to know as they become literate, and so is not governed by "rules" but by the same kind of motives that govern lexical choice, for instance, or the length and syntactic complexity of the sentences written by different individuals. Perhaps the content of neither of these hypotheses is so startling, for in fact when thoughtful experts deal with the subject, they often behave as if they held these hypotheses, even though their explanations are couched in grammatical terms. But it is necessary to recognize, explicitly, that punctuation is not especially responsive to language structure, that it is a convention inevitably connected to reading and writing technology.

Such an analysis of punctuation helps us see that the practice and principles of marking changed not in response to changes in the structure of English (which did not change nearly as much as punctuation did), but in direct and indirect response to profound changes in social, technological and intellectual factors.

As we have seen, early punctuation had little interest or capability to segment off "sentential" units--that is, groupings of syntactic structures larger than a phrase and smaller than a "paragraph"--from any other unit. At its best, when consistently applied it reflected prosodic values. But as English society changed and the manuscript scribes were further and further divorced from ancient church practices, the oral readings and chantings of texts, prosodic values became more and more diluted. The mechanical printing of books then ushered in a new form of text fundamentally different from the manuscript.¹³

Preparing a manuscript took a long time--weeks and months--and the product was a single copy. With rare exceptions, English scribes did not prepare a manuscript "on spec"; almost invariably they knew its destination--monastery or church purposes, or a rich household, or presentation to a specific noble. When a book was printed, however, the crucial pre-existing connection between writer and reader was broken. A hundred or so copies became available--perhaps in one day--to whoever wanted one. Such

a change had enormous consequences in writing--in subjects, content, attitudes, style, scripts, and ultimately punctuation. On the one hand, the writer did not know who his reader would be, a difference so significant that sociolinguists find its reflection in the use of language pervasive (Bernstein 1964). On the other hand, the reader had available to him, perhaps for the first time, new works, works he was not previously familiar with. Compare this with the circumstances of acquiring a text before the printed book, when a text was almost never "new" to its reader.

Increasingly, readers were acquiring new information in linguistic form by means of their eyes. When readers began to receive language not only from hearing it spoken, but visually too, language itself came to be seen as distinct from speaking. It is not surprising, then, that the function of punctuation changed. The informational and educational role of written work was greatly expanded, and the beginnings of modern punctuation sought more and more to present information in a way that made it easy for the reader both to read quickly and comprehend better. The purpose of the marks increasingly came to perform grouping functions and to mark off information partials, and over the centuries the orthographic sentence developed as the fundamental information group in written English.

NOTES

1. Consider the following typical examples of printed sentences in the sixteenth and seventeenth centuries:

"The Authours Absence, whose only countenance wold haue feared faults, & polished a far meener work: pleadeth in excuse of the apparaunt slacknesse, in perusing this smal treatise" (Broke 1563).

"But then I reasoned againe, Christ was both God and man , therefore hee could withstand the terrors of death :but I am a fleshly man, and perchance I cannot vndergoone the cruell pangs of death:but my conscience solved all this doubt,in that the Martyrs were fleshly man, and siners , yet by the grace of God were strengthened to die,therefore by the same grace shall I be sustained. And in this cogitation I was much comfoorted and prevailed in spirit,&wholly gaue my selfe over to suffer death:and they lead me streight waies to the place of execution, and bound me hand, and foot in maner of a corpse upon the earth, as apeareth by this figure" (Angelus 1617).

"...you are to impute the Error to the absence of the Author. Whose affaires in the Country tooke him from cares of the City:or too explaine himselfe more fully, that he may come off fairely; and possesse him of your opinion more freely; He was call'd away ..." (Braithwaite 1630).

2. Oxford English Dictionary, Compact Edition 1971, Vol.II.
p. 2729.

3. Hitchcock (1924) is more generous, acknowledging that "fifteenth-century conceptions of sentence structure were different from ours," but still hazards that the points may indicate "breath-pauses," this despite the fact that there are "points in what we should consider the middle of a breath-group" (xiv).

4. Modern descriptive linguists who deal with the sentence in some detail invariably analyze it in terms of speech, using as its defining characteristic what Harris (1951) at the high end of of the scale of rigor calls a "contour class" (281). Fries (1952) in a more popular work reminds the reader that his lengthy discussion of "what is a sentence" and "sentence types" refers to "living speech, not those [the sentences] of writing" (281).

5. See Chomsky 1957, Chomsky 1965. Although such a statement is not explicitly made, it is implicit in his theory of transformational generative grammar.

6. There are many studies of the English verb and its requirements; see for example Rensky 1966.

7. To select three representative statements, in the framework of a structuralist, a traditionalist, and a transformationalist, respectively: "the definitions of the various marks--period, comma, semicolon--as well as the statements of their use, have been based on grammatical structure" (Fries 1952,282); "punctuation practice is governed primarily by grammatical considerations and is related to grammatical distinctions" (Quirk et al. 1972, 1055); "other punctuation such as question marks, italics, commas, exclamation marks, is used to reveal syntactic structure" (Fromkin and Rodman 1978,369).

8. In the same texts as in note 7: see Fries 1952, 282, and Quirk et al. 1972, 1060,1062.

9. As a matter of fact, examining a number of constructions all of the same syntactic type reveals that the presence or absence of a punctuation mark is optional in most such constructions. For example, in a sample of coordinated sentences from the Survey of English Usage only "three-quarters of the sentences coordinated with 'but' had a comma [and] only about half of the compound sentences using 'and' contained a comma" (Quirk et al. 1972,1060). That is, once one begins to describe what competent writers actually do, it becomes evident that factors other than syntax determine the use of punctuation marks.

10. With the rise in the late sixteenth century of theoretical concern with the English language, as evidenced in the appearance of many works on the "English tung," and with practical efforts to write correctly, as shown in the rise of the writing masters in the same period, a new vocabulary was made available to specialists (see Alston's Bibliography 1969, Michael's 1970 analysis and listing, Jones' 1953 interpretation, and Heal 1931). Because punctuation in the writing of that time was so much heavier than it is today, the use of syntactic terminology to describe it seemed a better fit than for modern writing. For example, in the following passages from Francis Bacon's collection of essays published in 1625, most of the sentence-partials are punctuated:

"I doe now publish my Essayes; which of all my other works, haue beene most Currant: For that, as it seemes, they come home, to Mens business, and Bosomes" (xxvii)

and

"Wee see in Needle-works, and Imbroideries, It is more pleasing, to have a Lively Worke, upon a Sad and Solemne Ground; then to have a Darke and Melancholy Worke, upon a lightsome Ground" (17).

Nevertheless, the deep-seated belief that punctuation had to do with the spoken language continued to thrive, and the two views co-existed for centuries. On the one hand, there is an anonymous work of 1680:

"Concerning the Stops, Points, or Pause...giv to each of them (where ever you see them placed) their du time...you must endeavour perfectly to know...especially the time, you are to Stop at each of them" (A Treatise of Stops, 6).

Similarly, almost a century later:

"The General Idea of Pointing seems to include nothing more than marking down upon Paper...the respective Pauses which actually were or ought to be made in pronouncing the Words written or printed" (Burrow 1771,8).

On the other hand, there is Mark Lewis' strongly grammatical work in 1675:

"A Comma is used to distinguish Sentences, that have a nearer relation one to another...Such are...Sentences united by any Conjunction" (2).

And also grammatical, a century later the scholarly Robertson writes:

"When a preposition is followed by a relative pronoun, a comma is very properly placed before the preposition" (1785, 50).

This latter tradition, plus the heavy marking found in printed texts of the period, has led scholars like Fries 1925 and Salmon 1962 to claim that by Shakespeare's time punctuation had become "structural" rather than "elocutionary," a significant and unresolved issue in Shakespeare scholarship (see also Partridge 1964, Simpson 1911, and Tannenbaum 1967; for theoretical work on pointing in the eighteenth and nineteenth centuries, see Honan 1960 and Cohen 1977).

11. This term is owed to Radford 1981,60, who uses it in a different and more restricted sense. It is especially interesting that Radford analyzes the intruded adverbial parenthetical expressions as being immediately dominated only by the S node and not by any other node, such as NP or VP.

12. This is by no means to say that punctuation is a systematic representation of even portions of aural speech; it is in fact far from that and this fact is well understood (see Gleason 1965). Nevertheless, the presence or absence of punctuation, and even the choice of the particular mark, is often determined by intonational factors. See also Kilpatrick 1984 and even such an intellectual writer as Bellow 1985 who stress the importance of how writing "sounds."

13. A number of works previously referenced deal with the issue of the difference between medieval "reading" and reading from print. But see especially Alexander and Gibson 1976, Auerbach 1965, Bennett 1937, 1947a, 1947b, 1949, 1979, Chator 1945, Clanchy 1979, Davis 1975, Dawson 1974, Dobree 1940, Eisenstein 1974, Elton 1969, Febvre and Martin 1958, Jenkinson 1916, Jenkinson 1926, Leclercq 1961, Levin 1962, McLuhan 1959, Ong 1982.

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