Teaching Grammar in Context

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PREFACE

More than fifteen years ago, the National Council of Teachers of English published my *Grammar for Teachers* (1979). In the intervening years, this book has been one of NCTE's bestsellers, attesting to the widespread concern about teaching grammar but also reflecting the book's congruence with the writing process movement of the 1980s and 1990s. While suggesting that teachers need to know grammar in order to teach writing more effectively, I also argued that students mainly need to be guided in learning and applying certain grammatical concepts as they revise and edit their writing.

For a long while I had nothing new to say on the topic of teaching grammar. Indeed, I was no longer teaching courses in grammar, but instead teaching courses in the reading and writing processes and whole language education. My books have reflected that thrust: for example, *Reading Process and Practice: From Socio-psycholinguistics to Whole Language* (1994) and *Understanding Whole Language* (1990). But for the past seven or eight years, I have also been teaching, once a year, a graduate/undergraduate course on grammar and the teaching of grammar. Teaching this course has forced me to reread and update myself on the relevant research, naturally, but also to reexamine, refine, and expand my thinking about what aspects of grammar need to be taught to writers, along with the related questions of why, when, and how.

The present book derives, then, not only from my original background in grammar and linguistics, language acquisition, the writing process, and the teaching of writing, but from more recent forays into learning theory and the acquisition of literacy. As much as anything else, the book is informed by my experiences as a teacher/researcher, always taking new risks and trying to figure out why something has or hasn't worked. Thus, what I currently think about teaching grammar in the context of writing reflects an amalgam of research and experience, which is always to some degree in flux. It is this evolving theory that I invite you to explore in these pages, and to which I urge you to contribute as a teacher/researcher yourself. The book is intended for teachers at all levels, but especially the junior high and high school levels, where grammar has been taught most intensively.

Chapter 1 introduces some common meanings of *grammar* and provides a historical overview of traditional school grammar books and grammar teaching. Chapter 2 examines reasons commonly given for teaching grammar as a school subject and calls these reasons into question by describing decades of research that show the teaching of grammar in isolation to have little, if any, effect on the writing of most students. What might be more effective? To lay the groundwork for exploration of this topic, Chapter 3 considers how preschoolers acquire the basic structures of their native language and how the basic grammar of a second language may likewise be acquired. Developing an important point from that discussion, Chapter 4 suggests a research-based perspective on the concept of error itself and on the "errors" our students make as writers, then concludes with practical alternatives to what Lois Rosen (1987) has dubbed "the error hunt." Chapter 5 draws upon the preceding chapters and further research in suggesting what aspects of grammar we might focus on, as we guide our students in becoming more effective in writing and revising sentences and in editing their writing. Finally, Chapter 6 addresses the teaching of grammar from the perspective of learning theory.

Originally, these six chapters were to be followed by chapters dealing with teaching different grammatical concepts in the context of writing. But as I met with teachers interested in sharing more effective ways of teaching useful aspects of grammar, we realized that it would be good to have these chapters written by various teachers who have tried different things in their classrooms. Before long, we concluded that I should publish the more theoretical, research-derived chapters as a separate book and that together we should work toward a sequel in which we will share some of the lessons we've learned, through experience, about teaching grammar in the context of writing.

The Appendix, with sample lessons from my own teaching, looks forward to the future book. These lessons illustrate the kinds recommended in Chapter 6: incidental teaching, inductive learning, mini-lessons, and extended mini-lessons. They also illustrate the five broad topics for grammar lessons suggested in Chapter 5: (1) teaching concepts of subject, verb, clause, sentence, and related concepts for editing; (2) teaching style through sentence combining and sentence generating; (3) teaching sentence sense and style through the manipulation of syntactic elements; (4) teaching the power of dialects and dialects of power; and (5) teaching punctuation and mechanics for convention, clarity, and style.

While this list sounds fairly comprehensive, the book does not actually cover everything you might have wanted to know about grammar and the teaching of it. First, the book does not deal much with linguistic theories; rather, I have mostly drawn upon such theories without discussing them in detail. Second, the book does not include much of the descriptive/prescriptive grammar found in the grammar handbooks. Third, the samples in the Appendix reflect my own teaching situations and therefore do not deal with the particular needs of so-called basic writers, or with the needs of and issues involved in teaching students for whom English is not the native language, or for whom a so-called standard dialect is not the dialect of their nurture or community (but see Chapter 3 and the Appendix). Most of these issues will be treated more thoroughly in the forthcoming sequel, tentatively titled *Lessons to Share: Teaching Grammar in Context*.

In writing this text, I originally thought that whenever I used grammatical terms, I would define them and give examples. Thus, for instance, Chapter 3 includes definitions of the terms I think most important to teach, and Chapter 5 includes some terms used in the examples to clarify research studies described. However, defining or exemplifying every term proved impractical, so I settled for defining a few in the text itself and, in the Glossary, defining and illustrating these terms and others that were used prominently in the book. Fortunately, though, I don't think readers of this book need to have a strong background in grammar to grasp my major points. While a strong grammar background will enable readers to follow the details of an argument, the essence of the arguments should typically be clear without that background.

Scott Mahler, Associate Editorial Director of Heinemann–Boynton/ Cook, has been invaluable as a critic and supporter in the final stages of preparing the manuscript. Thanks go also to Alice Cheyer for her dedication and thoroughness in editing the manuscript and to Melissa Inglis for her expert handling of the book's production.

As always, though, my greatest appreciation goes to my son, John, and to my partner, Rolland. They offer unfailing support for my work and bring joy to my daily life.

1

Grammar and the Teaching of Grammar

An Introduction

At the outset it seems sensible to consider various meanings attached to the term *grammar* and something of the history of grammar texts and the teaching of grammar. That is the purpose of this introductory chapter.

The Meanings of *Grammar*

When teachers are invited to brainstorm what the term *grammar* means to them, they commonly produce a list such as this:

- Parts of speech (elements or categories)
- Syntactic structures (phrases, clauses, sentence types; roles of elements within larger structures)
- "Correct" sentence structure (subject-verb agreement and such)
- "Correct" punctuation and other aspects of mechanics
- Appropriate usage (often thought of as "standard" or educated forms)
- Sentence sense; style (appropriate and effective use of syntactic options; ability to manipulate syntactic elements)

The first two of these, parts of speech and syntactic structures, are part of what one might call a description of how different kinds of words in a language combine into grammatical structures, or *syntax*. Thus one definition of *grammar* would be "a description of the syntax of a language," or an explanation of its syntax (a theory of language structure). The next three items, dealing with correctness and appropriateness, clearly involve pre-

scriptions of how to use language. Thus another meaning of *grammar* is "a set of prescriptions or rules for using language." Still another meaning deals with sentence sense and style: for instance, the construction of clear, readable sentences, and the deliberate use of syntactic constructions for particular effects. The latter might be defined as "the rhetorically effective use of syntactic structures," or in other words suiting syntax to such things as the meaning, audience, genre, voice, and intended pace of a text. All three kinds of *grammar*—but especially the descriptive and prescriptive— are commonly found in the grammar books used in schools, such as *Warriner's High School Handbook* (1992), an offspring of the long-lived *Warriner's English Grammar and Composition* series (1986; first edition, 1951). For related treatments of the various meanings of grammar, see Hartwell (1985) and Francis (1954).

Most teachers conceptualize grammar as descriptions of the structure of a language, prescriptions for its use, perhaps as sentence sense or style, and as the kind of books designed for teaching all these. However, relatively few teachers have realized that underlying these four senses of *grammar* is a more fundamental one: the unconscious command of syntax that enables us to understand and speak the language. Even toddlers use grammatical constructions that are reductions and precursors of the mature syntax they will gradually acquire. In this most fundamental sense, then, we do not need to teach grammar at all: the grammar of our native language is part of what we learn in acquiring that language. Furthermore, non-native speakers of a language can acquire the language in much the same way as native speakers, given similar kinds of opportunities to hear, use, read, and write the language. These topics are addressed in subsequent chapters.

For now, suffice it to say that there are four major senses of *grammar* that will concern us in this book:

- Grammar as a description of syntactic structure
- Grammar as prescriptions for how to use structures and words
- Grammar as rhetorically effective use of syntactic structures
- Grammar as the functional command of sentence structure that enables us to comprehend and produce language

Chapter 2 introduces some of the reasons commonly given for direct teaching of grammar as a system and a set of rules for language use: the descriptions and prescriptions found in school grammar texts. First, however, we consider the historical context from which these reasons have arisen.

During previous centuries, traditional school grammar seems to have had two primary aims: (1) disciplining and training the mind (and sometimes the soul); and (2) teaching grammatical forms and word usages that were considered correct or socially prestigious. Ostensibly the socially prestigious forms were taught to enable the lower classes to move more readily into the middle class (or the middle classes into the upper class), but one suspects that in effect if not intent, the result has more often been to offer the middle and upper classes an excuse for considering themselves superior to others (e.g., Noguchi, 1991, p. 114).

In any case, the teaching of grammar to schoolboys dates back to Greece in the second century B.C. Prior to that, Aristotle and the Stoics regarded grammar as a means of understanding language, but language as a product of humans' nature and therefore, "like man's other attributes, subject to anomalies inexplicable within any strict system of grammar" (Huntsman, 1983, p. 61). However, the Alexandrian grammarians seem to have assumed that language once reflected reality. In a sense, their early grammars were attempts to recover that reality by imposing order on language, especially the language of the centuries-old texts they were trying to understand (Huntsman, p. 61). In our schools, the Alexandrian tradition has dominated the study of grammar for more than two thousand years.

The first grammar text, published by Dionysios of Thrace late in the second century B.C., became the standard for Greek schoolboys until the twelfth century A.D. It also became the basis for Latin grammars, such as the grammars of Donatus in the fourth century A.D. and of Priscian in the sixth century. Their works "dominated school grammar study throughout the Middle Ages to the Renaissance" (Hillocks and Smith, 1991, p. 592).

During the Middle Ages, the concept of grammar as training the mind reached a peak. Grammar became the chief subject of the trivium (grammar, rhetoric, and logic), studied intensively because it was considered the foundation of all knowledge. Indeed, grammar was considered the gateway to sacred knowledge as well as secular; it was the prerequisite for understanding theology and philosophy as well as literature. Considered the basis for all liberal learning, "grammar was thought to discipline the mind and the soul at the same time" (Huntsman, 1983, p. 59). At that time, the major task of the religious cleric (clergyman) was to use the arts, especially

grammar, "to disclose the hidden mysteries of Scripture." Also, Christians thought that grammar would enable them to examine "valid processes of reasoning, the operations of the mind itself" (Morrison, 1983, p. 39). Perhaps it is no wonder that until the late 1960s and early 1970s, Great Britain had what they called "grammar" schools for the highest achieving secondary-level students. Indeed, such elitist schools still survive in a few school districts, even today.

In the eighteenth century, as the Industrial Revolution created a new middle class, traditional school grammar books of English became more numerous and more important. Mastering the grammar books' prescriptions helped the nouveau riche gain social acceptance. But even more than before, the eighteenth-century English grammar books were based upon the early Latin grammars and the structure of Latin. For example, English nouns were described as having the same cases as Latin nouns, though in fact English had already lost most of its distinctive inflectional endings for nouns and verbs. Users of the language were admonished to avoid splitting an infinitive (e.g., to avoid saying "to boldly go") because infinitives are single words in Latin. In other words, the eighteenth-century English grammarians concluded that because Latin infinitives cannot be split (e.g., *amare*, 'to love'), English infinitives should not be split. Their prescriptions for English were based on descriptions of Latin, even where these were irrelevant to English. So it was, too, with the prescription against ending a sentence with a preposition: this literally *can't* be done in Latin so, the eighteenth-century grammarians reasoned, it *shouldn't* be done in English. This recourse to the structure of Latin reflected the belief that languages like English and German and French and Spanish were "corruptions" of Latin, which was thought to provide a purer standard, a more accurate reflection of thought and reality.

There were, of course, dissenting voices, even in ancient Rome, such as that of the orator and rhetorician Quintilian. True, in support of tradition, Quintilian did describe in his *Institutes of Oratory* essentially the same parts of speech named by the earlier Greek grammarians, and Quintilian did believe that one major concern of the grammarian should be "rules for correctness" (*Institutes*, I.v.1). However, he also believed that standards for usage should be based upon the current usage of the educated, not upon ancient authority that has ceased to govern the speech of learned individuals (I.vi.43–45).

This insight from the first century A.D. remains unappreciated even today, because the explanations and prescriptions of the eighteenth-century English grammarians (and the Latin grammarians before them) continue to

form the backbone of grammar texts. In the last hundred years, the structure of the English language has come to be much better understood by scholarly grammarians and by linguists—that is, by scholars who have attempted to study language scientifically, and to study how language is actually used by people. But the grammar textbooks have not changed much to reflect this new knowledge about the language itself and how it is used. Indeed, grammar texts still include attention to spelling and to word meanings and choices, as did the texts of the classical grammarians (Huntsman, 1983, pp. 58–59).

An excursion into the nature and rationale of grammar texts and teaching in the United States sheds further light not only on the purposes but on the methods of instruction.

From relatively early times, English grammar has been one of the "basics" taught in U.S. schools. For instance, the Massachusetts legislature passed in 1789 a law requiring schools to provide instruction in "orthography [spelling], reading, writing, grammar, English language, arithmetic, and decent behavior" (Woods, 1986, p. 5).

During the first half of the nineteenth century, what counted as learning grammar was mainly the memorization and recitation of "definitions, rules, paradigms, examples, and other grammatical features" (Woods, p. 7). Once these were committed to memory, supposedly the student would then be able to apply them. Theoretically, students would learn to apply the rules with ease by parsing sentences: identifying the parts of speech of the words "and specifying their case, gender, number, tense, or person in a given sentence" (Woods, p. 18, fn. 2). In addition to promoting application of grammatical concepts, the activities of memorizing, reciting, and parsing were thought to train the mind, to promote mental discipline. Until the period from 1825 to 1830, grammarians of English gave little or no evidence of being concerned that students actually *understand* the grammatical information they were required to memorize and recite (Woods, p. 8).

The latter half of the nineteenth century saw the introduction of exercises into the grammar texts, on the grounds that students needed to be active in their own learning. These exercises included activities like answering questions, writing sentences to exemplify certain kinds of grammatical functions and constructions, and sometimes rearranging or combining sentences. Indeed, descriptions of the contents of such grammar texts sound very much like what we find offered as learning aids in the grammar texts of today. That is, the texts allowed for limited production of language, in addition to requiring analysis.

The emphasis on grammar as a reflection of thought took on renewed

importance in the later 1800s. Woods (1986, p. 18) nicely summarizes this trend as follows:

> [Samuel] Greene's [1874] intricate sentence analysis had been meant as a way of showing students how "to look directly through the expression to the thought" (as a logician must). Similarly, the pedagogy of diagramming, which characterized the next generation of texts after Greene's, is defended by Reed and Kellogg (*Higher Lessons in English*, 1872) as a method that teaches students "to look through the literary order and discover the logical order" for "[i]t is only by the aid of such a map, or picture, that the pupil can, at a single view, see the sentence as an organic whole" [Reed and Kellogg, 1909, p. 8]. Naturally, the exercises in diagramming, like those in analysis and construction, were validated by that noblest stamp of nineteenth-century theory, mental discipline: "To study thought through its outward form, the sentence, and to discover the fitness of the different parts of the expression to the different parts of the thought is to learn to think" [Reed and Kellogg, p. 7].

By the end of the nineteenth century, grammar came to be considered a means of improving writing. Even in that context, however, grammar was considered a form of mental discipline and a means of social refinement (Woods, 1986, p. 18).

Recently the twentieth century has seen a shift away from the emphasis on grammar as mental discipline and a shift toward even more emphasis on grammar as a means of improving writing. However, the descriptions of the eighteenth-century grammarians and the teaching methods of the latter half of the nineteenth century persisted into the twentieth century (H. L. Smith, 1946) and are still very much with us. Indeed, Thomas and Kintgen (1974) note with dismay that "The school-grammars totally ignore many of the important facts that we have learned about language in the last 150 years" (p. 13), and Hillocks and Smith (1991) note that today's school grammars still reflect the early Greeks' emphasis on grammatical paradigms and their belief that "right" grammatical forms are discoverable. "Over two thousand years later these are still with us," they lament (p. 591).

In Chapter 2, we consider some of the reasons commonly offered today for teaching grammar as a formal discipline, a system of descriptions and prescriptive rules that, in fact, are not always accurate or helpful. We then consider the research evidence that militates against the pragmatic justification for teaching grammar. After considering other relevant kinds of research in Chapters 3–5, we consider in Chapter 6 an emerging research base that points toward more fruitful ways of teaching selected aspects of grammar.

2

Teaching Grammar
Reasons for, Evidence Against

When people talk about "teaching grammar," what they usually mean is teaching descriptive and prescriptive grammar: that is, teaching sentence elements and structure, usage, sentence revision, and punctuation and mechanics via a grammar book or workbook, or perhaps a computer program. They mean teaching grammar as a system, and teaching it directly and systematically, usually in isolation from writing or the study of literature. They mean studying parts of speech and their functions in sentences, various types of phrases and clauses, and different sentence types, perhaps accompanied by sentence diagraming and usually followed by a study of such concepts as subject-verb agreement and pronoun reference. Since this is what people typically mean by "teaching formal grammar" or "the traditional teaching of grammar," it is also what we shall mean in this chapter as we discuss reasons for and evidence against the practice.

The articles listed in Figure 2.1 articulate some of these reasons and describe some of the research.

Why Teach Grammar?

Over the centuries, various reasons have been offered for teaching formal grammar, among them these:

1. The study of grammar is important simply because language is a supreme human achievement that deserves to be studied as such.
2. The study of grammar can be an important vehicle for learning to study something the way a scientist does.
3. The study of grammar will help form the mind by promoting "mental discipline."

FIGURE 2.1 References for and against the teaching of formal grammar.

deBeaugrande, R. (1984). Forward to the basics: Getting down to grammar. *College Composition and Communication, 35*, 358–367.

d'Eloia, S. (1977). The uses—and limits—of grammar. *Journal of Basic Writing, 1* (Spring/Summer), 1–20.

Hartwell, P. (1985). Grammar, grammars, and the teaching of grammar. *College English, 47*, 105–127.

Hillocks, G., Jr. (1986). Grammar and the manipulation of syntax. In *Research on written composition* (pp. 133–151). Urbana, IL: ERIC/RCS and NCRE. Distributed by the National Council of Teachers of English.

Hillocks, G., Jr., & Smith, M. W. (1991). Grammar and usage. In J. Flood, J. M. Jensen, D. Lapp, & J. R. Squire (Eds.), *Handbook of research on teaching the English language arts* (pp. 591–603). New York: Macmillan.

Kolln, M. (1986). Closing the books on alchemy. *College Composition and Communication, 32*, 139–151.

McQuade, F. (1980). Examining a grammar course: The rationale and the result. *English Journal, 69*, 26–30.

Sanborn, J. (1986). Grammar: Good wine before its time. *English Journal, 75*, 72–80.

Sedgwick, E. (1989). Alternatives to teaching formal, analytical grammar. *Journal of Developmental Education, 12* (3), 8–10, 12, 14, 20.

4. The study of grammar will help students score better on standardized tests that include grammar, usage, and punctuation.
5. The study of grammar will help people master another language more readily.
6. The study of grammar will help people master the socially prestigious conventions of spoken and/or written usage.
7. The study of grammar will help people become better users of the language, that is, more effective as listeners and speakers, and especially as readers and writers.

One can hardly quarrel with the idea that language is intrinsically interesting and worthy of study, except to point out that grammar books rarely make it so, and that students are less likely to be interested in the grammar of their language per se than in various appealing aspects of language use, such as the language of advertising, the "double-speak" of government, the language of sexism, and various ethnic and community dialects. And the study of grammar *can* help students learn to work like scientists, provided the teacher approaches it that way instead of the way it is traditionally taught (see Postman and Weingartner, 1966).

But what of the other reasons for teaching grammar? They reflect the assumption that studying grammar in itself, apart from reading and writing, or speaking and listening, will automatically produce desirable effects such as improved mental ability, higher scores on standardized tests, mastery of another language or of socially prestigious grammatical forms, and greater effectiveness as users of the language.

Logically, we need to consult the research evidence.

Early Research Summaries

As long ago as 1936, the Curriculum Commission of the National Council of Teachers of English recommended that "'all teaching of grammar separate from the manipulation of sentences be discontinued . . . since every scientific attempt to prove that knowledge of grammar is useful has failed . . .'" (as quoted in H. A. Greene, 1950, p. 392).

About fifteen years later, an article in the *Encyclopedia of Educational Research* (1950) summarized the available research on the teaching of grammar as a system and a subject, with the comment that these summary statements were warranted by "the best opinion, practice, and experimental evidence" (H. A. Greene, 1950, p. 393). The 1960 edition of the *Encyclopedia of Educational Research* includes similar summary statements (Searles and Carlson, 1960, p. 461), so I have combined some of them here, indicating only the year of each statement as it is quoted or closely paraphrased:

1. "The disciplinary value which may be attributed to formal grammar is negligible" (1950). That is, research does not support the contention that the study of grammar brings about mental discipline (1960).
2. "No more relation exists between knowledge of grammar and the application of the knowledge in a functional language situation than exists between any two totally different and unrelated school subjects" (1950). In fact, one investigator found a higher correlation between achievement in grammar and mathematics than between achievement in grammar and composition or oral language abilities (1960).
3. "In spite of the fact that the contribution of the knowledge of English grammar to achievement in foreign language has been its chief justification in the past, the experimental evidence does not support this conclusion" (1950). It appears that "knowledge of grammar does not materially affect a student's ability to learn a foreign language" (1960).

4. "The study of grammar has been justified because of its possible contribution to reading skills, but the evidence does not support this conclusion" (1950).
5. "The contribution of grammar to the formation of sentences in speech and in writing has doubtless been exaggerated" (1950).
6. "Diagraming sentences does not carry over to expressional problems [actual writing]." Indeed, "it teaches students nothing beyond the ability to diagram" (1960).

In short, the research apparently gave no support to the idea that teaching grammar would help students develop mental discipline, master another language, or become better users of their native language. Indeed, further evidence indicated that training in formal grammar did not transfer to any significant extent to writing "correct" English or even to recognizing it.

In 1963, Richard Braddock, Richard Lloyd-Jones, and Lowell Schoer wrote an NCTE report titled *Research in Written Composition*. For three decades, scholars have been quoting the statement that concludes their discussion of research on the teaching of grammar:

> In view of the widespread agreement of research studies based upon many types of students and teachers, the conclusion can be stated in strong and unqualified terms: the teaching of formal grammar has a negligible or, because it usually displaces some instruction and practice in actual composition, even a harmful effect on the improvement of writing. (pp. 37–38)

This bold statement seemed only a logical extension of DeBoer's conclusion from the available research four years before. DeBoer (1959) had written:

> The impressive fact is . . . that in all these studies, carried out in places and at times far removed from each other, often by highly experienced and disinterested investigators, the results have been consistently negative so far as the value of grammar in the improvement of language expression is concerned. Surely there is no justification in the available evidence for the great expenditure of time and effort still being devoted to formal grammar in American schools. (p. 417)

These strong indictments from the late 1950s and early 1960s clearly echo the NCTE's 1936 summary statement in its resolution against the teaching of grammar: "every scientific attempt to prove that knowledge of grammar is useful has failed." Of course, this conclusion will be no surprise to teachers who have observed that many students are unable or unwilling to analyze and label the parts of sentences or to apply the grammatical "rules" they have been taught.

Research on the Effects of Structural and Transformational Grammar

The 1950s and early 1960s saw the rise of structural linguistics, which attempted to describe languages more consistently, without recourse to meaning or to previous grammars, and therefore more objectively and "scientifically" than traditional grammarians had done. Structural linguists based their grammatical descriptions on careful analysis of English as it was actually spoken in their time, not on hand-me-down rules from Latin and from English grammars of earlier centuries. Therefore, some investigators hypothesized that a study of grammar from the viewpoint of structural linguistics might prove more valuable to writers than a study of traditional grammar, with its inconsistencies and unabashed use of meaning in determining the functions of grammatical elements. George Hillocks's 1986 review (with Michael W. Smith) of the research indicates, however, that overall the research comparing the effects of teaching structural grammar does not demonstrate that it is appreciably superior to the teaching of traditional grammar, with regard to its effects on writing (Hillocks, 1986, pp. 134–135).

The rise of transformational grammar in the 1960s and 1970s generated a similar optimism regarding the practical value of studying grammar through that approach. It emphasized how surface structures can be generated from hypothesized deep, underlying structures, and how underlying structures can be transformed into different stylistic variants. For instance, *The woman is tired* might be derived linguistically from a deep structure like "Something + tired + the + woman," thus validating many native speakers' sense that *tired* in the original sentence is a verb, though it functions as an adjective in the surface sentence. Similarly, a deep structure like "A + new + surgeon + performed + the + operation" might surface as either *A new surgeon performed the operation* or *The operation was performed by a new surgeon*, thus demonstrating the relationship between stylistic variants that mean essentially the same thing.

Bateman and Zidonis (1966) were perhaps the first researchers to investigate the effect that studying transformational grammar might have upon students' writing. The experimental group that studied transformational grammar during their ninth- and tenth-grade years wrote with a lower incidence of errors than the control group that studied no grammar. The transformational group also used more mature sentence structures (the kinds

of structures that characterize older writers), though this difference was largely due to four students (about a fifth of the experimental group) and was not statistfically significant.

In 1969, John Mellon reported a study in which he had hypothesized that a knowledge of transformational grammar in combination with practice in sentence combining would result in greater syntactic fluency in students' writing. The students in five experimental classes were exposed to terminology and grammatical explanations reflective of transformational theory, though actual practice in sentence combining seems to have been the major focus of the experimental treatment. The students in five control classes studied a course in traditional grammar. The two placebo classes that studied no grammar at all had additional lessons in literature and composition, but no additional writing assignments. During a one-year period, the experimental group significantly increased its syntactic fluency on all twelve of the factors analyzed. The control and placebo groups increased on only three of the factors at the same level of significance. The absolute growth in the experimental group was approximately double the growth in the control and placebo groups (Mellon, 1969, p. v). However, there were no appreciable differences in the overall quality of students' writing (p. 69).

In the wake of Mellon's study, Frank O'Hare (1973) reasoned that the greater syntactic maturity of Mellon's transformational group might have been due to their practice in sentence combining alone, rather than to their study of transformational grammar in conjunction with sentence combining. Indeed, Mellon (1969) himself had written, "Clearly, it was the sentence-combining practice associated with the grammar study, not the grammar study itself, that influenced the syntactic fluency growth rate" (p. 74).

Thus O'Hare hypothesized that sentence combining by itself might produce the same kinds of results, without the formal study of grammar or the use of technical terminology. Using nontechnical terms to describe different structures, O'Hare had his experimental group do sentence-combining exercises, while the control group studied no grammar but spent more time in the regular language arts curriculum. The result? The sentence-combining group made significant gains over the control group, in terms of syntactic maturity—which O'Hare (1973) defined as the range of sentence types used (p. 19). In fact, his seventh-grade sentence combiners wrote well beyond the syntactic maturity level typical of eighth graders, and in many respects very similar to that of the twelfth graders in a study by Kellogg Hunt (1965a), which had provided the benchmark data on syntactic maturity at different grade levels, compared with that of adults. Students in the experimental group also "wrote compositions that were

significantly better in overall quality than the control group's compositions" (O'Hare, 1973, pp. 67–68). Thus O'Hare's research suggested that sentence-combining practice alone can enhance syntactic maturity and writing quality, without grammatical terminology or the study of grammar.

A substantial number of studies have supported this conclusion. Hillocks (1986) reports:

> These [sentence-combining] studies have led to a number of sentence combining texts and a host of dissertations from 1973 to the present. The overwhelming majority of these studies have been positive, with about 60 percent of them reporting that work in sentence combining, from as low as grade 2 through the adult level, results in significant advances (at least $p < .05$) on measures of syntactic maturity. Thirty percent of the reports have recorded some improvement at a nonsignificant level or at a level which was not tested for significance. Only 10 percent of the reports have been negative, showing either no significant differences or mixed results. (pp. 142–143)

In their summaries of research on the teaching of grammar, Hillocks (1986) and Hillocks and Smith (1991) present a thorough review of the relevant research since the early 1960s, including studies comparing the effects of teaching traditional or structural or transformational grammar with the effects of teaching no grammar, and studies comparing the effects of teaching structural or transformational grammar with the effects of teaching traditional grammar. After discussing these various studies, including the Elley study described in detail in a later section, Hillocks (1986) concludes:

> None of the studies reviewed for the present report provides any support for teaching grammar as a means of improving composition skills. If schools insist upon teaching the identification of parts of speech, the parsing or diagramming of sentences, or other concepts of traditional grammar (as many still do), they cannot defend it as a means of improving the quality of writing. (p. 138)

Little research on the teaching of mechanics has been done, but the available evidence does not offer much reason to be optimistic about teaching grammar as an aid to avoiding or correcting errors, either (Hillocks, 1986, p. 139; and see Chapter 6 of the present book for a discussion of Calkins, 1980, and DiStefano and Killion, 1984). In fact, as we shall see, the three-year Elley study showed that the writing of students studying transformational or traditional grammar was not significantly different from the no-grammar group, *even on the mechanics of writing*. Thus Hillocks

(1986) issues a strong indictment against the formal teaching of traditional grammar: "School boards, administrators and teachers who impose the systematic study of traditional school grammar on their students over lengthy periods of time in the name of teaching writing do them a gross disservice" (p. 248).

A Note on Functional Grammar

In Australia especially, the functional grammar of British linguists Halliday and Hasan has gained increasing influence in the schools (Halliday, 1985; Halliday and Hasan, 1976). Grammarians in this linguistic tradition claim that functional grammar is more relevant to writing because it emphasizes the functions or uses of grammatical constructions. Here are some ways in which functional grammar differs from traditional grammar (Collerson, 1994, pp. 142–144):

- It is primarily concerned with how the language works to achieve various purposes.
- It focuses first on larger grammatical components (clauses and sentences) and their functions within texts, not on parts of speech. Units at the clause and sentence level are considered most important because of their relationship to rhetorical and stylistic effectiveness.
- It is more concerned with effectiveness than with prescribing adherence to "rules"—that is, to particular conventions of language use.

As far as I know, research has not been conducted to determine the effects on student writing of teaching functional grammar in isolation, as a system for understanding the language. Indeed, the idea of teaching functional grammar in isolation from writing and speaking would seem contrary to the whole notion of focusing on the functional aspects of language structure.

A Dissenting Voice

In light of this overwhelming body of evidence, it may seem surprising that there is any dissenting voice among scholars. But in 1981, before the Elley study and before the Hillocks and Smith summaries, Martha Kolln wrote an article critiquing some earlier research summaries, describing some other relevant research, and articulating her own conviction—without offering any research support—that it should be helpful for students in their writing to bring their unconscious grammatical knowledge to conscious awareness, through the study of the categories and structures and labels of grammar.

One significant contribution is her critique of the research underlying the widely cited research summaries of Braddock, Lloyd-Jones, and Schoer (1963) and of Dean Memering (1978). For example, she points out weaknesses in the design and implementation of some of the studies summarized by Braddock et al.—weaknesses of which the authors apparently were aware (Braddock, Lloyd-Jones, and Schoer, 1963, p. 37). And indeed, just preceding DeBoer's (1959) decisive summary of the research, he had written that "a close examination of some of the reports of investigations of the effectiveness of grammar instruction might reveal flaws in research design or conclusions not fully warranted by the evidence" (p. 417). Since Braddock, Lloyd-Jones, and Schoer also noted weaknesses in methodology and interpretation in the studies from which they generalized, one wonders why these hints of flawed research studies did not inspire more scepticism about their conclusions.

Kolln points out that in the same year as the Braddock report was published (1963), Henry C. Meckel described in the *Handbook of Research on Teaching* many of the same studies as Braddock and colleagues had done. However, his conclusions were rather different. Meckel's conclusions that can be directly compared with those of Braddock et al. are as follows:

1. There is no research evidence that grammar as traditionally taught in the schools has any appreciable effect on the improvement of writing skill.
2. The training periods involved in transfer studies have been comparatively short, and the amount of grammar instruction has frequently been small.
3. There is no conclusive research evidence, however, that grammar has *no* transfer value in developing composition skill.
4. More research is needed on the kind of grammatical knowledge that may reasonably be expected to transfer to writing.
5. Research does not justify the conclusion that grammar should not be taught systematically.
6. There are more efficient methods of securing *immediate* improvement in the writing of pupils, both in sentence structure and usage, than systematic grammatical instruction.

The major points on which Meckel differs from Braddock et al. are items 4 and 5. He explains item 4 by indicating that research in which students are led to apply the grammatical principles taught may produce more positive results than research in which grammar is studied in and by itself. Similarly, he explains item 5 by saying that the systematic teaching of grammar does not preclude explicit attention also to the application of the grammar taught. That is, the formal study of grammar does not have to be the isolated or unapplied study of grammar.

Thus while Kolln points out that the research showing the ineffectiveness of teaching grammar for improving writing is not completely valid, her major contribution lies in pointing out that grammar study in conjunction with explicit application may have more promise than grammar study alone (her 1991 book *Rhetorical Grammar* reflects this conviction). However, it is still by no means clear that "application" cannot be done just as effectively, and a lot more efficiently, without detailed, explicit grammar study. Witness, for example, O'Hare's (1973) research on sentence combining.

Three Studies in Detail

By far the most impressive research on the effects of grammar study is that conducted by Elley, Barham, Lamb, and Wyllie (1976). Equally interesting, however, are an earlier study by Macauley in Scotland (1947), who focused on the degree to which grammar is actually learned, and a study undertaken by a secondary school teacher, Finlay McQuade (1980), who focused on the practical effects of grammar study. All of these studies were reported before the publication of Kolln's article.

The Study by Macauley (1947)

Macauley's study—or rather, his series of studies—strongly suggests that despite years of grammar study, students do not achieve much ability to identify even the basic parts of speech as these function in sentences.

Macauley reports that grammar is (or was in the 1940s) extensively taught in both the primary (elementary) and secondary schools of Scotland, for an average of about thirty minutes a day at both levels. He further explains:

> Formal grammar has to begin at 7½ years of age with lessons on the noun, singular and plural number, and the verb; at 8, is added the study of adjectives; at 8½, personal pronouns and the tenses of verbs; at 9, analysis of simple sentences, conjugation of verbs, kinds of nouns and case of nouns; at 9½, particular analysis, tenses of auxiliary verbs, adverbs; at 10, adverb, preposition and conjunction, the relative pronoun, interchange of phrases and clauses; and so on till in the top primary class at age 11½ to 12 the course to be covered includes complete revision of all the parts of speech with declensions and conjugations, and written exercises involving analysis and parsing of easy, simple, complex, and compound sentences. (p. 153)

In short, the teaching of grammar in the elementary grades emphasizes parts of speech and their functions.

With such extensive and intensive teaching of these aspects of grammar, one might assume that the grammar would be well learned. Not so, according to Macauley's research.

A number of tests were used, similar to the one in Figure 2.2. This test consists of fifty sentences in which the student is to indicate the part of speech of the underlined word, given the choices of noun, pronoun, verb, adjective, or adverb. The student needs to understand that the *function* of a word determines the part of speech in a given context.

Macauley explains that given the method of scoring, students could have gotten about 11 percent of the answers right simply by guessing. Nevertheless, he and his scorers decided to use a 50 percent correct score as a standard of success—not a very demanding standard, given the years of intensive teaching of grammar. For all the test items, the average (mean) score for the 131 students was an incredibly low 27.9 percent. The scores ranged from 35.5 percent at one school to 21.8 percent at another (without knowing Scottish geography, the reader cannot relate these scores to the kind of school, whether city, town, or rural).

For each part of speech, there were ten items. For the five parts of speech, the rate of successful identification was as shown in Figure 2.3. Out of the 131 students, only one scored 50 percent or better on all five parts of speech.

To corroborate or challenge these results, Macauley administered the same test to a group of (average) students entering a junior secondary school. The students were approximately the same age (twelve), but the scores were even lower. Macauley explains that this is probably because the best students had already been siphoned off to a senior secondary school.

Macauley went on to determine the results for students who had spent two years in a junior secondary school, during which they continued to receive instruction in grammar. Their scores did rise steadily from an overall