**Compilation of the definition of Grammar**

What is Grammar?

And why grammar is your friend...

*grammar* (noun): the structure and system of a language, or of languages in general, usually considered to consist of syntax and morphology



Grammar is the system of a language. People sometimes describe grammar as the "rules" of a language; but in fact no language has rules\*. If we use the word "rules", we suggest that somebody created the rules first and then spoke the language, like a new game. But languages did not start like that. Languages started by people making sounds which evolved into words, phrases and sentences. No commonly-spoken language is fixed. All languages change over time. What we call "grammar" is simply a reflection of a language at a particular time.

Do we need to study grammar to learn a language? The short answer is "no". Very many people in the world speak their own, native language without having studied its grammar. Children start to speak before they even know the word "grammar". But if you are serious about learning a foreign language, the long answer is "yes, grammar can help you to learn a language more quickly and more efficiently." It's important to think of grammar as something that can help you, like a friend. When you understand the grammar (or system) of a language, you can understand many things yourself, without having to ask a teacher or look in a book.

So think of grammar as something good, something positive, something that you can use to find your way - like a signpost or a map.

<https://www.englishclub.com/grammar/what.htm>

Aims of the course:

�        Familiarity with the basic principles of the structure of English phrases, clauses and texts

�        Awareness of the relationship between grammatical form and meaning

###### �        Improved command of English

�        Sensitivity to different styles of English

###### �        Mastery of grammatical terminology

Descriptive and prescriptive grammar

* usage – how language is used
* correctness – how language should be used

Contrastive grammar

* The grammar of English compared to the grammar of Norwegian

Knowing how vs. knowing about

* how to produce English sentences and texts
* how to describe the structure of a sentence or a text

Which English?

* Standard/Non-standard
* Regional/social varieties

Levels of language description

* PHONOLOGY: the sound system
* MORPHOLOGY: the inflection and formation of words

singular/plural form of nouns: book – books   
singular/plural form of verbs: she reads – they read   
present/past tense verb forms: talk – talked, think – thought   
adverbs from adjectives: interesting – interestingly   
verbs from nouns: computer – computerize   
nouns from adjectives: slow – slowness   
adjectives from nouns: sand -- sandy, sun - sunny

* SYNTAX:

(1) the combination of words into phrases and sentences

car   
a black car   
a black car with a powerful engine Peter hit Steven.   
Steven hit Peter.   
Did Steven hit Peter? We painted the house red.   
We painted the red house.   
The house was painted red.

    (2) the choice of linguistic forms

I have been watching that series. I have watched that series.   
He read the poem very well.  His reading of the poem was very good.

* SEMANTICS: the meaning of words and sentences

 woman (definition): human, adult, female   
 woman (synonyms): lady, female, girl, mother, wife …

* PRAGMATICS: the meaning of a sentence in context

They were bothering me.   
You are bothering me.   
Do you know Fred?   
Do you know what time it is?

* DISCOURSE ANALYSIS: the structure of complete texts

Grammar and meaning   
George plays the guitar. - He knows how to play the guitar. He may not be playing at the moment.   
George is playing the guitar. - George is playing at the moment.

Most children are naturally curious and adventurous. - They are curious and adventurous by nature.   
Naturally, most children are curious and adventurous. - Of course they are curious and adventurous.

<http://folk.uio.no/hhasselg/grammar/Grammar1_1.htm>

# Grammar

by Sandy Chung and Geoff Pullum

**What Is Grammar?**

People often think of grammar as a matter of arbitrary pronouncements (defining 'good' and 'bad' language), usually negative ones like “There is no such word as ain't” or “Never end a sentence with a preposition.” Linguists are not very interested in this sort of bossiness (sometimes called prescriptivism). For linguists, grammar is simply the collection of principles defining how to put together a sentence.

One sometimes hears people say that such-and-such a language 'has no grammar', but that is not true of any language. Every language has restrictions on how words must be arranged to construct a sentence. Such restrictions are principles of syntax. Every language has about as much syntax as any other language. For example, all languages have principles for constructing sentences that ask questions needing a yes or no answer, e.g. Can you hear me?, questions inviting some other kind of answer, e.g. What did you see?, sentences that express commands, e.g. Eat your potatoes!, and sentences that make assertions, e.g. Whales eat plankton.

**Word Order**

The syntactic principles of a language may insist on some order of words or may allow several options. For instance, English sentences normally must have words in the order Subject-VerbObject. In Whales eat plankton, 'whales' is the subject, 'eat' is the verb, and 'plankton' is the object. Japanese sentences allow the words to occur in several possible orders, but the normal arrangement (when no special emphasis is intended) is Subject-Object-Verb. Irish sentences standardly have words in the order Verb-Subject-Object. Even when a language allows several orders of phrases in the sentence, the choice among them is systematically regulated. For example, there might be a requirement that the first phrase refer to the thing you're talking about, or that whatever the first phrase is, the second must be the main clause verb.

Not only does every language have syntax, but similar syntactic principles are found over and over again in languages. Word order is strikingly similar in English, Swahili, and Thai (which are utterly unrelated); sentences in Irish are remarkably parallel to those in Maori, Maasai, and ancient Egyptian (also unrelated); and so on.

**Word Structure**

However, there is another aspect of grammar in which languages differ more radically, namely in morphology, the principles governing the structure of words. Languages do not all employ morphology to a similar extent. In fact they differ dramatically in the extent to which they allow words to be built out of other words or smaller elements. The English word undeniability is a complex noun formed from the adjective 'undeniable', which is formed from the adjective 'deniable', which is formed from the verb 'deny'. Some languages (like German, Nootka, and Eskimo) permit much more complex word-building than English; others (like Chinese, Ewe, and Vietnamese) permit considerably less.

Languages also differ greatly in the extent to which words vary their shape according to their function in the sentence. In English you have to choose different pronouns ('they' versus 'them') for Subject and Object (though there is no choice to be made with nouns, as in Whales eat plankton). In Latin, the shapes of both pronouns and nouns vary when they are used as subjects or objects; but in Chinese, no words vary in shape like this.

Although we have identified some differences between syntax and morphology, to some extent it is a matter for ongoing research to decide what counts as morphology and what counts as syntax. The answer can change as discoveries are made and theories improved. For instance, most people—in fact, most grammarians—probably say that 'wouldn't' is two words: 'would' followed by an informal pronunciation of 'not'. But if we treat 'wouldn't' as one word, then we can explain why it is treated as one word in the yes/no question Wouldn't it hurt? Notice that we don't say Would not it hurt? for Would it not hurt?, or Would have he cared? for Would he have cared? In each case, the bad versions have two words before the subject. The syntactic principle for English yes/no questions is that the auxiliary verb occurs before the subject.

If this is correct, by the way, then 'ain't' certainly is a word in English, and we know what kind: It's an auxiliary verb (the evidence: We hear questions like Ain't that right?). English teachers disapprove of 'ain't' (naturally enough, since it is found almost entirely in casual conversation, never in formal written English, which is what English teachers are mostly concerned to teach). But linguists are generally not interested in issuing pronouncements about what should be permitted or what should be called what. Their aim is simply to find out what language (including spoken language) is like. Even if you learned all the words of Navajo, and how they are pronounced, you would not be able to speak Navajo until you also learned the principles of Navajo grammar. There must be principles of Navajo grammar that are different from those of other languages (because speakers of other languages cannot understand Navajo), but there may also be principles of universal grammar, the same for all languages. Linguists cannot at present give a full statement of all the principles of grammar for any particular language, or a statement of all the principles of universal grammar. Finding out what they are is a central aim of modern linguistics. <https://www.linguisticsociety.org/resource/grammar>

Language as conceived of by Chomsky is “a set (finite or infinite) of sentences, each finite in length and constructed out of a finite set of elements” (Chomsky 1957:13). As he further claims, this holds true for all natural languages since they have “a finite number of phonemes (or letters in its alphabet) and each sentence is representable as a finite sequence of these phonemes (or letters)” (Chomsky 1957:13). Thus, a grammar of a language should be thought of as “a device of some sort for producing the sentences of the language under analysis” (Chomsky 1957:13). Such a linguistic analysis of a language should attempt to sort out the grammatical sentences from the ungrammatical ones and study the structure of the grammatical sentences. Furthermore, the grammar of a language will generate all the grammatical sentences of a language and none of the ungrammatical ones. There comes, however, the question of what constitutes a sentence or a string of grammatically-arranged words. Chomsky accounts, in this respect, on a native speaker’s intuition. Hence, once a particular string of words or a sentence causes a feeling of wrongness in a native speaker, then it can be classified as ungrammatical. Such an approach to grammaticality enabled syntactitians to study language and its grammatical properties on the basis of devised sentences and not through a corpus of observed speech as it was the case in the past. As put forward by Chomsky (1957), grammar of a language should be considered autonomous of meaning since it is likely for a sentence to be grammatical on the one hand, and meaningless on the other, as in Chomsky’s famous example ‘colourless green ideas sleep furiously’. The opposite is possible as well, thus, a sentence or a string of words may be both ungrammatical and meaningful, to cite yet another Chomsky’s example ‘read you a book on modern music’. Therefore, a well formulated grammar of a language should produce all and only grammatical sentences of a language, regardless of their meaning.  
Reference:  
Chomsky, N. 1957. Syntactic Structures. The Hague: Mouton.  
Chomsky, N. 1975. Reflections on Language. New York: Pantheon

<http://www.linguisticsplanet.com/chomsky-definition-of-language-and-grammar/>

http://www.jstor.org Grammar, Grammars, and the Teaching of Grammar Author(s): Patrick Hartwell Source: College English, Vol. 47, No. 2, (Feb., 1985), pp. 105-127 Published by: National Council of Teachers of English Stable URL: http://www.jstor.org/stable/376562 Accessed: 12/05/2008 15:09 Your use of the JSTOR archive indicates your acceptance of JSTOR's Terms and Conditions of Use, available at http://www.jstor.org/page/info/about/policies/terms.jsp. JSTOR's Terms and Conditions of Use provides, in part, that unless you have obtained prior permission, you may not download an entire issue of a journal or multiple copies of articles, and you may use content in the JSTOR archive only for your personal, non-commercial use. Please contact the publisher regarding any further use of this work. Publisher contact information may be obtained at http://www.jstor.org/action/showPublisher?publisherCode=ncte. Each copy of any part of a JSTOR transmission must contain the same copyright notice that appears on the screen or printed page of such transmission. JSTOR is a not-for-profit organization founded in 1995 to build trusted digital archives for scholarship. We enable the scholarly community to preserve their work and the materials they rely upon, and to build a common research platform that promotes the discovery and use of these resources. For more information about JSTOR, please contact support@jstor.org.

Patrick Hartwell Grammar, Grammars, and the Teaching of Grammar For me the grammar issue was settled at least twenty years ago with the conclu-sion offered by Richard Braddock, Richard Lloyd-Jones, and Lowell Schoer in 1963. 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 unqualifiedt erms: the teaching of formal grammar has a negligible or, because it usually displaces some instruction and practice in composition, even a harmful effect on improve-ment in writing.1 Indeed, I would agree with Janet Emig that the grammar issue is a prime exam-ple of "magical thinking": the assumption that students will learn only what we teach and only because we teach.2 But the grammar issue, as we will see, is a complicated one. And, perhaps surprisingly, it remains controversial, with the regular appearance of papers de-fending the teaching of formal grammar or attacking it.3 Thus Janice Neuleib, 1. Research in Written Composition (Urbana, Ill.: National Council of Teachers of English, 1963), pp. 37-38. 2. "Non-magical Thinking: Presenting Writing Developmentally in Schools," in Writing Process, Development and Communication, Vol. II of Writing: The Nature, Development and Teaching of Written Communication, ed. Charles H. Frederiksen and Joseph F. Dominic (Hillsdale, N.J.: Law-rence Erlbaum, 1980), pp. 21-30. 3. For arguments in favor of formal grammar teaching, see Patrick F. Basset, "Grammar-Can We Afford Not to Teach It?" NASSP Bulletin, 64, No. 10 (1980), 55-63; Mary Epes, et al., "The COMP-LABP roject:A ssessing the Effectiveness of a Laboratory-Centered Basic WritingC ourseo n the College Level" (Jamaica, N.Y.: York College, CUNY, 1979) ERIC 194 908; June B. Evans, "The Analogous Ounce: The Analgesic for Relief," English Journal, 70, No. 2 (1981), 38-39; Sydney Greenbaum, "What Is Grammar and Why Teach It?" (a paper presented at the meeting of the Na-tional Council of Teachers of English, Boston, Nov. 1982) ERIC 222 917; Marjorie Smelstor, A Guide to the Role of Grammar in Teaching Writing (Madison: University of Wisconsin School of Ed-ucation, 1978) ERIC 176 323; and A. M. Tibbetts, Working Papers: A Teacher's Observations on Composition (Glenview, Ill.: Scott, Foresman, 1982). For attacks on formal grammar teaching, see Harvey A. Daniels, Famous Last Words: The Amer- Patrick Hartwell, Professor of English at Indiana University of Pennsylvania, is the co-author, with Robert H. Bentley, of Open to Language: A New College Rhetoric (Oxford University Press, 1982). Professor Hartwell wishes to thank Wayne Edkin, Camden (New York) Public Schools; Michael Marler, Brigham Young University-Hawaii; and Ron Shook, Utah State University, for discussing these issues with him, and particularly to thank his colleague Dan J. Tannacito for references and discussion. College English, Volume 47, Number 2, February 1985 105

106 College English writing on "The Relation of Formal Grammar to Composition" in College Com-position and Communication (23 [1977], 247-50), is tempted "to sputter on pa-per" at reading the quotation above (p. 248), and Martha Kolln, writing in the same journal three years later ("Closing the Books on Alchemy," CCC, 32 [1981], 139-51), labels people like me "alchemists" for our perverse beliefs. Neuleib reviews five experimental studies, most of them concluding that formal grammar instruction has no effect on the quality of students' writing nor on their ability to avoid error. Yet she renders in effect a Scots verdict of "Not proven" and calls for more research on the issue. Similarly, Kolln reviews six experimen-tal studies that arrive at similar conclusions, only one of them overlapping with the studies cited by Neuleib. She calls for more careful definition of the word grammar-her definition being "the internalized system that native speakers of a language share" (p. 140)-and she concludes with a stirring call to place gram-mar instruction at the center of the composition curriculum: "our goal should be to help students understand the system they know unconsciously as native speakers, to teach them the necessary categories and labels that will enable them to think about and talk about their language" (p. 150). Certainly our textbooks and our pedagogies-though they vary widely in what they see as "necessary categories and labels"- continue to emphasize mastery of formal grammar, and popular discussions of a presumed literacy crisis are almost unanimous in their call for a renewed emphasis on the teaching of formal grammar, seen as basic for success in writing.4 An Instructive Example It is worth noting at the outset that both sides in this dispute-the grammarians and the anti-grammarians-articulate the issue in the same positivistic terms: what does experimental research tell us about the value of teaching formal gram-mar? But seventy-five years of experimental research has for all practical pur-poses told us nothing. The two sides are unable to agree on how to interpret such research. Studies are interpreted in terms of one's prior assumptions about the value of teaching grammar: their results seem not to change those assump-tions. Thus the basis of the discussion, a basis shared by Kolin and Neuleib and by Braddock and his colleagues-"what does educational research tell us?"- seems designed to perpetuate, not to resolve, the issue. A single example will be instructive. In 1976 and then at greater length in 1979, W. B. Elley, I. H. Bar-ican Language Crisis Reconsidered (Carbondale: Southern Illinois University Press, 1983); Suzette Haden Elgin, Never Mind the Trees: What the English Teacher Really Needs to Know about Lin-guistics (Berkeley: University of California College of Education, Bay Area Writing Project Occa-sional Paper No. 2, 1980) ERIC 198 536; Mike Rose, "Remedial Writing Courses: A Critique and a Proposal." College English, 45 (1983), 109-128; and Ron Shook, "Response to Martha Kolln," Col-lege Composition and Communication, 34 (1983), 491-495. 4. See, for example, Clifton Fadiman and James Howard, Empty Pages: A Search for Writing Competence in School and Society (Belmont, Cal.: Fearon Pitman, 1979); Edwin Newman, A Civil Tongue (Indianapolis, Ind.: Bobbs-Merrill, 1976); and Strictly Speaking (New York: Warner Books, 1974); John Simons, Paradigms Lost (New York: Clarkson N. Potter, 1980); A. M. Tibbets and Charlene Tibbets, What's Happening to American English? (New York: Scribner's, 1978); and "Why Johnny Can't Write," Newsweek, 8 Dec. 1975, pp. 58-63.

Grammar, Grammars, and the Teaching of Grammar ham, H. Lamb, and M. Wyllie reported on a three-year experiment in New Zea-land, comparing the relative effectiveness at the high school level of instruction in transformational grammar, instruction in traditional grammar, and no gram-mar instruction.5 They concluded that the formal study of grammar, whether transformational or traditional, improved neither writing quality nor control over surface correctness. After two years, no differences were detected in writing performance or language competence; after three years small differences appeared in some minor conven-tions favoring the TG [transformational grammar]g roup, but these were more than offset by the less positive attitudes they showed towards their English studies. (p. 18) Anthony Petroskey, in a review of research ("Grammar Instruction: What We Know," English Journal, 66, No. 9 [1977], 86-88), agreed with this conclusion, finding the study to be carefully designed, "representative of the best kind of ed-ucational research" (p. 86), its validity "unquestionable" (p. 88). Yet Janice Neuleib in her essay found the same conclusions to be "startling" and ques-tioned whether the findings could be generalized beyond the target population, New Zealand high school students. Martha Kolln, when her attention is drawn to the study ("Reply to Ron Shook," CCC, 32 [1981], 139-151), thinks the whole experiment "suspicious." And John Mellon has been willing to use the study to defend the teaching of grammar; the study of Elley and his colleagues, he has ar-gued, shows that teaching grammar does no harm.6 It would seem unlikely, therefore, that further experimental research, in and of itself, will resolve the grammar issue. Any experimental design can be nit-picked, any experimental population can be criticized, and any experimental conclusion can be questioned or, more often, ignored. In fact, it may well be that the grammar question is not open to resolution by experimental research, that, as Noam Chomsky has argued in Reflections on Language (New York: Pantheon, 1975), criticizing the trivialization of human learning by behavioral psychologists, the issue is simply misdefined. There will be "good experiments" only in domains that lie outside the organism's cognitive capacity. For example, there will be no "good experiments" in the study of human learning. This discipline . . . will, of necessity, avoid those domains in which an organism is specially designed to acquire rich cognitive structures that enter into its life in an intimate fashion. The discipline will be of virtually no intellectual interest, it seems to me, since it is restricting itself in principle to those questions that are guaranteed to tell us little about the nature of organisms. (p. 36) 5. "The Role of Grammarin a SecondaryS chool EnglishC urriculum."R esearch in the Teaching of English, 10 (1976), 5-21; The Role of Grammar in a Secondary School Curriculum (Wellington: New Zealand Council of Teachers of English, 1979). 6. "A Taxonomy of Compositional Competencies," in Perspectives on Literacy, ed. Richard Beach and P. David Pearson (Minneapolis: University of Minnesota College of Education, 1979), pp. 247-272. 107

108 College English Asking the Right Questions As a result, though I will look briefly at the tradition of experimental research, my primary goal in this essay is to articulate the grammar issue in different and, I would hope, more productive terms. Specifically, I want to ask four questions: 1. Why is the grammar issue so important? Why has it been the dominant focus of composition research for the last seventy-five years? 2. What definitions of the word grammar are needed to articulate the grammar issue intelligibly? 3. What do findings in cognate disciplines suggest about the value of for-mal grammar instruction? 4. What is our theory of language, and what does it predict about the value of formal grammar instruction? (This question-"what does our theory of language predict?"-seems a much more powerful question than "what does educational research tell us?") In exploring these questions I will attempt to be fully explicit about issues, terms, and assumptions. I hope that both proponents and opponents of formal grammar instruction would agree that these are useful as shared points of refer-ence: care in definition, full examination of the evidence, reference to relevant work in cognate disciplines, and explicit analysis of the theoretical bases of the issue. But even with that gesture of harmony it will be difficult to articulate the issue in a balanced way, one that will be acceptable to both sides. After all, we are dealing with a professional dispute in which one side accuses the other of "mag-ical thinking," and in turn that side responds by charging the other as "al-chemists." Thus we might suspect that the grammar issue is itself embedded in larger models of the transmission of literacy, part of quite different assumptions about the teaching of composition. Those of us who dismiss the teaching of formal grammar have a model of composition instruction that makes the grammar issue "uninteresting" in a sci-entific sense. Our model predicts a rich and complex interaction of learner and environment in mastering literacy, an interaction that has little to do with se-quences of skills instruction as such. Those who defend the teaching of grammar tend to have a model of composition instruction that is rigidly skills-centered and rigidly sequential: the formal teaching of grammar, as the first step in that se-quence, is the cornerstone or linchpin. Grammar teaching is thus supremely in-teresting, naturally a dominant focus for educational research. The controversy over the value of grammar instruction, then, is inseparable from two other is-sues: the issues of sequence in the teaching of composition and of the role of the composition teacher. Consider, for example, the force of these two issues in Jan-ice Neuleib's conclusion: after calling for yet more experimental research on the value of teaching grammar, she ends with an absolute (and unsupported) claim about sequences and teacher roles in composition. We do know, however, that some things must be taught at different levels. Insis-

Grammar, Grammars, and the Teaching of Grammar tence on adherence to usage norms by composition teachers does improve usage. Students can learn to organize their papers if teachers do not accept papers that are disorganized. Perhaps composition teachers can teach those two abilities before they begin the more difficult tasks of developing syntactic sophistication and a win-ning style. ("The Relation of Formal Grammar to Composition," p. 250) (One might want to ask, in passing, whether "usage norms" exist in the mono-lithic fashion the phrase suggests and whether refusing to accept disorganized papers is our best available pedagogy for teaching arrangement.)7 But I want to focus on the notion of sequence that makes the grammar issue so important: first grammar, then usage, then some absolute model of organiza-tion, all controlled by the teacher at the center of the learning process, with other matters, those of rhetorical weight-"syntactic sophistication and a win-ning style"-pushed off to the future. It is not surprising that we call each other names: those of us who question the value of teaching grammar are in fact shak-ing the whole elaborate edifice of traditional composition instruction. The Five Meanings of "''Grammar" Given its centrality to a well-established way of teaching composition, I need to go about the business of defining grammar rather carefully, particularly in view of Kolln's criticism of the lack of care in earlier discussions. Therefore I will build upon a seminal discussion of the word grammar offered a generation ago, in 1954, by W. Nelson Francis, often excerpted as "The Three Meanings of Grammar."8 It is worth reprinting at length, if only to re-establish it as a refer-ence point for future discussions. The first thing we mean by "grammar" is "the set of formal patterns in which the words of a language are arranged in order to convey larger meanings." It is not necessary that we be able to discuss these patterns self-consciously in order to be able to use them. In fact, all speakers of a language above the age of five or six know how to use its complex forms of organization with considerable skill; in this sense of the word-call it "Grammar 1"-they are thoroughly familiar with its grammar. The second meaning of "grammar"-c all it "Grammar2 "-is "the branch of linguistic science which is concerned with the description, analysis, and formuliza-tion of formal language patterns." Just as gravity was in full operation before New-ton's apple fell, so grammar in the first sense was in full operation before anyone formulated the first rule that began the history of grammar as a study. The third sense in which people use the word "grammar" is "linguistic eti-quette." This we may call "Grammar 3." The word in this sense is often coupled with a derogatory adjective: we say that the expression "he ain't here" is "bad grammar." . . . As has already been suggested, much confusion arises from mixing these mean-ings. One hears a good deal of criticism of teachers of English couched in such terms as "they don't teach grammar any more." Criticism of this sort is based on 7. On usage norms, see Edward Finegan, Attitudes toward English Usage: The History of a War of Words (New York: Teachers College Press, 1980), and Jim Quinn, American Tongue in Cheek: A Populist Guide to Language (New York: Pantheon, 1980); on arrangement, see Patrick Hartwell, "Teaching Arrangement: A Pedagogy," CE, 40 (1979), 548-554. 8. "Revolution in Grammar," Quarterly Journal of Speech, 40 (1954), 299-312. 109

110 College English the wholly unproven assumption that teaching Grammar 2 will improve the stu-dent's proficiency in Grammar 1 or improve his manners in Grammar 3. Actually, the form of Grammar 2 which is usually taught is a very inaccurate and misleading analysis of the facts of Grammar 1; and it therefore is of highly questionable value in improvinga person's ability to handle the structuralp atternso f his language.( pp. 300-301) Francis' Grammar 3 is, of course, not grammar at all, but usage. One would like to assume that Joseph Williams' recent discussion of usage ("The Phenomenolo-gy of Error," CCC, 32 (1981), 152-168), along with his references, has placed those shibboleths in a proper perspective. But I doubt it, and I suspect that pop-ular discussions of the grammar issue will be as flawed by the intrusion of usage issues as past discussions have been. At any rate I will make only passing refer-ence to Grammar 3-usage-naively assuming that this issue has been discussed elsewhere and that my readers are familiar with those discussions. We need also to make further discriminations about Francis' Grammar 2, given that the purpose of his 1954 article was to substitute for one form of Gram-mar 2, that "inaccurate and misleading" form "which is usually taught," an-other form, that of American structuralist grammar. Here we can make use of a still earlier discussion, one going back to the days when PMLA was willing to publish articles on rhetoric and linguistics, to a 1927 article by Charles Carpenter Fries, "The Rules of the Common School Grammars" (42 [1927], 221-237). Fries there distinguished between the scientific tradition of language study (to which we will now delimit Francis' Grammar 2, scientific grammar) and the separate tradition of "the common school grammars," developed unscientifically, largely based on two inadequate principles-appeals to "logical principles," like "two negatives make a positive," and analogy to Latin grammar; thus, Charlton Laird's characterization, "the grammar of Latin, ingeniously warped to suggest English" (Language in America [New York: World, 1970], p. 294). There is, of course, a direct link between the "common school grammars" that Fries criti-cized in 1927 and the grammar-based texts of today, and thus it seems wise, as Karl W. Dykema suggests ("Where Our Grammar Came From," CE, 22 (1961), 455-465), to separate Grammar 2, "scientific grammar," from Grammar 4, "school grammar," the latter meaning, quite literally, "the grammars used in the schools." Further, since Martha Kolln points to the adaptation of Christensen's sen-tence rhetoric in a recent sentence-combining text as an example of the proper emphasis on "grammar" ("Closing the Books on Alchemy," p. 140), it is worth separating out, as still another meaning of grammar, Grammar 5, "stylistic grammar," defined as "grammatical terms used in the interest of teaching prose style." And, since stylistic grammars abound, with widely variant terms and em-phases, we might appropriately speak parenthetically of specific forms of Gram-mar 5-Grammar 5 (Lanham); Grammar 5 (Strunk and White); Grammar 5 (Williams, Style); even Grammar 5 (Christensen, as adapted by Daiker, Kerek, and Morenberg).9 9. Richard A. Lanham, Revising Prose (New York: Scribner's, 1979); William Strunk and E. B.

Grammar, Grammars, and the Teaching of Grammar The Grammar in Our Heads With these definitions in mind, let us return to Francis' Grammar 1, admirably defined by Kolln as "the internalized system of rules that speakers of a language share" ("Closing the Books on Alchemy," p. 140), or, to put it more simply, the grammar in our heads. Three features of Grammar 1 need to be stressed: first, its special status as an "internalized system of rules," as tacit and unconscious knowledge; second, the abstract, even counterintuitive, nature of these rules, in-sofar as we are able to approximate them indirectly as Grammar 2 statements; and third, the way in which the form of one's Grammar 1 seems profoundly af-fected by the acquisition of literacy. This sort of review is designed to firm up our theory of language, so that we can ask what it predicts about the value of teaching formal grammar. A simple thought experiment will isolate the special status of Grammar 1 knowledge. I have asked members of a number of different groups-from sixth graders to college freshmen to high-school teachers-to give me the rule for or-dering adjectives of nationality, age, and number in English. The response is al-ways the same: "We don't know the rule." Yet when I ask these groups to per-form an active language task, they show productive control over the rule they have denied knowing. I ask them to arrange the following words in a natural order: French the young girls four I have never seen a native speaker of English who did not immediately produce the natural order, "the four young French girls." The rule is that in English the order of adjectives is first, number, second, age, and third, nationality. Native speakers can create analogous phrases using the rule- "the seventy-three aged Scandinavian lechers"; and the drive for meaning is so great that they will create contexts to make sense out of violations of the rule, as in foregroundingf or em-phasis: "I want to talk to the French four young girls." (I immediately envision a large room, perhaps a banquet hall, filled with tables at which are seated groups of four young girls, each group of a different nationality.) So Grammar 1 is eminently usable knowledge-the way we make our life through language-but it is not accessible knowledge; in a profound sense, we do not know that we have it. Thus neurolinguist Z. N. Pylyshyn speaks of Grammar 1 as "autono-mous," separate from common-sense reasoning, and as "cognitively impenetra-ble," not available for direct examination.10 In philosophy and linguistics, the distinction is made between formal, conscious, "knowing about" knowledge White, The Elements of Style, 3rd ed. (New York: Macmillan, 1979); Joseph Williams, Style: Ten Lessons in Clarity and Grace (Glenview, Ill.: Scott, Foresman, 1981); Christensen, "A Generative Rhetoric of the Sentence," CCC, 14 (1963), 155-161; Donald A. Daiker, Andrew Kerek, and Max Morenberg, The Writer's Options: Combining to Composing, 2nd ed. (New York: Harper & Row, 1982). 10. "A Psychological Approach," in Psychobiology of Language, ed. M. Studdert-Kennedy (Cambridge, Mass.: MIT Press, 1983), pp. 16-19. See also Noam Chomsky, "Language and Uncon-scious Knowledge," in Psychoanalysis and Language: Psychiatry and the Humanities, Vol. III, ed. Joseph H. Smith (New Haven, Conn.: Yale University Press, 1978), pp. 3-44. Ill

112 College English (like Grammar 2 knowledge) and tacit, unconscious, "knowing how" knowledge (like Grammar 1 knowledge). The importance of this distinction for the teaching of composition-it provides a powerful theoretical justification for mistrusting the ability of Grammar 2 (or Grammar 4) knowledge to affect Grammar 1 per-formance-was pointed out in this journal by Martin Steinmann, Jr., in 1966 ("Rhetorical Research," CE, 27 [1966], 278-285). Further, the more we learn about Grammar 1-and most linguists would agree that we know surprisingly little about t-the more abstract and implicit it seems. This abstractness can be illustrated with an experiment, devised by Lise Menn and reported by Morris Halle,11 about our rule for forming plurals in speech. It is obvious that we do indeed have a "rule" for forming plurals, for we do not memorize the plural of each noun separately. You will demonstrate productive control over that rule by forming the spoken plurals of the nonsense words be-low: thole flitch plast Halle offers two ways of formalizing a Grammar 2 equivalent of this Grammar 1 ability. One form of the rule is the following, stated in terms of speech sounds: a. If the noun ends in /s z s z c j/, add /Iz/; b. otherwise, if the noun ends in /p t k f 0/, add /s/; c. otherwise, add /z/.11 This rule comes close to what we literate adults consider to be an adequate rule for plurals in writing, like the rules, for example, taken from a recent "common school grammar," Eric Gould's Reading into Writing: A Rhetoric, Reader, and Handbook (Boston: Houghton Mifflin, 1983): Plurals can be tricky. If you are unsure of a plural, then check it in the dictionary. The general rules are Add s to the singular: girls, tables Add es to nouns ending in ch, sh, x or s: churches, boxes, wishes Add es to nouns ending in y and preceded by a vowel once you have changed y to i: monies, companies. (p. 666) (But note the persistent inadequacy of such Grammar 4 rules: here, as I read it, the rule is inadequate to explain the plurals of ray and tray, even to explain the collective noun monies, not a plural at all, formed from the mass noun money and offered as an example.) A second form of the rule would make use of much more abstract entities, sound features: a. If the noun ends with a sound that is [coronal, strident], add lIz!; b. otherwise, if the noun ends with a sound that is [non-voiced], add Is!; c. otherwise, add /z/. (The notion of "sound features" is itself rather abstract, perhaps new to readers 11. Morris Halle, "Knowledge Unlearned and Untaught: What Speakers Know about the Sounds of Their Language," in Linguistic Theory and Psychological Reality, ed. Halle, Joan Bresnan, and George A. Miller (Cambridge, Mass.: MIT Press, 1978), pp. 135-140.

Grammar, Grammars, and the Teaching of Grammar not trained in linguistics. But such readers should be able to recognize that the spoken plurals of lip and duck, the sound [s], differ from the spoken plurals of sea and gnu, the sound [z], only in that the sounds of the latter are "voiced"- one's vocal cords vibrate-while the sounds of the former are "non-voiced.") To test the psychologically operative rule, the Grammar 1 rule, native speak-ers of English were asked to form the plural of the last name of the composer Johann Sebastian Bach, a sound [x], unique in American (though not in Scottish) English. If speakers follow the first rule above, using word endings, they would reject a) and b), then apply c), producing the plural as /baxz/, with word-final /z/. (If writers were to follow the rule of the common school grammar, they would produce the written plural Baches, apparently, given the form of the rule, on analogy with churches.) If speakers follow the second rule, they would have to analyze the sound [x] as [non-labial, non-coronal, dorsal, non-voiced, and non-strident], producing the plural as /baxs/, with word-final /s/. Native speakers of American English overwhelmingly produce the plural as /baxs/. They use knowl-edge that Halle characterizes as "unlearned and untaught" (p. 140). Now such a conclusion is counterintuitive-certainly it departs maximally from Grammar 4 rules for forming plurals. It seems that native speakers of Eng-lish behave as if they have productive control, as Grammar 1 knowledge, of ab-stract sound features (+ coronal, ?+ strident, and so on) which are available as conscious, Grammar 2 knowledge only to trained linguists-and, indeed, for-mally available only within the last hundred years or so. ("Behave as if," in that last sentence, is a necessary hedge, to underscore the difficulty of "knowing about" Grammar 1.) Moreover, as the example of plural rules suggests, the form of the Grammar 1 in the heads of literate adults seems profoundly affected by the acquisition of lit-eracy. Obviously, literate adults have access to different morphological codes: the abstract print -s underlying the predictable /s/ and /z/ plurals, the abstract print -ed underlying the spoken past tense markers It!, as in "walked," /ld/, as in "surrounded," /d!, as in "scored," and the symbol /01 for no surface realiza-tion, as in the relaxed standard pronunciation of "I walked to the store." Liter-ate adults also have access to distinctions preserved only in the code of print (for example, the distinction between "a good sailer" and "a good sailor" that Mark Aranoff points out in "An English Spelling Convention," Linguistic Inquiry, 9 [1978], 299-303). More significantly, Irene Moscowitz speculates that the ability of third graders to form abstract nouns on analogy with pairs like divine: :divinity and serene: :serenity, where the spoken vowel changes but the spelling preserves meaning, is a factor of knowing how to read. Carol Chomsky finds a three-stage developmental sequence in the grammatical performance of seven-year-olds, re-lated to measures of kind and variety of reading; and Rita S. Brause finds a nine-stage developmental sequence in the ability to understand semantic ambiguity, extending from fourth graders to graduate students.12 John Mills and Gordon 12. Moscowitz, "On the Status of Vowel Shift in English," in Cognitive Development and the Acquisition of Language, ed. T. E. Moore (New York: Academic Press, 1973), pp. 223-60; Chomsky, "Stages in Language Development and Reading Exposure," Harvard Educational Re- 113

114 College English Hemsley find that level of education, and presumably level of literacy, influence judgments of grammaticality, concluding that literacy changes the deep structure of one's internal grammar; Jean Whyte finds that oral language functions devel-op differently in readers and non-readers; Jose Morais, Jesus Alegria, and Paul Bertelson find that illiterate adults are unable to add or delete sounds at the be-ginning of nonsense words, suggesting that awareness of speech as a series of phones is provided by learning to read an alphabetic code. Two experiments-one conducted by Charles A. Ferguson, the other by Mary E. Hamilton and David Barton-find that adults' ability to recognize segmentation in speech is re-lated to degree of literacy, not to amount of schooling or general ability.13 It is worth noting that none of these investigators would suggest that the de-velopmental sequences they have uncovered be isolated and taught as discrete skills. They are natural concomitants of literacy, and they seem best charac-terized not as isolated rules but as developing schemata, broad strategies for ap-proaching written language. Grammar 2 We can, of course, attempt to approximate the rules or schemata of Grammar 1 by writing fully explicit descriptions that model the competence of a native speaker. Such rules, like the rules for pluralizing nouns or ordering adjectives discussed above, are the goal of the science of linguistics, that is, Grammar 2. There are a number of scientific grammars-an older structuralist model and several versions within a generative-transformationalpa radigm,n ot to mention isolated schools like tagmemic grammar, Montague grammar, and the like. Jn fact, we cannot think of Grammar 2 as a stable entity, for its form changes with each new issue of each linguistics journal, as new "rules of grammar" are pro-posed and debated. Thus Grammar 2, though of great theoretical interest to the composition teacher, is of little practical use in the classroom, as Constance Weaver has pointed out (Grammar for Teachers [Urbana, Ill.: NCTE, 1979], pp. 3-6). Indeed Grammar 2 is a scientific model of Grammar 1, not a description of it, so that questions of psychological reality, while important, are less important than other, more theoretical factors, such as the elegance of formulation or the global power of rules. We might, for example, wish to replace the rule for order-ing adjectives of age, number, and nationality cited above with a more general rule-what linguists call a "fuzzy" rule-that adjectives in English are ordered by their abstract quality of "nouniness": adjectives that are very much like view, 42 (1972), 1-33; and Brause, "Developmental Aspects of the Ability to Understand Semantic Ambiguity, with Implications for Teachers," RTE, 11 (1977), 39-48. 13. Mills and Hemsley, "The Effect of Levels of Education on Judgments of Grammatical Ac-ceptability," Language and Speech, 19 (1976), 324-342; Whyte, "Levels of Language Competence and Reading Ability: An Exploratory Investigation," Journal of Research in Reading, 5 (1982), 123-132; Morais, et al., "Does Awareness of Speech as a Series of Phones Arise Spontaneously?" Cognition, 7 (1979), 323-331; Ferguson, Cognitive Effects of Literacy: Linguistic Awareness in Adult Non-readers (Washington, D.C.: National Institute of Education Final Report, 1981) ERIC 222 857; Hamiltona nd Barton, "A Word Is a Word:M etalinguisticS kills in Adults of VaryingL iteracy Lev-els" (Stanford,C al.: StanfordU niversity Departmento f Linguistics,1 980)E RIC2 22 859.

Grammar, Grammars, and the Teaching of Grammar nouns, like French or Scandinavian, come physically closer to nouns than do adjectives that are less "nouny," like four or aged. But our motivation for ac-cepting the broader rule would be its global power, not its psychological real-ity.14 I try to consider a hostile reader, one committed to the teaching of grammar, and I try to think of ways to hammer in the central point of this distinction, that the rules of Grammar 2 are simply unconnected to productive control over Grammar 1. I can argue from authority: Noam Chomsky has touched on this point whenever he has concerned himself with the implications of linguistics for language teaching, and years ago transformationalist Mark Lester stated une-quivocally, "there simply appears to be no correlation between a writer's study of language and his ability to write."'15 I can cite analogies offered by others: Francis Christensen's analogy in an essay originally published in 1962 that for-mal grammar study would be "to invite a centipede to attend to the sequence of his legs in motion,"16 or James Britton's analogy, offered informally after a con-ference presentation, that grammar study would be like forcing starving people to master the use of a knife and fork before allowing them to eat. I can offer analogies of my own, contemplating the wisdom of asking a pool player to mas-ter the physics of momentum before taking up a cue or of making a prospective driver get a degree in automotive engineering before engaging the clutch. I con-sider a hypothetical argument, that if Grammar 2 knowledge affected Grammar 1 performance, then linguists would be our best writers. (I can certify that they are, on the whole, not.) Such a position, after all, is only in accord with other domains of science: the formula for catching a fly ball in baseball ("Playing It by Ear," Scientific American, 248, No. 4 [1983], 76) is of such complexity that it is beyond my understanding-and, I would suspect, that of many workaday cen-terfielders. But perhaps I can best hammer in this claim-that Grammar 2 knowl-edge has no effect on Grammar 1 performance-by offering a demonstration. The diagram on the next page is an attempt by Thomas N. Huckin and Leslie A. Olsen (English for Science and Technology [New York: McGraw-Hill, 1983]) to offer, for students of English as a second language, a fully explicit formulation of what is, for native speakers, a trivial rule of the language-the choice of defi-nite article, indefinite article, or no definite article. There are obvious limits to such a formulation, for article choice in English is less a matter of rule than of idiom ("I went to college" versus "I went to a university" versus British "I went to university"), real-world knowledge (using indefinite "I went into a 14. On the question of the psychological reality of Grammar 2 descriptions, see Maria Black and Shulamith Chiat, "Psycholinguistics without 'Psychological Reality'," Linguistics, 19 (1981), 37-61; Joan Bresnan, ed., The Mental Representation of Grammatical Relations (Cambridge, Mass.: MIT Press, 1982); and Michael H. Long, "Inside the 'Black Box': Methodological Issues in Classroom Research on Language Learning," Language Learning, 30 (1980), 1-42. 15. Chomsky, "The Current Scene in Linguistics," College English, 27 (1966), 587-595; and "Linguistic Theory," in Language Teaching: Broader Contexts, ed. Robert C. Meade, Jr. (New York: Modern Language Association, 1966), pp. 43-49; Mark Lester, "The Value of Transforma-tionalG rammarin TeachingC omposition,"C CC, 16 (1967),2 28. 16. Christensen, "Between Two Worlds," in Notes toward a New Rhetoric: Nine Essays for Teachers, rev. ed., ed. Bonniejean Christensen (New York: Harper & Row, 1978), pp. 1-22. 115

116 College English ENTER NOUN 11 Does noun have a \ yes unique referent? / \_ Use the I no / Is noun yes / Is noun yes \ countable? / \ singular? / Use a or an no no Use no article Use no article house" instantiates definite "I looked at the ceiling," and indefinite "I visited a university" instantiates definite "I talked with the professors"), and stylistic choice (the last sentence above might alternatively end with "the choice of the definite article, the indefinite article, or no article"). Huckin and Olsen invite non-native speakers to use the rule consciously to justify article choice in tech-nical prose, such as the passage below from P. F. Brandwein (Matter: An Earth Science [New York: Harcourt Brace Jovanovich, 1975]). I invite you to spend a couple of minutes doing the same thing, with the understandingt hat this exercise is a test case: you are using a very explicit rule to justify a fairly straightforward issue of grammatical choice. Imagine a cannon on top of highest mountain on earth. It is firing \_\_\_\_ cannonballs horizontally. first cannonball fired follows its path. As cannonball moves, gravity pulls it down, and it soon hits ground. Now velocity with which each succeeding cannonball is fired is increased. Thus, cannonball goes farther each time. Cannonball 2 goes farther than cannonball 1 although each is being pulled by gravity toward the earth all time. \_\_\_\_\_ last cannonball is fired with such tremendous velocity that it goes completely around \_\_\_\_ earth. It returns to mountaintop and continues around the earth again and again. cannonball's inertia causes it to continue in motion indefinitely in \_\_\_\_\_ orbit around earth. In such a situation, we could consider \_\_\_\_ cannonball to be \_\_\_\_\_\_\_ artificial satellite, just like \_\_\_\_ weather satellites launched by \_\_\_\_\_\_\_ U.S. Weather Service. (p. 209) Most native speakers of English who have attempted this exercise report a great deal of frustration, a curious sense of working against, rather than with, the rule. The rule, however valuable it may be for non-native speakers, is, for the most part, simply unusable for native speakers of the language. Cognate Areas of Research We can corroborate this demonstration by turning to research in two cognate areas, studies of the induction of rules of artificial languages and studies of the

Grammar, Grammars, and the Teaching of Grammar role of formal rules in second language acquisition. Psychologists have studied the ability of subjects to learn artificial languages, usually constructed of non-sense syllables or letter strings. Such languages can be described by phrase structure rules: S -tVXS=^vx X\* MX More clearly, they can be presented as flow diagrams, as below: start = /M R X 6 V V^^^^ T end This diagram produces "sentences" like the following: VVTRXRR. XMVTTRX. XXRR. XMVRMT. VVTTRMT. XMTRRR. The following "sentences" would be "ungrammatical"in this language: \*VMXTT. \*RTXVVT. \*TRVXXVVM. Arthur S. Reber, in a classic 1967 experiment, demonstrated that mere exposure to grammatical sentences produced tacit learning: subjects who copied several grammatical sentences performed far above chance in judging the grammaticality of other letter strings. Further experiments have shown that providing subjects with formal rules-giving them the flow diagram above, for example-remark-ably degrades performance: subjects given the "rules of the language" do much less well in acquiring the rules than do subjects not given the rules. Indeed, even telling subjects that they are to induce the rules of an artificial language degrades performance. Such laboratory experiments are admittedly contrived, but they confirm predictions that our theory of language would make about the value of formal rules in language learning. 17 The thrust of recent research in second language learning similarly works to constrain the value of formal grammar rules. The most explicit statement of the value of formal rules is that of Stephen D. Krashen's monitor model.18 Krashen divides second language mastery into acquisition-tacit, informal mastery, akin to first language acquisition-and formal learning-conscious application of 17. Reber, "Implicit Learning of Artificial Grammars," Journal of Verbal Learning and Verbal Behavior, 6 (1967), 855-863; "Implicit Learning of Synthetic Languages: The Role of Instructional Set," Journal of Experimental Psychology: Human Learning and Memory, 2 (1976), 889-94; and Re-ber, Saul M. Kassin, Selma Lewis, and Gary Cantor, "On the Relationship Between Implicit and Explicit Modes in the Learning of a Complex Rule Structure," Journal of Experimental Psychology: Human Learning and Memory, 6 (1980), 492-502. 18. "Individual Variation in the Use of the Monitor," in Principles of Second Language Learn-ing, ed. W. Richie (New York: Academic Press, 1978), pp. 175-185. 117

118 College English Grammar 2 rules, which he calls "monitoring" output. In another essay Krashen uses his model to predict a highly individual use of the monitor and a highly con-strained role for formal rules: Some adults (and very few children) are able to use conscious rules to increase the grammatical accuracy of their output, and even for these people, very strict condi-tions need to be met before the conscious grammar can be applied.l9 In Principles and Practice in Second Language Acquisition (New York: Per-gamon, 1982) Krashen outlines these conditions by means of a series of con-centric circles, beginning with a large circle denoting the rules of English and a smaller circle denoting the subset of those rules described by formal linguists (adding that most linguists would protest that the size of this circle is much too large): /^^\ \Q \_^- ~ruleso f English \. \^~~J) r ules described by formall inguists (p. 92) Krashen then adds smaller circles, as shown below-a subset of the rules de-scribed by formal linguists that would be known to applied linguists, a subset of those rules that would be available to the best teachers, and then a subset of those rules that teachers might choose to present to second language learners: ^---^ ~~ ^^^rules known to applied linguists ((\_((\_\_\_\_) rules known to best teachers rules taught (p. 93) Of course, as Krashen notes, not all the rules taught will be learned, and not all those learned will be available, as what he calls "mental baggage" (p. 94), for conscious use. An experiment by Ellen Bialystock, asking English speakers learning French to judge the grammaticality of taped sentences, complicates this issue, for reac-tion time data suggest that learners first make an intuitive judgment of gram-maticality, using implicit or Grammar 1 knowledge, and only then search for for-mal explanations, using explicit or Grammar 2 knowledge.20 This distinction 19. "Applications of Psycholinguistic Research to the Classroom," in Practical Applications of Research in Foreign Language Teaching, ed. D. J. James (Lincolnwood, Ill.: National Textbook, 1983), p. 61. 20. "Some Evidence for the Integrity and Interaction of Two Knowledge Sources," in New Di-mensions in Second Language Acquisition Research, ed. Roger W. Andersen (Rowley, Mass.: New-bury House, 1981), pp. 62-74.

Grammar, Grammars, and the Teaching of Grammar would suggest that Grammar 2 knowledge is of use to second language learners only after the principle has already been mastered as tacit grammar 1 knowl-edge. In the terms of Krashen's model, learning never becomes acquisition (Principles, p. 86). An ingenious experiment by Herbert W. Seliger complicates the issue yet fur-ther ("On the Nature and Function of Language Rules in Language Learning," TESOL Quarterly, 13 [1979], 359-369). Seliger asked native and non-native speakers of English to orally identify pictures of objects (e.g., "an apple," "a pear," "a book," "an umbrella"), noting whether they used the correct form of the indefinite articles a and an. He then asked each speaker to state the rule for choosing between a and an. He found no correlation between the ability to state the rule and the ability to apply it correctly, either with native or non-native speakers. Indeed, three of four adult non-native speakers in his sample produced a correct form of the rule, but they did not apply it in speaking. A strong conclu-sion from this experiment would be that formal rules of grammar seem to have no value whatsoever. Seliger, however, suggests a more paradoxical interpreta-tion. Rules are of no use, he agrees, but some people think they are, and for these people, assuming that they have internalized the rules, even inadequate rules are of heuristic value, for they allow them to access the internal rules they actually use. The Incantations of the "Common School Grammars" Such a paradox may explain the fascination we have as teachers with "rules of grammar" of the Grammar 4 variety, the "rules" of the "common school gram-mars." Again and again such rules are inadequate to the facts of written lan-guage; you will recall that we have known this since Francis' 1927 study. R. Scott Baldwin and James M. Coady, studying how readers respond to punctua-tion signals ("Psycholinguistic Approaches to a Theory of Punctuation," Jour-nal of Reading Behavior, 10 [1978], 363-83), conclude that conventional rules of punctuation are "a complete sham" (p. 375). My own favorite is the Grammar 4 rule for showing possession, always expressed in terms of adding -'s or -s' to nouns, while our internal grammar, if you think about it, adds possession to noun phrases, albeit under severe stylistic constraints: "the horses of the Queen of England" are "the Queen of England's horses" and "the feathers of the duck over there" are "the duck over there's feathers." Suzette Haden Elgin refers to the "rules" of Grammar 4 as "incantations" (Never Mind the Trees, p. 9: see footnote 3). It may simply be that as hyperliterate adults we are conscious of "using rules" when we are in fact doing something else, something far more complex, accessing tacit heuristics honed by print literacy itself. We can clarify this notion by reaching for an acronym coined by technical writers to explain the readability of complex prose-COIK: "clear only if known." The rules of Grammar 4-no, we can at this point be more honest-the incantations of Grammar 4 are COIK. If you know how to signal possession in the code of print, then the advice to add -'s to nouns makes perfect sense, just as the collective noun monies is a fine ex- 119

120 College English ample of changing -y to -i and adding -es to form the plural. But if you have not grasped, tacitly, the abstract representation of possession in print, such incanta-tions can only be opaque. Worse yet, the advice given in "the common school grammars" is uncon-nected with anything remotely resembling literate adult behavior. Consider, as an example, the rule for not writing a sentence fragment as the rule is described in the best-selling college grammar text, John C. Hodges and Mary S. Whitten's Harbrace College Handbook, 9th ed. (New York: Harcourt Brace Jovanovich, 1982). In order to get to the advice, "as a rule, do not write a sentence frag-ment" (p. 25), the student must master the following learning tasks: Recognizing verbs. Recognizing subjects and verbs. Recognizing all parts of speech. (Harbrace lists eight.) Recognizing phrases and subordinate clauses. (Harbrace lists six types of phrases, and it offers incomplete lists of eight relative pronouns and eighteen subordinating conjunctions.) Recognizing main clauses and types of sentences. These learning tasks completed, the student is given the rule above, offered a page of exceptions, and then given the following advice (or is it an incantation?): Before handing in a composition, . . . proofread each word group written as a sentence. Test each one for completeness. First, be sure that it has at least one sub-ject and one predicate. Next, be sure that the word group is not a dependent clause beginningw ith a subordinatingc onjunctiono r a relative clause. (p. 27) The school grammar approach defines a sentence fragment as a conceptual er-ror-as not having conscious knowledge of the school grammar definition of sen-tence. It demands heavy emphasis on rote memory, and it asks students to be-have in ways patently removed from the behaviors of mature writers. (I have never in my life tested a sentence for completeness, and I am a better writer-and probably a better person-as a consequence.) It may be, of course, that some developing writers, at some points in their development, may benefit from such advice-or, more to the point, may think that they benefit-but, as Thomas Friedman points out in "Teaching Error, Nurturing Confusion" (CE, 45 [1983], 390-399), our theory of language tells us that such advice is, at the best, COIK. As the Maine joke has it, about a tourist asking directions from a farmer, "you can't get there from here." Redefining Error In the specific case of sentence fragments, Mina P. Shaughnessy (Errors and Ex-pectations [New York: Oxford University Press, 1977]) argues that such errors are not conceptual failures at all, but performance errors-mistakes in punctua-tion. Muriel Harris' error counts support this view ("Mending the Fragmented Free Modifier," CCC, 32 [1981], 175-182). Case studies show example after ex-ample of errors that occur because of instruction-one thinks, for example, of David Bartholmae's student explaining that he added an -s to children "because

Grammar, Grammars, and the Teaching of Grammar it's a plural" ("The Study of Error," CCC, 31 [1980], 262). Surveys, such as that by Muriel Harris ("Contradictory Perceptions of the Rules of Writing," CCC, 30 [1979], 218-220), and our own observations suggest that students con-sistently misunderstand such Grammar 4 explanations (COIK, you will recall). For example, from Patrick Hartwell and Robert H. Bentley and from Mike Rose, we have two separate anecdotal accounts of students, cited for punctuat-ing a because-clause as a sentence, who have decided to avoid using because. More generally, Collette A. Daiute's analysis of errors made by college students shows that errors tend to appear at clause boundaries, suggesting short-term memory load and not conceptual deficiency as a cause of error.21 Thus, if we think seriously about error and its relationship to the worship of formal grammar study, we need to attempt some massive dislocation of our tra-ditional thinking, to shuck off our hyperliterate perception of the value of formal rules, and to regain the confidence in the tacit power of unconscious knowledge that our theory of language gives us. Most students, reading their writing aloud, will correct in essence all errors of spelling, grammar, and, by intonation, punc-tuation, but usually without noticing that what they read departs from what they wrote.22 And Richard H. Haswell ("Minimal Marking," CE, 45 [1983], 600-604) notes that his students correct 61.1% of their errors when they are identified with a simple mark in the margin rather than by error type. Such findings suggest that we need to redefine error, to see it not as a cognitive or linguistic problem, a problem of not knowing a "rule of grammar" (whatever that may mean), but rather, following the insight of Robert J. Bracewell ("Writing as a Cognitive Ac-tivity," Visible Language, 14 [1980], 400-422), as a problem of metacognition and metalinguistic awareness, a matter of accessing knowledges that, to be of any use, learners must have already internalized by means of exposure to the code. (Usage issues-Grammar 3-probably represent a different order of prob-lem. Both Joseph Emonds and Jeffrey Jochnowitz establish that the usage issues we worry most about are linguistically unnatural, departures from the grammar in our heads.)23 The notion of metalinguistic awareness seems crucial. The sentence below, created by Douglas R. Hofstadter ("Metamagical Themas," Scientific Ameri-can, 235, No. 1 [1981], 22-32), is offered to clarify that notion; you are invited to examine it for a moment or two before continuing. Their is four errors in this sentance. Can you find them? 21. Hartwell and Bentley, Some Suggestions for Using Open to Language (New York: Oxford University Press, 1982), p. 73; Rose, Writer's Block: The Cognitive Dimension (Carbondale: South-ern Illinois University Press, 1983), p. 99; Daiute, "Psycholinguistic Foundations of the Writing Pro-cess," RTE, 15 (1981), 5-22. 22. See Bartholmae, "The Study of Error"; Patrick Hartwell, "The Writing Center and the Para-doxes of Written-Down Speech," in Writing Centers: Theory and Administration, ed. Gary Olson (Urbana, Ill.: NCTE, 1984), pp. 48-61; and Sondra Perl, "A Look at Basic Writers in the Process of Composing," in Basic Writing: A Collection of Essays for Teachers, Researchers, and Admin-istrators (Urbana, Ill.: NCTE, 1980), pp. 13-32. 23. Emonds, Adjacency in Grammar: The Theory of Language-Particular Rules (New York: Aca-demic, 1983); and Jochnowitz, "Everybody Likes Pizza, Doesn't He or She?" American Speech, 57 (1982), 198-203. 121

122 College English Three errors announce themselves plainly enough, the misspellings of there and sentence and the use of is instead of are. (And, just to illustrate the perils of hy-perliteracy, let it be noted that, through three years of drafts, I referred to the choice of is and are as a matter of "subject-verb agreement.") The fourth error resists detection, until one assesses the truth value of the sentence itself-the fourth error is that there are not four errors, only three. Such a sentence (Hofstadter calls it a "self-referencing sentence") asks you to look at it in two ways, simultaneously as statement and as linguistic artifact-in other words, to exercise metalinguistic awareness. A broad range of cross-cultural studies suggest that metalinguistic awareness is a defining feature of print literacy. Thus Sylvia Scribner and Michael Cole, working with the triliterate Vai of Liberia (variously literate in English, through schooling; in Arabic, for religious purposes; and in an indigenous Vai script, used for personal affairs), find that metalinguistic awareness, broadly conceived, is the only cognitive skill underlying each of the three literacies. The one statis-tically significant skill shared by literate Vai was the recognition of word bound-aries. Moreover, literate Vai tended to answer "yes" when asked (in Vai), "Can you call the sun the moon and the moon the sun?" while illiterate Vai tended to have grave doubts about such metalinguistic play. And in the United States Hen-ry and Lila R. Gleitman report quite different responses by clerical workers and PhD candidates asked to interpret nonsense compounds like "house-bird glass": clerical workers focused on meaning and plausibility (for example, "a house-bird made of glass"), while PhD candidates focused on syntax (for example, "a very small drinkingc up for canaries" or "a glass that protects house-birds").24M ore general research findings suggest a clear relationship between measures of meta-linguistic awareness and measures of literacy level.25 William Labov, speculat-ing on literacy acquisition in inner-city ghettoes, contrasts "stimulus-bound" and "language-bound" individuals, suggesting that the latter seem to master lit-eracy more easily.26 The analysis here suggests that the causal relationship 24. Scribner and Cole, Psychology of Literacy (Cambridge, Mass.: Harvard University Press, 1981); Gleitman and Gleitman, "Language Use and Language Judgment," in Individual Differences in Language Ability and Language Behavior, ed. Charles J. Fillmore, Daniel Kemper, and William S.-Y. Wang (New York: Academic Press, 1979), pp. 103-126. 25. There are several recent reviews of this developing body of research in psychology and child development: Irene Athey, "Language Development Factors Related to Reading Development," Journal of Educational Research, 76 (1983), 197-203; James Flood and Paula Menyuk, "Meta-linguisticD evelopment and Reading/WritingA chievement," ClaremontR eading Conference Year-book, 46 (1982), 122-132; and the following four essays: David T. Hakes, "The Development of MetalinguisticA bilities: What Develops?," pp. 162-210;S tan A. Kuczaj, II, and Brooke Harbaugh, "What Children Think about the Speaking Capabilities of Other Persons and Things," pp. 211-227; Karen Saywitz and Louise Cherry Wilkinson, "Age-Related Differences in Metalinguistic Awareness," pp. 229-250; and Harriet Salatas Waters and Virginia S. Tinsley, "The Development of VerbalS elf-Regulation: Relationshipsb etween Language,C ognition,a nd Behavior," pp. 251-277;a ll in Language, Thought, and Culture, Vol. II of Language Development, ed. Stan Kuczaj, Jr. (Hills-dale, N.J.: Lawrence Erlbaum, 1982). See also Joanne R. Nurss, "Research in Review: Linguistic Awareness and Learning to Read," Young Children, 35, No. 3 [1980], 57-66. 26. "Competing Value Systems in Inner City Schools," in Children In and Out of School: Eth-nography and Education, ed. Perry Gilmore and Allan A. Glatthorn (Washington, D.C.: Center for Applied Linguistics, 1982), pp. 148-171; and "Locating the Frontier between Social and Psychologi-

Grammar, Grammars, and the Teaching of Grammar works the other way, that it is the mastery of written language that increases one's awareness of language as language. This analysis has two implications. First, it makes the question of socially nonstandard dialects, always implicit in discussions of teaching formal grammar, into a non-issue.27 Native speakers of English, regardless of dialect, show tacit mastery of the conventions of Standard English, and that mastery seems to transfer into abstract orthographic knowledge through interaction with print.28 Developing writers show the same patterning of errors, regardless of dialect.29 Studies of reading and of writing suggest that surface features of spoken dialect are simply irrelevant to mastering print literacy.30 Print is a complex cultural code-or better yet, a system of codes-and my bet is that, regardless of in-struction, one masters those codes from the top down, from pragmatic questions of voice, tone, audience, register, and rhetorical strategy, not from the bottom up, from grammar to usage to fixed forms of organization. Second, this analysis forces us to posit multiple literacies, used for multiple purposes, rather than a single static literacy, engraved in "rules of grammar." These multiple literacies are evident in cross-cultural studies.31 They are equally evident when we inquire into the uses of literacy in American communities.32 cal Factors in Linguistic Structure," in Individual Differences in Language Ability and Language Behavior, ed. Fillmore, Kemper, and Wang, pp. 327-340. 27. See, for example, Thomas Farrell, "IQ and Standard English," CCC, 34 (1983), 470-484; and the responses by Karen L. Greenberg and Patrick Hartwell, CCC, in press. 28. Jane W. Torrey, "Teaching Standard English to Speakers of Other Dialects," in Applications of Linguistics: Selected Papers of the Second International Conference of Applied Linguistics, ed. G. E. Perrena nd J. L. M. Trim( Cambridge, Mass.: CambridgeU niversityP ress, 1971),p p. 423-428; James W. Beers and EdmundH . Henderson, "A Study of the Developing OrthographicC oncepts among First Graders," RTE, 11 (1977), 133-148. 29. See the errorc ounts of Samuel A. Kirschnera nd G. HowardP oteet, "Non-StandardE nglish Usage in the Writing of Black, White, and Hispanic Remedial English Students in an Urban Commu-nity College," RTE, 7 (1973), 351-355; and Marilyn Sternglass, "Close Similarities in Dialect Fea-tures of Black and White College Students in Remedial Composition Classes," TESOL Quarterly, 8 (1974), 271-283. 30. For reading, see the massive study by Kenneth S. Goodman and Yetta M. Goodman, Reading of American Children whose Language Is a Stable Rural Dialect of English or a Language other than English (Washington, D.C.: National Institute of Education Final Report, 1978) ERIC 175 754; and the overview by Rudine Sims, "Dialect and Reading:T owardR edefiningt he Issues," in Reader Meets Author/Bridging the Gap: A Psycholinguistic and Sociolinguistic Approach, ed. Judith A. Langer and M. Tricia Smith-Burke (Newark, Del.: International Reading Association, 1982), pp. 222-232.F or writing,s ee PatrickH artwell, "Dialect Interferencei n Writing:A CriticalV iew," RTE, 14 (1980), 101-118; and the anthology edited by Barry M. Kroll and Roberta J. Vann, Exploring Speaking-Writing Relationships: Connections and Contrasts (Urbana, Ill.: NCTE, 1981). 31. See, for example, Eric A. Havelock, The Literary Revolution in Greece and its Cultural Con-sequences (Princeton, N.J.: Princeton University Press, 1982); Lesley Milroy on literacy in Dublin, Language and Social Networks (Oxford: Basil Blackwell, 1980); Ron Scollon and Suzanne B. K. Scollon on literacy in central Alaska, Interethnic Communication: An Athabascan Case (Austin, Tex.: Southwest Educational Development Laboratory Working Papers in Sociolinguistics, No. 59, 1979) ERIC 175 276; and Scribner and Cole on literacy in Liberia, Psychology of Literacy (see foot-note 24). 32. See, for example, the anthology edited by Deborah Tannen, Spoken and Written Language: Exploring Orality and Literacy (Norwood, N.J.: Ablex, 1982); and Shirley Brice Heath's continuing work: "ProteanS hapes in Literacy Events: Ever-ShiftingO ral and LiterateT raditions,"i n Spoken and Written Language, pp. 91-117; Ways with Words: Language, Life and Work in Communities and 123

124 College English Further, given that students, at all levels, show widely variant interactions with print literacy, there would seem to be little to do with grammar-with Grammar 2 or with Grammar 4-that we could isolate as a basis for formal instruction.33 Grammar 5: Stylistic Grammar Similarly, when we turn to Grammar 5, "grammatical terms used in the interest of teaching prose style," so central to Martha Kolln's argument for teaching for-mal grammar, we find that the grammar issue is simply beside the point. There are two fully-articulated positions about "stylistic grammar," which I will label "romantic" and "classic," following Richard Lloyd-Jones and Richard E. Young.34 The romantic position is that stylistic grammars, though perhaps useful for teachers, have little place in the teaching of composition, for students must struggle with and through language toward meaning. This position rests on a the-ory of language ultimately philosophical rather than linguistic (witness, for ex-ample, the contempt for linguists in Ann Berthoff's The Making of Meaning: Metaphors, Models, and Maxims for Writing Teachers [Montclair, N.J.: Boyn-ton/Cook, 1981]); it is articulated as a theory of style by Donald A. Murray and, on somewhat different grounds (that stylistic grammars encourage overuse of the monitor), by Ian Pringle. The classic position, on the other hand, is that we can find ways to offer developing writers helpful suggestions about prose style, sug-gestions such as Francis Christensen's emphasis on the cumulative sentence, de-veloped by observing the practice of skilled writers, and Joseph Williams' advice about predication, developed by psycholinguistic studies of comprehension.35 James A. Berlin's recent survey of composition theory (CE, 45 [1982], 765-777) probably understates the gulf between these two positions and the radically dif-ferent conceptions of language that underlie them, but it does establish that they Classrooms (New York: Cambridge University Press, 1983); and "What No Bedtime Story Means," Language in Society, 11 (1982), 49-76. 33. For studies at the elementaryl evel, see Dell H. Hymes, et al., eds., EthnographicM onitoring of Children's Acquisition of Reading/Language Arts Skills In and Out of the Classroom (Wash-ington, D.C.: National Institute of Education Final Report, 1981) ERIC 208 096. For studies at the secondary level, see James L. Collins and Michael M. Williamson, "Spoken Language and Semantic Abbreviation in Writing," RTE, 15 (1981), 23-36. And for studies at the college level, see Patrick Hartwella nd Gene LoPresti, "Sentence Combininga s Kid-Watching,"in Sentence Combining:T o-ward a Rhetorical Perspective, ed. Donald A. Daiker, Andrew Kerek, and Max Morenberg (Carbon-dale: Southern Illinois University Press, in press). 34. Lloyd-Jones, "Romantic Revels-I Am Not You," CCC, 23 (1972), 251-271; and Young, "Concepts of Art and the Teaching of Writing," in The Rhetorical Tradition and Modern Writing, ed. James J. Murphy (New York: Modern Language Association, 1982), pp. 130-141. 35. For the romantic position, see Ann E. Berthoff, "Tolstoy, Vygotsky, and the Making of Meaning," CCC, 29 (1978), 249-255; Kenneth Dowst, "The Epistemic Approach," in Eight Ap-proaches to Teaching Composition, ed. Timothy Donovan and Ben G. McClellan (Urbana, Ill.: NCTE, 1980), pp. 65-85; Peter Elbow, "The Challenge for Sentence Combining"; and Donald Mur-ray, "Following Language toward Meaning," both in Sentence Combining: Toward a Rhetorical Perspective (in press; see footnote 33); and Ian Pringle, "Why Teach Style? A Review-Essay," CCC, 34 (1983), 91-98. For the classic position, see Christensen's "A Generative Rhetoric of the Sentence"; and Joseph Williams' "Defining Complexity," CE, 41 (1979), 595-609; and his Style: Ten Lessons in Clarity and Grace (see footnote 9).

Grammar, Grammars, and the Teaching of Grammar share an overriding assumption in common: that one learns to control the lan-guage of print by manipulating language in meaningful contexts, not by learning about language in isolation, as by the study of formal grammar. Thus even clas-sic theorists, who choose to present a vocabulary of style to students, do so only as a vehicle for encouraging productive control of communicative structures. We might put the matter in the following terms. Writers need to develop skills at two levels. One, broadly rhetorical, involves communication in meaningful contexts (the strategies, registers, and procedures of discourse across a range of modes, audiences, contexts, and purposes). The other, broadly metalinguistic rather than linguistic, involves active manipulation of language with conscious attention to surface form. This second level may be developed tacitly, as a natu-ral adjunct to developing rhetorical competencies-I take this to be the position of romantic theorists. It may be developed formally, by manipulating language for stylistic effect, and such manipulation may involve, for pedagogical con-tinuity, a vocabulary of style. But it is primarily developed by any kind of lan-guage activity that enhances the awareness of language as language.36 David T. Hakes, summarizing the research on metalinguistic awareness, notes how far we are from understanding this process: the optimal conditions for becoming metalinguisticallyc ompetent involve growing up in a literate environment with adult models who are themselves meta-linguistically competent and who foster the growth of that competence in a variety of ways as yet little understood. ("The Development of Metalinguistic Abilities," p. 205: see footnote 25) Such a model places language, at all levels, at the center of the curriculum, but not as "necessary categories and labels" (Kolln, "Closing the Books on Al-chemy," p. 150), but as literal stuff, verbal clay, to be molded and probed, shaped and reshaped, and, above all, enjoyed. The Tradition of Experimental Research Thus, when we turn back to experimental research on the value of formal gram-mar instruction, we do so with firm predictions given us by our theory of lan-guage. Our theory would predict that formal grammar instruction, whether instruction in scientific grammar or instruction in "the common school gram-mar," would have little to do with control over surface correctness nor with quality of writing. It would predict that any form of active involvement with lan-guage would be preferable to instruction in rules or definitions (or incantations). In essence, this is what the research tells us. In 1893, the Committee of Ten (Re-port of the Committee of Ten on Secondary School Studies [Washington, D.C.: U.S. Government Printing Office, 1893]) put grammar at the center of the Eng-lish curriculum, and its report established the rigidly sequential mode of instruc- 36. Courtney B. Cazden and David K. Dickinson, "Language and Education: Standardization versus Cultural Pluralism," in Language in the USA, ed. Charles A. Ferguson and Shirley Brice Heath (New York: Cambridge University Press, 1981), pp. 446-468; and Carol Chomsky, "Develop-ing Facility with Language Structure," in Discovering Language with Children, ed. Gay Su Pinnell (Urbana, Ill.: NCTE, 1980), pp. 56-59. 125

126 College English tion common for the last century. But the committee explicitly noted that gram-mar instruction did not aid correctness, arguing instead that it improved the ability to think logically (an argument developed from the role of the "gram-marian" in the classical rhetorical tradition, essentially a teacher of literature-see, for example, the etymology of grammar in the Oxford English Dictionary). But Franklin S. Hoyt, in a 1906 experiment, found no relationship between the study of grammar and the ability to think logically; his research led him to conclude what I am constrained to argue more than seventy-five years later, that there is no "relationship between a knowledge of technical grammar and the ability to use English and to interpret language" ("The Place of Grammar in the Elementary Curriculum," Teachers College Record, 7 [1906], 483-484). Later studies, through the 1920s, focused on the relationship of knowledge of grammar and ability to recognize error; experiments reported by James Boraas in 1917 and by William Asker in 1923 are typical of those that reported no correlation. In the 1930s, with the development of the functional grammar movement, it was common to compare the study of formal grammar with one form or another of active manipulation of language; experiments by I. O. Ash in 1935 and Ellen Frogner in 1939 are typical of studies showing the superiority of active involve-ment with language.37 In a 1959 article, "Grammar in Language Teaching" (Ele-mentary English, 36 [1959], 412-421), John J. DeBoer noted the consistency of these findings. 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. (p. 417) In 1960 Ingrid M. Strom, reviewing more than fifty experimental studies, came to a similarly strong and unqualified conclusion: direct methods of instruction, focusing on writing activities and the structuring of ideas, are more efficient in teaching sentence structure, usage, punctuation, and other related factors than are such methods as nomenclature drill, diagramming, and rote memorizationo f grammaticalr ules.38 In 1963 two research reviews appeared, one by Braddock, Lloyd-Jones, and Schorer, cited at the beginning of this paper, and one by Henry C. Meckel, whose conclusions, though more guarded, are in essential agreement.39 In 1969 J. Stephen Sherwin devoted one-fourth of his Four Problems in Teaching Eng-lish: A Critique of Research (Scranton, Penn.: International Textbook, 1969) to 37. Boraas, "Formal English Grammar and the Practical Mastery of English." Diss. University of Illinois, 1917; Asker, "Does Knowledge of Grammar Function?" School and Society, 17 (27 January 1923), 109-111; Ash, "An Experimental Evaluation of the Stylistic Approach in Teaching Composi-tion in the Junior High School," Journal of Experimental Education, 4 (1935), 54-62; and Frogner, "A Study of the Relative Efficacy of a Grammatical and a Thought Approach to the Improvement of Sentence Structure in Grades Nine and Eleven," School Review, 47 (1939), 663-675. 38. "Research on Grammar and Usage and Its Implications for Teaching Writing," Bulletin of the School of Education, Indiana University, 36 (1960), pp. 13-14. 39. Meckel, "Research on Teaching Composition and Literature," in Handbook of Research on Teaching, ed. N. L. Gage (Chicago: Rand McNally, 1963), pp. 966-1006.

Grammar, Grammars, and the Teaching of Grammar the grammar issue, concluding that "instruction in formal grammar is an ineffec-tive way to help students achieve proficiency in writing" (p. 135). Some early experiments in sentence combining, such as those by Donald R. Bateman and Frank J. Zidonnis and by John C. Mellon, showed improvement in measures of syntactic complexity with instructioni n transformational grammark eyed to sen-tence combining practice. But a later study by Frank O'Hare achieved the same gains with no grammar instruction, suggesting to Sandra L. Stotsky and to Rich-ard Van de Veghe that active manipulation of language, not the grammar unit, explained the earlier results.40 More recent summaries of research-by Eliz-abeth I. Haynes, Hillary Taylor Holbrook, and Marcia Farr Whiteman-support similar conclusions. Indirect evidence for this position is provided by surveys re-ported by Betty Bamberg in 1978 and 1981, showing that time spent in grammar instruction in high school is the least important factor, of eight factors examined, in separating regular from remedial writers at the college level.41 More generally, Patrick Scott and Bruce Castner, in "Reference Sources for Composition Research: A Practical Survey" (CE, 45 [1983], 756-768), note that much current research is not informed by an awareness of the past. Put simply, we are constrained to reinvent the wheel. My concern here has been with a far more serious problem: that too often the wheel we reinvent is square. It is, after all, a question of power. Janet Emig, developing a consensus from composition research, and Aaron S. Carton and Lawrence V. Castiglione, devel-oping the implications of language theory for education, come to the same con-clusion: that the thrust of current research and theory is to take power from the teacher and to give that power to the learner.42A t no point in the English curric-ulum is the question of power more blatantly posed than in the issue of formal grammar instruction. It is time that we, as teachers, formulate theories of lan-guage and literacy and let those theories guide our teaching, and it is time that we, as researchers, move on to more interesting areas of inquiry. 40. Bateman and Zidonis, The Effect of a Study of Transformational Grammar on the Writing of Ninth and Tenth Graders (Urbana, Ill.: NCTE, 1966); Mellon, Transformational Sentence Combin-ing: A Method for Enhancing the Development of Fluency in English Composition (Urbana, Ill.: NCTE, 1969); O'Hare, Sentence-Combining: Improving Student Writing without Formal Grammar Instruction (Urbana, Ill.: NCTE, 1971); Stotsky, "Sentence-Combining as a Curricular Activity: Its Effect on Written Language Development," RTE, 9 (1975), 30-72; and Van de Veghe, "Research in Written Composition: Fifteen Years of Investigation," ERIC 157 095. 41. Haynes, "Using Research in Preparing to Teach Writing," English Journal, 69, No. 1 (1978), 82-88; Holbrook, "ERIC/RCS Report: Whither (Wither) Grammar," Language Arts, 60 (1983), 259-263; Whiteman, "What We Can Learn from Writing Research," Theory into Practice, 19 (1980), 150-156; Bamberg, "Composition in the Secondary English Curriculum: Some Current Trends and Directions for the Eighties," RTE, 15 (1981), 257-266; and "Composition Instruction Does Make a Difference: A Comparison of the High School Preparation of College Freshmen in Regular and Re-medial English Classes," RTE, 12 (1978), 47-59. 42. Emig, "Inquiry Paradigms and Writing," CCC, 33 (1982), 64-75; Carton and Castiglione, "Ed-ucational Linguistics: Defining the Domain," in Psycholinguistic Research: Implications and Ap-plications, ed. Doris Aaronson and Robert W. Rieber (Hillsdale, N.J.: Lawrence Erlbaum, 1979), pp. 497-520. 127