



Names in Search of a Concept: Maturity, Fluency, Complexity, and Growth in Written Syntax

Lester Faigley

College Composition and Communication, Vol. 31, No. 3. (Oct., 1980), pp. 291-300.

Stable URL:

<http://links.jstor.org/sici?sici=0010-096X%28198010%2931%3A3%3C291%3ANISOAC%3E2.0.CO%3B2-Z>

College Composition and Communication is currently published by National Council of Teachers of English.

Your use of the JSTOR archive indicates your acceptance of JSTOR's Terms and Conditions of Use, available at <http://www.jstor.org/about/terms.html>. 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/journals/ncte.html>.

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.

The JSTOR Archive is a trusted digital repository providing for long-term preservation and access to leading academic journals and scholarly literature from around the world. The Archive is supported by libraries, scholarly societies, publishers, and foundations. It is an initiative of JSTOR, a not-for-profit organization with a mission to help the scholarly community take advantage of advances in technology. For more information regarding JSTOR, please contact support@jstor.org.

Names in Search of a Concept: Maturity, Fluency, Complexity, and Growth in Written Syntax

Lester Faigley

One offshoot of the recent college sentence-combining experiments has been the renewal of the debate over what constitutes a "mature" style, a topic of polemic discussion a decade ago.¹ The best known experiments testing sentence combining in college—the Daiker, Kerek, and Morenberg study at Miami University² and the Stewart study at the University of New Brunswick³—report gains in "syntactic maturity" as indicated by increases in clause length and T-unit length among students who were formally taught sentence-combining techniques. Three primary assumptions underlie this research: 1) T-unit length and, in particular, clause length are reliable measures of the syntactic skills of older writers; 2) the syntactic maturity of college students is below a desirable level; and 3) increased syntactic maturity leads to increased writing effectiveness.

The first assumption is based on the research of Kellogg Hunt.⁴ Hunt's application of transformational grammar to the analysis of syntactic development enabled him to explain how children increasingly use embedding and deletion transformations to pack more information into less space as they advance through the grades. However, it was Hunt's work in identifying indices of maturity—especially the T-unit—that brought his research wide circulation. He computed the mean clause and T-unit lengths and the mean clause per T-unit ratios for groups of students in the fourth, eighth, and twelfth grades, finding that together these measures mark regular stages of development in writing, stages confirmed by several subsequent studies of the prose of schoolchildren.⁵

Hunt later took the same measurements from eighteen expository essays appearing in *Harper's* and *The Atlantic* as "a target for less accomplished persons to aim toward."⁶ Hunt thought the same processes of embedding that he had observed through the grades account for the added clause and T-unit length in the prose of skilled adults. He concluded "that if the average high school graduate is ever to write like a skilled adult, he has nearly as much yet

Lester Faigley is Assistant Professor of English at the University of Texas at Austin. He is currently doing research on editorial decision-making, text structures, and measurements for the evaluation of writing. He is also collaborating on a large evaluation study of the University of Texas writing program.

to learn about how to embed more clauses as he learned in all his public school years.”⁷ College sentence-combining researchers cite Hunt’s research as the justification for extending sentence-combining instruction to college students. The assumption that beginning college students are deficient in syntactic skills, often expressed as a “syntactic gap,” presumes a continuum of syntactic development from first themes of young children to the published essays of skilled adults. Hunt’s figures are usually offered as the dimensions of this gap. Morenberg, Daiker, and Kerek, in their discussion of the Miami University experiment, write:

Though the mean clause length of entering Miami freshmen was slightly above Hunt’s ‘normative’ figure for high school seniors (8.60), it was still nearly three words from that of skilled adults (11.50). The experimental group’s gain of .89 bridged almost one-third of that distance.⁸

Hunt’s normative measurements have supplied both the rationale for college sentence-combining experiments and the yardstick for gauging success.

Several sentence-combining studies, beginning with O’Hare,⁹ also report gains in subjectively judged writing quality. Daiker, Kerek, and Morenberg found that college students who practiced sentence combining wrote papers rated significantly higher on a holistic scale than did a comparable group of students taught by a traditional method. Researchers have assumed, though they have been unable to prove, that increases in syntactic maturity and overall writing quality are directly related. I decided to test this third assumption as part of an experiment on the effect of generative rhetoric in freshman English that I conducted last year.¹⁰ All quantitative factors, including Hunt’s developmental measures and other factors such as total length, were considered as predictors of overall quality in a multiple regression analysis, a statistical procedure for estimating a dependent variable, in this case the holistic rating of quality, from a series of independent variables. This analysis revealed that Hunt’s three indices of maturity—words per T-unit, words per clause, and clauses per T-unit—together predict less than two percent of the variance in holistic scores. Clause length, the index Hunt found most indicative of maturity in older writers, proved to be of little value in predicting how readers would assess overall quality. This finding is similar to the conclusions of Nold and Freedman’s experiment concerning readers’ responses to essays.¹¹ In fact, Daiker, Kerek, and Morenberg conducted a similar regression analysis after they had reported their initial results, discovering that Hunt’s indices of maturity explain just four percent of the variance in holistic scores in their experiment.¹² If the goal of college writing experiments testing pedagogical methods is to improve the quality of student compositions, increases in the level of syntactic maturity, at least as defined by Hunt, appear to be of little consequence.

Other problems call into question the reliability of using mean T-unit and mean clause length as indices of the syntactic skills of older writers. Some of

these are minor, such as different procedures used by different researchers for counting words. For instance, whether or not phrasal proper nouns count as one word makes a considerable difference in word counts. Depending on which definition is applied, the sentence *New York City is the largest city in the United States of America* contains eight or thirteen words. Nonstandard prose presents other less easily resolved difficulties to T-unit analysis. How does one analyze the following example quoted by Shaughnessy: *There is always before entering an academic high school you could see what special vocational and technical high school have to offer you?*¹³ Another troubling issue is the consistency of clause length and T-unit length as measures of syntactic maturity. Witte and Davis found that beginning college freshmen show instability in T-unit length on repeated samples within discourse modes.¹⁴ This research raises still other questions: Is unstable T-unit length due to lack of practice in a given discourse mode or does it reflect the influences of rhetorical variables such as tone? Do skilled adults show similar instability in T-unit length? What length prose samples are necessary to obtain stable T-unit lengths for older writers?

These problems are symptomatic of general misunderstanding and misuse of the terms *maturity*, *fluency*, *complexity*, and *growth* in discussions of written syntax. To begin with, the idea of *maturity* in writing takes on a very different meaning after a writer leaves high school. No one has satisfactorily defined what adult competence in writing consists of or what level of competence college students can reasonably be expected to achieve. Hunt makes clear in his monograph that his figures for skilled adults are only suggestive of possible further development after the grades. Nevertheless, these figures for skilled adults, 20.3 words per T-unit and 11.5 words per clause, frequently are quoted as skilled adult norms. Though these figures may be roughly accurate for the type of expository essays that appear in *Harper's* and *The Atlantic*, and in many of the anthologies that we use, such essays hardly represent the world of written discourse or even the nonfiction prose of skilled adults.

Rhetorical considerations of audience, subject, and purpose cause wide fluctuation in the syntactic profiles of essays, so much so that a small but noticeable percentage of anthologized essays contain T-unit and clause lengths comparable to the means of in-class essays of high school seniors.¹⁵ An example of pronounced variation occurs in prose samples with the aim of instruction—items such as cookbooks, repair manuals, other “how-to-do-it” books, contest blanks, workbooks, instructions on packages, registration forms, and guides to reference books. From this group I took several thousand-word selections, among them one from the recipes in *The New York Times Cookbook* and another from the “Guide to the Dictionary” in *The American Heritage Dictionary*. The recipes in *The New York Times Cookbook* contain mean T-unit and clause lengths below seven words (6.5 and 5.8), less than Hunt’s figures for *fourth* graders, yet I cannot see how this prose can be

called something other than skilled adult writing, even if it does lie at one extreme of published prose. Recipes in other cookbooks I examined yielded mean figures similar to *The New York Times Cookbook*, demonstrating the authors' awareness of purpose and audience needs. As a novice cook I must refer to the cookbook for each step of a recipe, memorize that step, return to the stove or counter, and perform the appropriate task, a process the cookbook author facilitates by phrasing each statement in the most straightforward way possible. The dictionary guide also gives an explicit set of instructions, but this passage has a mean T-unit length of 17.8 words and a mean clause length of 11.4 words, the last figure close to Hunt's mean for skilled adults. The author of the guide does not expect that the reader will need to recall the verbatim content in order to use the dictionary, but expects the reader to store the information in long-term memory.

At the other extreme of published writing from the recipes is grammatical prose that is virtually unreadable for syntactic reasons alone. Excessive length is one of the characteristics of the bureaucratic style, a style with which we are all too familiar. To avoid taking a cheap shot at one of our favorite targets, I computed Hunt's indices for one of Richard Altick's clever parodies of the bureaucratic style, arriving at figures of 27.7 words per T-unit and 14.9 words per clause.¹⁶ Readable prose with comparable "syntactic maturity" can be written, but, as Kinneavy has warned, we should sense when syntactic maturity becomes syntactic senility.¹⁷

Across discourse modes and aims, of course, variation in T-unit and clause length becomes even more evident. Writers of all ages adjust their syntax to some degree to suit the rhetorical context. I asked a class of college students to write essays with different discourse aims on three successive days. The means for the persuasive sample were nearly five words per T-unit and one and a half words per clause higher than the means for the expressive sample.¹⁸ Several researchers have noted variation in sentence length, T-unit length, and clause length attributable to change in mode of discourse at other age levels.¹⁹ Single numbers that represent levels of "maturity" in older writers distort the composite nature of writing abilities.

John Mellon recognized early some of the problems accompanying the idea of *syntactic maturity*, and he chose instead the term *syntactic fluency*, defining fluency as the diversity of sentence types calculated in terms of the frequency of nominal and relative clauses and phrases.²⁰ *Fluency*, however, is used often in connection with Hunt's indices of maturity, indices that primarily measure length—not variety. For example, bureaucratic prose, high in T-unit length and clause length, typically is not varied in sentence structure. To call such prose "fluent" is a misnomer. Fluency in written language carries connotations of facility, ease, and grace, qualities achieved only in part by sentence structure. A German linguist, Roland Harweg, argues that descriptive stylistics should concentrate on elements that produce a fluent or "good" style, not those elements that mark particular texts as deviant from the pre-

sumed stylistic norms of a given period.²¹ Rather stylistics should be able to elucidate the positive or negative effect of such "deviant" elements in a particular text. If we think of a fluent style as synonymous with a flowing style, then matters above the sentence level, such as the linkage between sentences, become predominantly important. Harweg believes stylistics must replace sentence grammars with text grammars in order to explain the effectual ingredients of fluency.

Another term which has been a source of confusion is *complexity*. *Syntactic complexity* is a meliorative term for those who wish to enhance syntactic maturity, and a pejorative term for some, especially teachers of technical writing, who find excessive complexity the bane of older writers. Complexity has been the focus of much recent research in cognitive psychology that examines how readers process written language. The impetus for this research also came from Chomsky's theories of transformational grammar, which implied the existence of mental processes like transformations in the coding and decoding of language. Psychologists subsequently began to test the hypothesis that the transformations in Chomsky's theories mirrored the psychological processes of language comprehension. This hypothesis came to be known as the "derivational theory of complexity," and early experiments supported its validity. Typical experiments attempted to prove that the time subjects need to comprehend a sentence is related directly to the number of transformations underlying that sentence.²²

But in the last few years the derivational theory of complexity has been soundly rejected. Fodor, Bever, and Garrett demonstrated that some transformations produce sentences easier to comprehend than less transformationally complex counterparts.²³ Deletion transformations often bring this result. *Jack jumps higher than Jill* is easier to understand than *Jack jumps higher than Jill jumps*, even though it requires an additional transformation. The adjective derivation presented in standard transformational theory supplies another good example, where *The small boy threw the red ball* is more complex than *The boy who is small threw the ball which is red*, but certainly the former is easier to comprehend.

Psychologists have now turned to the study of meaning in their effort to understand how readers process and retain information in prose texts. A number of subtle and complicated issues confront researchers in this area, among them how to represent meaning in texts. Psychologists commonly represent abstract units of meaning as propositions. The sentence *The clever, old fox ate the farmer's chickens* is said to be derived from a text base consisting of four propositions, which can be represented in simplified notation: (CLEVER, FOX), (OLD, FOX), (ATE, FOX, CHICKENS), (FARMER, CHICKENS). Kintsch and Keenan have demonstrated that the time subjects take to read a text is proportionate to the number of propositions a text contains rather than the number of words.²⁴ Subjects in this experiment were given sets of sixteen-word sentences derived from text bases containing from

four to nine propositions. In a typical example students had to study a four-proposition sentence for about eleven seconds to correctly recall its content, but they needed seventeen seconds to remember an eight proposition sentence. Subsequent research using longer stretches of prose has established several other variables in discourse comprehension. The number of propositions, the amount of new information, and the relationships among propositions are stronger determinants of complexity than factors such as T-unit length. Researchers in composition are beginning to explore some of the kinds of complexity that psychologists have uncovered. For example, de Beaugrande has investigated how stylistic changes affect readability and recall of a prose passage.²⁵

The final term I wish to discuss is *growth*, a term loaded with many indefinite connotations. Researchers in sentence combining describe as growth increases in syntactic maturity measured by T-unit length and clause length. O'Hare claims five years of growth for his seventh-grade sentence combiners according to Hunt's table of maturity.²⁶ But O'Hare does not explain whether this "growth" simply refers to the student's ability to write longer sentences or implies a more significant kind of cognitive development. Even less clear is how claims of growth among older writers should be interpreted. Hunt's summary table shows wide differences between twelfth graders and skilled adults in T-unit and clause length, wider even than the differences between twelfth graders and fourth graders. The table, though, says very little about the nature of these differences, particularly for older writers. Writers do use increasing numbers of transformations as they become more proficient in composition, but this truism overlooks two important considerations.

The first is that skilled adult writers begin the writing stage of the composing process with more so-called kernels to transform into longer sentences, that many more propositions as well as more transformations underlie the sentences of skilled adults, and that skilled adults simply see more—more detail, more connections, more aspects from more perspectives. To neglect this is to neglect the role of invention.

Second, skilled adults depend on several transformations rarely found in the prose of schoolchildren. A few of these transformations greatly influence Hunt's indices, especially ones that produce nonrestrictive reduced clauses such as participial phrases and appositives, constructions that fatten clause length according to Hunt's definition because they do not contain finite subjects and verbs. I found that nearly all the difference in clause and T-unit length between a set of essays written by college freshmen and a group of anthologized essays by skilled adults is caused by increased use of nonrestrictive modifiers.²⁷ Through essays representing all aims of discourse in anthologized nonfiction prose of skilled adults, a good ball-park estimate is that about thirty percent of total words occur in free modifiers, while for college freshmen the percentage is about half that.²⁸ Excluding nonrestrictive mod-

ifiers, the mean T-unit lengths of groups of college freshmen and skilled adults are virtually identical, 12.2 words for the freshmen and 12.4 words for the anthologized writers.

Freshmen and skilled adults place about the same percentage of total words in nonrestrictive modifiers before the main clause, thus the "growth" in T-unit length and clause length must come through the addition of nonrestrictive modifiers within and after the main clause. Christensen, of course, advocated the use of nonrestrictive modifiers, and college experiments testing sentence combining and generative rhetoric have largely followed his teachings. The gains in T-unit length and clause length of the treatment group in the Faigley experiment in generative rhetoric resulted exclusively from an increased number of words in final nonrestrictive modifiers.²⁹ Additional nonrestrictive modifiers likely produced the gains in clause length among students taught sentence combining in the Stewart and the Daiker, Kerek, and Morenberg experiments as well. Stewart relied upon Christensen's materials directly, while the Miami University study used Strong's *Sentence Combining: A Composing Book*, a text heavily influenced by Christensen's ideas.

Mellon argues that growth in clause and T-unit length caused by nonrestrictive modifiers is not the same thing as growth produced by restrictive modifiers such as adjectives, prepositional phrases, and relative clauses within dominant noun phrases.³⁰ His point is that the operations required to write nonrestrictive modifiers can be quickly taught to older students. Such structures, though semantically subordinate, represent little more than surface structure ellipsis. While these structures are essential to an understanding of stylistic elements in modern prose, in developmental terms they cannot be compared to the slow rise in restrictive modification occurring through the grades accompanying the writer's expanding conceptual knowledge. Structures like absolutes rarely appear in the prose of beginning college freshmen, yet it is no difficult task to show a student that *The woman looked anxious before the exam. Her feet were tapping nervously under the desk* can be joined by deleting the *were* in the second sentence and changing the period to a comma to form *The woman looked anxious before the exam, her feet tapping nervously under the desk*. As a consequence the T-unit and clause length of this sentence are doubled.

It comes as no surprise, therefore, that Stewart reports a group of college freshmen gained over four words per T-unit and nearly three words per clause after only six weeks of sentence-combining instruction.³¹ I suspect that twelve class hours would be enough to obtain statistically significant increases in clause and T-unit length from an average group of college freshmen, perhaps as few as two hours for an advanced group. And the method probably wouldn't matter that much: either sentence combining, which supplies all the content; or generative rhetoric, which supplies part of the content; or imitation, which supplies none of the content, should do the job. Dutiful students can add details in nonrestrictive modifiers to nearly every statement

they write if they sense the teacher is going to reward them for doing so. Johnny, who walks in the first day asking, "What do I have to do to get an A in the course so I can get into med school?" is very eager, if not easy, to please. How long such increases might last, though, is another question yet to be answered.

But a more germane issue is whether or not the preoccupation with syntactic growth has led to general misunderstanding of syntactic approaches to composition. The elaborate tables for T-unit and clause length factors published in the reports of college experiments to date show convincingly that writing habits of college students can be changed, at least temporarily, in a semester or less of instruction, but they do not tell us much about why the overall writing quality of these same students improves as well. We have often failed to recognize that sentence combining is only a technique. Sentence combining succeeds not because it mysteriously enriches some cognitive process but because teachers using sentence combining have conveyed to students certain traditional rhetorical principles characteristic of good writing. Longer T-units and clauses did not influence raters of quality in the Miami University experiment. Rather students in sentence-combining sections apparently learned more thoroughly principles such as emphasis, supporting detail, and stylistic flavor than did comparable students in sections taught by conventional methods.

Students who learn that sentences like *Ann stepped slowly into the disco. She looked at everyone closely* can be combined as *Ann stepped into the disco, looking at everyone closely* consequently discover more than the utility of the present participle transformation. They learn that simultaneous events can be linked directly in sentences, but moreover that by shifting the participial phrase to the beginning of the sentence, *Looking at everyone closely, Ann stepped into the disco*, a writer can emphasize that detail and even change the reader's interpretation of the sequence of these actions. Once students make these discoveries, they can generalize them to larger units of discourse—rearranging, adding, and deleting whole sentences and paragraphs to achieve their purpose. Only the weakest writers learn just the syntactic operations without becoming conscious of their rhetorical significance. More able writers intuitively grasp the order inherent in these constructions.

The use of T-unit and clause length measures to explain the effect of sentence-combining instruction in college is at best misleading. Counts of T-unit length and clause length tell us nothing about a writer's skill in executing rhetorical strategies. These measurements are based on concepts from grammars designed to study one sentence at a time. Sentence grammars are capable of yielding cumulative data characterizing an individual text, making possible certain relative stylistic judgments such as Hunt's normative scale of syntactic maturity. But many features of written discourse remain that sentence grammars cannot describe. Much of what is taught in a college writing class—how to arrange information, to construct arguments, to place main

ideas for emphasis, and to make transitions between sentences and paragraphs, just to name a few—cannot be defined in terms of sentence grammars.

Models for the representation of meaning in texts, such as the simple propositional model described earlier in this essay, can reveal certain types of complexity inaccessible to sentence grammars. Meaning in a text can be represented as a hierarchical structure of propositions, showing, for instance, that readers frequently must infer relationships such as causation. These models, however, remain of limited usefulness to the study of writing development because they do not explain important conditions such as *coherence*, nor do they define the systematic relationships of a given text to its *context*.³² The effectiveness of a prose text depends in large part on its appropriateness to the communicative context. The description of the appropriateness of a given piece of prose requires *pragmatic* rules that specify the general knowledge and assumptions about discourse structure of the particular group of readers whom the text addresses. Furthermore, other kinds of considerations must be taken into account outside of linguistic theory that is aimed at describing what is acceptable in a given language. One example are those structures that determine types of discourse, such as a technical report. Such structures and functions can be defined only in relation to the situational and cultural contexts of a particular text. Until researchers can devise measurements sensitive to these kinds of relationships, the notion of maturity in writing will remain a very elusive concept.

Notes

1. See Joseph Williams, "On Defining Complexity," *College English*, 40 (1979), 595-609. Important statements in the earlier debate are Francis Christensen, "The Problem of Defining a Mature Style," *English Journal*, 57 (1968), 572-579, and John Mellon's reply to Christensen in the Epilogue of *Transformational Sentence-Combining: A Method of Enhancing the Development of Syntactic Fluency in English Composition* (Urbana, Ill.: National Council of Teachers of English, 1969), pp. 77-85.

2. Donald Daiker *et al.*, "Sentence-Combining and Syntactic Maturity in Freshman English," *College Composition and Communication*, 29 (1978), 36-41; Andrew Kerek *et al.*, "The Effects of Intensive Sentence Combining on the Writing Ability of College Freshmen," in *Linguistics, Stylistics, and the Teaching of Writing*, ed. Donald McQuade (Akron, Ohio: University of Akron, 1979), pp. 81-90; Max Morenberg *et al.*, "Sentence Combining at the College Level: An Experimental Study," *Research in the Teaching of English*, 12 (1978), 245-256.

3. "Freshman Sentence Combining: A Canadian Project," *Research in the Teaching of English*, 12 (1978), 257-268.

4. *Grammatical Structures Written at Three Grade Levels* (Champaign, Ill.: National Council of Teachers of English 1965); *Syntactic Maturity in Schoolchildren and Adults*, Monographs of the Society for Research in Child Development, No. 134 (Chicago: University of Chicago Press, 1970).

5. See Roy C. O'Donnell, "A Critique of Some Indices of Syntactic Maturity," *Research in the Teaching of English*, 10 (1976), 31-38.

6. *Grammatical Structures*, p. 55.

7. *Syntactic Maturity*, p. 20.

8. "Sentence Combining at the College Level," 253.
9. *Sentence Combining: Improving Student Writing without Formal Grammar Instruction* (Urbana, Ill.: National Council of Teachers of English, 1973). A bibliography of sentence-combining experiments through 1978 is in *Sentence Combining and the Teaching of Writing*, ed. Donald Daiker, Andrew Kerek, and Max Morenberg (Akron, Ohio: University of Akron, 1979), pp. 216-227.
10. "The Influence of Generative Rhetoric on the Syntactic Maturity and Writing Effectiveness of College Freshmen," *Research in the Teaching of English*, 13 (1979), 197-206.
11. "An Analysis of Readers' Responses to Essays," *Research in the Teaching of English*, 11 (1977), 164-174.
12. Max Morenberg, "The Elusive Nature of the Relationship between Syntactic Maturity and Writing Quality," paper read at the Conference on College Composition and Communication in Minneapolis, April 1979.
13. *Errors and Expectations* (New York: Oxford, 1977), p. 72.
14. "The Stability of T-unit Length in the Written Discourse of College Freshmen: A Preliminary Study," *Research in the Teaching of English*, forthcoming.
15. Lester Faigley, "Another Look at Sentences," *Freshman English News*, 7 (1979), 18-21.
16. *Preface to Critical Reading*, 5th ed. (New York: Holt, Rinehart and Winston, 1969), pp. 80-81.
17. "Sentence Combining in a Comprehensive Language Framework," in *Sentence Combining and the Teaching of Writing*, pp. 60-76.
18. Persuasive sample: 19.9 words per T-unit, 1.9 clauses per T-unit, 10.6 words per clause; Expressive sample: 15.1 words per T-unit, 1.7 clauses per T-unit, 9.2 words per clause (N=20).
19. J. C. Seegars, "The Form of Discourse and Sentence Structure," *Elementary English*, 10 (1933), 51-54; L. V. Johnson, "Children's Writing in Three Forms of Composition," *Elementary English*, 44 (1967), 265-269; L. Ramon Veal and Murray Tillman, "Mode of Discourse Variation in the Evaluation of Children's Writing," *Research in the Teaching of English*, 5 (1971), 37-45; Christine San Jose, "Grammatical Structures in Four Modes of Writing at Fourth-Grade Level," Diss. Syracuse University 1972; Marion Crowhurst and Gene L. Piche, "Audience and Mode of Discourse Effects on Syntactic Complexity in Writing at Two Grade Levels," *Research in the Teaching of English*, 13 (1979), 101-109.
20. *Transformational Sentence-Combining*, p. 16.
21. "Stilistik und Textgrammatik," *Zeitschrift für Literaturwissenschaft und Linguistik*, 5 (1972), 71-81; "Text Grammar and Literary Texts," *Poetics*, 9 (1973), 65-91.
22. A highly readable survey of research on the derivational theory of complexity is in Walter Kintsch, *Memory and Cognition* (New York: Wiley, 1977), pp. 310-312.
23. *The Psychology of Language* (New York: McGraw-Hill, 1974).
24. "Reading Rate and Retention as a Function of the Number of Propositions in the Base Structure of Sentences," *Cognitive Psychology*, 5 (1973), 257-274.
25. "Psychology and Composition," *College Composition and Communication*, 30 (1979), 50-57.
26. *Sentence Combining*, p. 56.
27. "Another Look at Sentences," 20.
28. Christensen, "The Problem of Defining a Mature Style," 577; Anthony Wolk, "The Relative Importance of the Final Free Modifier: A Quantitative Analysis," *Research in the Teaching of English*, 4 (1970), 67; "Another Look at Sentences," 19-20.
30. "Issues in the Theory and Practice of Sentence Combining: A Twenty-Year Perspective," in *Sentence Combining and the Teaching of Writing*, pp. 1-38.
31. "Freshman Sentence Combining."
32. These and other text conditions are explained in detail in Teun A. van Dijk, *Text and Context* (New York: Longman, 1977).

LINKED CITATIONS

- Page 1 of 1 -



You have printed the following article:

Names in Search of a Concept: Maturity, Fluency, Complexity, and Growth in Written Syntax

Lester Faigley

College Composition and Communication, Vol. 31, No. 3. (Oct., 1980), pp. 291-300.

Stable URL:

<http://links.jstor.org/sici?sici=0010-096X%28198010%2931%3A3%3C291%3ANISOAC%3E2.0.CO%3B2-Z>

This article references the following linked citations. If you are trying to access articles from an off-campus location, you may be required to first logon via your library web site to access JSTOR. Please visit your library's website or contact a librarian to learn about options for remote access to JSTOR.

Notes

¹ **Defining Complexity**

Joseph M. Williams

College English, Vol. 40, No. 6. (Feb., 1979), pp. 595-609.

Stable URL:

<http://links.jstor.org/sici?sici=0010-0994%28197902%2940%3A6%3C595%3ADC%3E2.0.CO%3B2-1>

¹ **The Problem of Defining a Mature Style**

Francis Christensen

The English Journal, Vol. 57, No. 4. (Apr., 1968), pp. 572-579.

Stable URL:

<http://links.jstor.org/sici?sici=0013-8274%28196804%2957%3A4%3C572%3ATPODAM%3E2.0.CO%3B2-8>

² **Sentence-Combining and Syntactic Maturity in Freshman English**

Donald A. Daiker; Andrew Kerek; Max Morenberg

College Composition and Communication, Vol. 29, No. 1. (Feb., 1978), pp. 36-41.

Stable URL:

<http://links.jstor.org/sici?sici=0010-096X%28197802%2929%3A1%3C36%3ASASMIF%3E2.0.CO%3B2-V>

NOTE: *The reference numbering from the original has been maintained in this citation list.*