This study is concerned with increasing the rate at which children progress toward more highly differentiated sentence structure. The study recommends sentence-combining practices that will accelerate this progress. The two main purposes of grammar study have been to prevent errors in writing and to present the full range of sentence structures available to the mature writer. Virtually all of the research studies of the effects of grammar on writing have been error-oriented studies. The findings of 15 important studies make clear that oral drills on right and wrong forms are superior to whole-class grammar and usage study. In addition, it has been found that the sentence-combining exercises are equally effective for boys and girls, low starters and high starters in syntactic fluency, and urban and suburban students. (CK)
A No-Grammar Approach to Sentence Power: John C. Mellon's Sentence-Combining Games

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The teacher of English looks thirstily but hopefully for effective ways to nurture growth toward mature sentence structure. If he has not succumbed to exasperation and impatience and given up entirely, he probably is using a variety of approaches that work with some students some of the time: Christensen's rhetoric program or some other approach to sentence analysis, a functional approach to grammar study, usage drills and exercises, error-correction sentence exercises, to list a few. Mellon's study offers no golden solution to this problem, but it does provide convincing evidence of the positive effect on the elaboratedness of sentence structure (Mellon terms it 'syntactic fluency') of one single activity, a sentence-combining routine based on the generative-transformational model of syntax.

Let me be clear that the findings of this study have little to say about a writing or composition program. The findings speak only to the limited problem of increasing the rate at which children progress toward more highly differentiated, hence more adult-like sentence structure. The study

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is concerned with sentences, not with whole pieces of discourse. It recommends sentence-combining practice that, if done regularly, will accelerate growth toward syntactic maturity. Mellon thinks of this activity as a "game," an optional part of the students’ "linguistic studies," and not a part of their composition course, where the concerns ought to be much larger than the sentence. As James Moffett argues, "The sentence has to be put in its place." So we are talking about a study of sentences, not of compositions. Even with this limited focus, the study is still a very significant one.

Besides its findings, I value the report highly for its chapter reviewing the research on grammar and writing. Many secondary English teachers remain quite confused by the grammar-writing controversy. Some teachers still spend two-thirds of the class time in a composition course doggedly pushing students through the drills and exercises in a grammar and usage text. Mellon’s enlightening review goes like this: Over the years the two main purposes of grammar study have been to prevent errors in writing and to present the full range of sentence structures available to the mature writer. However, virtually all of the research studies of the effects of grammar on writing have been error-oriented studies. The findings of fifteen important studies make clear that oral drills on right and wrong forms, the direct or "incidental" approach to student errors, and individualized attention to errors are all superior to whole-class grammar and usage study. Only one study found that grammar study improved correctness, but the findings are "quite meaningless" because of inadequate design and reporting. By contrast, studies of the effect of grammar study on syntactic fluency have been very rare. Before the present study, only one other explicitly tests a syntactic claim, and it is the same flawed study mentioned above. Therefore, there is no evidence in any good research anywhere that the study of grammar (whatever kind it is) and usage rules fosters correctness and syntactic maturity in a fashion superior to that of far less time-consuming, more informal and naturalistic procedures.

To change back to my own voice, let me summarize and emphasize by saying that studying grammar, memorizing usage rules, and applying both to somebody else’s workbook sentences has always been a waste of time, and most students have always known it. We need, I think, to see grammar study as part of broadly-conceived linguistic studies. Grammar study, the study of the sentence and its parts, should not crowd out language history, etymology, dialectology, socio-linguistics and psycho-linguistics. Language study is one of the humanities, but only if it includes
more than syntax and morphology. Furthermore, language study should not be allowed to replace or crowd out the writing or composition program. Students can produce whole pieces of discourse in a wide variety of modes and they can develop syntactic maturity without any conscious attention to the subject matter and concepts of linguistics.

The study under review here does include a few months of transformational grammar study for the experimental subjects, but Mellon makes clear that students can play his sentence-combining game without grammar training. He advocates this no-grammar approach with upper elementary as well as with secondary students. He goes out of his way to prevent attempts to use his findings of increased syntactic fluency as a justification for grammar study.

Now to the design of the study and its specific findings. The 247 seventh-grade subjects came from four urban and suburban schools in the Boston area representing lower-middle, middle-middle and upper-middle classes. One hundred students were in the experimental group (sentence-combining exercises), one hundred in the control group (traditional grammar and parsing exercises), and forty-seven in the placebo group (no grammar, but extra instruction in composition and literature). On the basis of STEP, IQ, and reading scores the groups were equal. Eleven teachers, two of them men, taught the classes in the study. The written language sample itself came from nine pre-treatment compositions written in September and nine post-treatment ones on parallel topics written in June. The nine topics were in three modes of discourse: narrative, descriptive, expository. The writing was segmented into T-units (independent clauses with modifiers, rather than the orthographic sentence, following Hunt), and the first ninety T-units of the pre and post compositions were analyzed in a variety of ways, primarily to reveal sentence embedding represented in relativized and nominalized transforms, maximum depth of embedding and frequency of clustered modifications—factors shown by Hunt to be criterial of growth of structural elaboratedness. A small sub-sample of compositions was graded for "overall quality."

Let me illustrate the sentence-combining exercises with three examples from Appendix B in the study, two easy ones and a hard one. The student embeds the indented form in the form just above. The first line is always the main clause.

Problem:
SOMETHING seemed to suggest SOMETHING.
Bill finished his lesson in less than an hour. (T:fact) *
He had received special help from another student. (T:fact)

Student writes out:
The fact that Bill finished his lessons in less than an hour seemed
to suggest that he had received special help from another student.

Problem:
SOMETHING would be almost unbearable.
The rocket fails in its final stage. (T:infin) **

Student writes out:
For the rocket to fail in its final stage would be almost unbearable.

Problem:
The office building towered above the tenements.
The building was gleaming.
The building was new.
The building was rising high in the sky.
The tenements were decrepit.
The tenements were brick.
The tenements were in the slums.
The slums were surrounding this symbol of prosperity.
The prosperity was supposedly universal.
The prosperity was American.

Student writes out:
The gleaming new office building rising high into the sky towered
above the decrepit brick tenements in the slums surrounding this symbol
of supposedly universal American prosperity.
The main results of the study are quite remarkable. On all twelve
factors of syntactic fluency used in the main analysis the experimental
group was superior to the control group at a level of significance at or
beyond the .01 level. In other words, there is a very low probability (less

* Here, the symbol T means Transformation. The term fact names the particular transformation to be applied by the pupil, in this case a transformation which converts the statement "Bill finished his lesson in less than an hour" into the nominal form "The fact that Bill finished his lesson in less than an hour."

(EDITOR)

** Again, the symbol T means Transformation, and the term infin abbreviates the name of the particular transformation to be applied, in this case an infinitive transformation. This leads to the insertion of the words For and to and the form-change from fails to fail.
than one per cent) that the differences in syntactic fluency observed between the two groups could have occurred by chance. Since the study is so well-designed, we can be fairly certain that the differences really were an effect of the experimental treatment, the sentence-combining exercises. Examined against a baseline of expected growth in syntactic fluency from Hunt’s study (Grammatical Structures Written at Three Grade Levels, N. C. T. E. Research Report Number 3), the experimental group achieved from two to three years of growth in one year.

Immediately we wonder whether this trend could be sustained over a longer period, say three years. If it could, then we might anticipate that a program of sentence-combining exercises in Grades 7-9 would give us incoming tenth graders with the syntactic fluency of our present twelfth graders. This change would free the senior high school teacher to concentrate on the larger problems of discourse and rhetoric. Now that’s a possibility to make any high school teacher get up and walk excitedly around his chair a few times. On the other hand, of course, no further accelerations beyond this initial jump might be possible. We badly need a longer-term study.

When the placebo group was added to the main analysis, the results did not change. The experimental group was clearly superior to both the other groups. Of further interest is the finding of no significant differences between the placebo and control groups. As for increasing syntactic fluency, students might just as well be reading and writing more as studying grammar. Even though there is considerable usage practice in conventional grammar study—examining and correcting sentences in exercises, copying out sentences, practicing correct forms, parsing and diagramming sentences—there is no acceleration of syntactic fluency. Mellon surmises that this may be the case because of the “childish sentences” found in grammar texts. The student is doing some sentence activities, but they do not provide him practice in complex new forms. After inspecting the data in his tables and noting that the placebo group appears to have a slight, though not statistically significant, advantage over the control group, Mellon concludes that one can raise “serious doubts as to the manner in which linguistic study is currently being introduced to junior high school students in the vast majority of American schools, since it serves to impoverish rather than enrich the language environments of those students.”

Let me list briefly the secondary findings of the study. (1) The sentence-combining exercises were as effective for boys as for girls. (2) They were effective for low starters and high starters in syntactic fluency.
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(3) They were effective for both urban and suburban students. (4) When a small sub-sample of the compositions was graded for over-all quality, the control group was superior to both the placebo and experimental groups. (means: 19.29 experimental, 21.80 control, 18.71 placebo, with a highest possible score of 30) Mellon explains this finding with a teacher variable: the highly experienced control teacher was a better composition teacher than either the placebo teacher or the two experimental teachers. In addition, he points out that no overall gain in quality was expected in one year's time. Unfortunately, too few teachers were represented in this sample; but the finding does permit Mellon to reiterate that he is studying only syntactic fluency, not whole compositions. And it allows me to reemphasize a point I made above: we can be teaching a huge number of error-avoidance rules, grammar rules, sentence exercises and games, parsing and diagramming activities, vocabulary and spelling drills and we still will not have a composition program. Too often these activities dominate, or even substitute for, a writing program.

The study concludes with a precis of the students' grammar text (Appendix A), some sample sentence-combining problems (Appendix B), and a complete list of the pre and post composition topics (Appendix C).

All things considered, this is a very distinguished study, one that every English teacher should examine closely. Its findings are significant and, equally important, it sets a high standard of research design and reporting. It is a fine example of the kind of useful research that can be done in English education, an area where many are skeptical, even disdainful, of empirical approaches.