FROM COMPLEX SENTENCES TO EFFICIENT
DISCOURSE: Syntactic maturity, sentence combining and
writing in a second language.

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My purpose in this paper is twofold: first, for colleagues who are not familiar with this area of applied linguistics or have not followed its developments, I would like to provide a concise history of syntactic maturity research and its pedagogical offshoot, sentence-combining practice. This will include an exposé of the original study (Hunt 1965), a brief survey of subsequent research and applications, and an illustration for French as a foreign language. The second part of the paper will be evaluative, starting with a look at the research criticizing that approach, then assessing its potential for the teaching of writing in the light of my own discourse-oriented work on learning to write in French as a foreign language.[1]

The impulse to syntactic maturity studies originally came from Kellogg W. Hunt's transformational grammar-based research on syntactic growth in American children. In a study of free writing by schoolchildren at three grade levels (4th, 8th and 12th grade), Hunt (1965) first showed that the syntax of children's writing evolves as they grow older, exhibiting a gradual increase in T-unit[2] length and complexity. Hunt's early observations were corroborated by the results of his later study where he also found that skilled adults (professional writers) carried even further the tendencies manifested by schoolchildren (Hunt, 1970a). This gradual lengthening of T-units was attributed to the subjects' increasing ability to join two or more kernels to a main clause through transformations into subordinate clauses or subclausal structures (embedding). The following examples, taken from Hunt's 1970 study, may help to clarify this concept of syntactic "maturation". Hunt used as a starting point a text written in

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[1]Because of my present teaching situation —I teach French to English university students who have already studied the language for seven years at school— I am interested in advanced level writing.

[2]The T-unit, or "minimal terminable unit", was introduced by Hunt who considered the sentence a rather unreliable unit given children's erratic punctuation; he defines it as "one main clause plus any subordinate clause or non-clausal structure that is attached to or embedded in it" (Hunt, 1970 a:4).

short simple sentences which subjects were asked to re-write "in a better way". The first six sentences,

1) Aluminum is a metal.	4) It comes from bauxite.
2) It is abundant.	5) Bauxite is an ore.
3) It has many uses.	6) Bauxite looks like clay.

were typically re-written in the following ways:
—at grade 4: "Aluminum is a metal and is abundant. It has many uses and it comes from bauxite. Bauxite is an ore and bauxite looks like clay."
—at grade 8: "Aluminum is an abundant metal, has many uses and comes from bauxite, which is an ore and looks like clay."
—at grade 12: "Aluminum is an abundant metal with many uses. It comes from an ore called bauxite that looks like clay."
—skilled adult: "Aluminum, an abundant metal of many uses, is obtained from bauxite, a clay-like ore."
These examples show the typical progression from coordination to subordination to reduction to less than a clause through adjectivization and apposition.

T-unit analysis was seen as providing an objective index of syntactic growth in first language writing, with obvious implications not only for testing but also for teaching: if learning to write is a process of syntactic "maturation" whereby the student gradually learns to produce more complex syntactic structures, can this process be accelerated in the classroom by exercises involving the construction of complex sentences from kernels, namely sentence-embedding or sentence-combining exercises? Hunt himself suggested this idea in the conclusion to his 1970 study (and also in a later paper, Hunt 1971), and several researchers supported it with experimental data showing that students who followed a programme of sentence-combining exercises performed better in terms of syntactic maturity (Mellon 1969, Ross 1971, Daiker et al. 1978, Mulder 1978) and also in terms of overall writing quality (O'Hare 1973, Combs 1976, Morenberg 1978, Stewart 1978). In response to these positive findings, much sentence-combining material was produced (Strong 1973, Cooper 1973, O'Hare 1974, Rippon Meyers 1979).

As far as an application to second and foreign language teaching was concerned, two major questions needed asking: first, is this age-linked increase in syntactic complexity specific to English or do speakers of other languages follow a similar developmental trend? Research on Swedish and Farsi (Truus 1972, Dehghanpisheh 1978) indicated that, though obviously there were variations in the frequency of certain structures in different languages, the pattern was not unique to English. The second question was, in K. Hunt's own words: "Do sentences in the second language grow like those in the first?" (Hunt 1970b). Sentence combining was tried and tested, and teaching material developed for

English as a second language (see Angelis 1975, Kameen 1978, Pack and Henrichsen 1980), and also for the teaching of French and German in American schools and colleges: with a re-writing test inspired by Hunt's 1970 study, Monroe (1975) shows that American college students follow basically the same developmental pattern in French as in their first language and suggests using sentence-combining practice and T-unit analysis as teaching and testing instruments in the French classroom at college level. Cooper, following a similar line, recommends T-unit analysis to measure the written syntactic patterns of second language learners of German (1976), and goes on to propose sentence-combining exercises for those learners (1977). His later studies (Cooper 1980, 1981) continue to reinforce this early confidence in sentence-combining practice to promote syntactic growth in intermediate and perhaps also advanced learners of French or German as a second language.

Textbooks and teacher's manuals including sentence-combining exercises have started appearing for French and I would like to present here some examples borrowed from C. Gaudiani's "Teaching Writing in the F.L. Curriculum" (1981: 65-66) which are suitable for students at the intermediate level:

1) Combine:
Je vois la chatte.
La chatte est blanche.
La chatte marche seule.

Answer:
Je vois la chatte blanche
qui marche seule.

2) Combine:
J'ai trois frères.
Mes frères sont plus jeunes
que moi.

Sample answers:
J'ai trois frères qui sont plus
jeunes que moi.
or
Mes trois frères sont plus
jeunes que moi.

3) Combine:
J'ai besoin de mes livres.
Je dois étudier.
J'ai un examen.

Answer:
J'ai besoin de mes livres parce
que je dois étudier pour un
examen.

4) Combine:
Hier j'ai rencontré le chef
du département.
Il m'a parlé d'un problème.
Je continue toujours à y penser.

Answer:
Depuis que j'ai rencontré le chef
du département hier, je continue
à penser au problème dont il
m'a parlé.

Gaudiani suggests asking students to embed new information —of their own choice— in the "combined sentence"; a sample modified answer for example 3) could be: "J'ai besoin de mes livres de philosophie parce que je dois étudier pour un examen difficile demain." For more open-ended exercises, the answers can only be sample answers as several versions may be acceptable. This is particularly true with complex sentence-combining problems such as the examples I gave in an earlier paper concerned with advanced writing in French as a foreign language (Woodley 1982). The first one is drawn from a report of a demonstration in a Parisian newspaper and may necessitate some background cultural knowledge.

1) Les autonomes se moquaient gentiment de la Ligue Communiste.
2) Les autonomes étaient à l'avant.
3) Les troupes de la Ligue Communiste se plaçaient symboliquement devant les C.R.S.
4) Les troupes de la Ligue Communiste étaient squelettiques.
5) Les C.R.S. étaient placés dans les rues adjacentes.

The original ran as follows: "Les autonomes, à l'avant, se moquaient gentiment de la Ligue Communiste, dont les troupes squelettiques se plaçaient symboliquement devant les C.R.S. placés dans les rues adjacentes."

The second example is adapted from a lengthy advertisement:

1) Les produits solaires Clarin aux plantes assurent un bronzage rapide.
2) Ils sont conçus pour quelque chose ("quelque chose" here is a "dummy" element where the following information will be inserted).
3) Ils évitent quelque chose.
4) Les rides apparaissent.
5) Ils sont testés avec succès sur toutes les natures de peaux.
6) Ils conservent à la peau sa jeunesse.
7) Ils conservent à la peau sa douceur.

"Les produits solaires Clarin aux plantes, conçus pour éviter l'apparition des rides et testés avec succès sur toutes les natures de peaux, assurent un bronzage rapide en conservant à la peau sa jeunesse et sa douceur."

The last example, for which I let the reader make up a solution, is less demanding:

1) Les vitamines sont nécessaires à la santé.
2) Il y a beaucoup de vitamines différentes.
3) Le manque de vitamines peut causer des maladies.
4) De nombreux aliments, comme les fruits et les légumes, contiennent des vitamines.

Exercises such as these can of course be created or adapted for all levels beyond beginner's, and their difficulty can be further regulated by the introduction of restrictions or more precise directions, for instance: "Combine, using 'parce que' " for example 3), or by indicating the logical links to be established between elements.

To summarize, sentence-combining practice provides language teachers with a flexible tool which they can adapt to their students'needs, which is grammatically based but not narrowly focussed on errors and not even necessarily explicitly grammatical, which guides students towards the production of the type of mature syntax which has been shown to be associated with good writing, and is very suitable for peer group work. Is this the panacea we have all been waiting for? This rhetorical question calls of course for a negative answer, but before giving my own assessment of the approach, I will briefly review the literature criticizing it. Gaies (1980) gives a useful survey of the criticisms addressed to the T-unit as a measure of syntactic maturity, as well as his own assessment in a second-language teaching perspective. Some researchers focus their criticism on the research arguing for the effectiveness of sentence-combining practice: Marzano (1970) points to the questionable rating procedures used in some experiments; Zamel (1980) complains that research reports often do not supply information on the type of instruction received by control groups, making it difficult to decide whether sentence-combining practice proved better than some other approach or whether it just proved "better than nothing at all". Along the same lines, Mellon and Kinneary (1979) question whether students' progress can be attributed solely to syntactic manipulation. These last four authors also address a fundamental question which exercises many researchers: what is the link between syntactic maturity and writing quality? Zamel writes: "The claims made about the effect of sentence-combining practice on overall quality refer to improvement in an area of writing that has little to do with the larger concerns of composing" (1980: 83). Many argue for the importance of other aspects of texts in the evaluation of overall quality, for example lexical choice (Neilsen and Piché 1981), or essay length and freedom from errors (Grobe 1981). More interestingly, Faigley (1980) sees level of syntactic maturity as defined by Hunt to be of little consequence and challenges the use of the terms 'maturity' and 'fluency' outside rhetorical considerations of audience, subject and purpose. In this he appears to follow on from other authors, such as Perron (1976, 1977) and Crowhurst (1977, 1980) who argue that mode of discourse and intented audience have an impact on syntactic complexity. Other writers are also opening up the debate by adopting a discourse perspective, such as Harris and Witte (1980), who suggest directions for research towards sentence-combining in a rhetorical framework, and Miller (1979) who claims that, along with syntactic maturity, conceptual and rhetorical maturity —the ability to adjust to varying writing situations— are present in good writing. Stratman (1982) considers the interface between syntactic complexity and "skill at argument", writing: "students' syntactic changes, though in one sense only

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residuals of higher level argumentative strategies, always have the potential to affect the distribution of information in an argument structure" (1982: 725).

This last criticism is very interesting insofar as it relates syntax and "higher level argumentative strategies", and I would like to expand on it in the light of my own work. Syntactic maturity studies are based on transformational grammar and therefore on a view of language in which the sentence is the largest unit of analyisis. Changes within sentences or the combination of kernel sentences into a complex sentence, are often effected in isolation, with no consideration of a) what may come before or after the sentence in question, and b) how the syntactic changes are likely to affect continuity within the text. Let us consider example 2): "J'ai trois frères. Mes frères sont plus jeunes que moi." Gaudiani gives two "sample answers" for the combination of the two basic sentences. "J'ai trois frères qui sont plus jeunes que moi," and "Mes trois frères sont plus jeunes que moi", which are indeed both syntactically correct; but are students led to believe that both will be equally appropriate in a particular context? Stratman says syntactic changes "have the potential to affect the distribution of information"; this is a reference to what has also been called "information packaging" (Chafe 1976) and has to do with the fact that almost every sentence contains some "given" or "old" information, linking it to what has come before, and some "new" information, which ensures that the text moves forward. In the example given above, the first sample answer would be appropriate in a context where the speaker/writer is introducing himself, and could occur as the first sentence of a piece of discourse. By contrast, the second answer is likely in a context where the "trois frères" have already been mentioned. Compare the sequences "J'habite à Paris avec mes parents, mes trois frères et ma soeur. Mes trois frères sont plus jeunes que moi" and "J'habite à Paris avec des amis étudiants. Mes trois frères sont plus jeunes que moi." The second sentence is anomalous, as it stands, but replacing the final sentence by its "twin": "J'ai trois frères qui sont plus jeunes que moi" would suffice to make it acceptable.

Another perspective on the same problem can be obtained using an example from Hunt's re-write instrument "Aluminum" (Hunt 1970). The first three sentences in Hunt's original "Aluminum" text, are as follows: "Aluminum is a metal. It is abundant. It comes from bauxite." The sentence "Aluminum, an abundant metal, comes from bauxite" is considered a better, more mature way of phrasing this information. But is it equivalent? As well as a syntactic reorganization, it is a reorganization of information based on the writer's perception of his/her potential reader's knowledge of the world: "Everybody knows aluminum is a metal and that it is abundant; there is no need to assert it." However it is possible to imagine a context, a basic school text for instance, where this assertion may be necessary. Syntactic changes such as subordination and reduction to subclausal structures must therefore be seen as devices speakers of a language can use a) to organize information in a way which ensures text cohesion, and b) to structure it hierarchically, giving more prominence to what is considered important or new information, and less to what is assumed to be known or

considered secondary. Syntax reflects a language user's strategies in a particular communication situation; it will be affected by variables such as text purpose, addressee(s), etc.

Let us now come to the assessment of the potential of sentence-combining practice for second and foreign language teaching: I have tried to explain how syntactic choices affect the distribution of information and are therefore part of a writer's overall strategy. Our students' mastery of the foreign language's syntax is often such that their choices are made in the dark and fail to reflect their proposed strategy. Besides, out of the fear of errors we teachers have instilled in them, many students opt for a no-risk syntax, which gives their compositions a deplorable childish ring. I think that sentence-combining practice can very profitably be integrated in an intermediate or advanced foreign-language writing course, and very enjoyably as well as it offers opportunities for language games and peer group activities and exchange, but it is most important that it is seen in a wider perspective: writing is primarily about texts, not sentences, and a succession of correct, syntactically "mature" sentences does not necessarily make a 'good' text.

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