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Syntactic Complexity: Investigating hypotactic and paratactic styles of speech in non-native extended discourse

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1. Introduction

Day-to-day casual conversation is typically characterized by short turns and frequent turn-taking due to the high degree of collaboration (Clark, 1996) between participants. For students of English conversing with their teacher or other native speakers, this collaboration helps to structure the conversation, and the teacher's contributions act like a 'peg' on which students can hang their discourse. However, when students in academia are required to produce more extended speech in the form of a description, narration or opinion, say during an interview or presentation, there is less support from the teacher and consequently a greater burden on the student to produce discourse which is packaged in a logical and coherent manner.

While highly collaborative, casual talk is normally taken to be the prototypical discourse act, it is often the case that extended discourse of this kind is used to determine the students' proficiency in the mind of the teacher and university administration. For example, a teacher may assign a portion of the end-of-semester grade to a student based on a presentation in class, or a student may be required to undertake an oral interview in order to assess suitability for overseas study. Both these tasks will require syntactically complex extended discourse to be demonstrated. In fact, despite its atypical nature, extended discourse is often given greater prominence than casual talk in assessing proficiency. Instances of extended discourse thus take on significance and value for the student in the sense that they represent important discourse acts in the academic lives of students and form the basis for the assessment of speaking proficiency.

A key component of the assessment of extended discourse is syntactic complexity. Students who demonstrate a greater syntactic complexity in their output will generally be judged

more proficient in this respect than students with less complex output. However, a dilemma exists here for students in that achieving greater complexity in their output is fraught with difficulties. Syntactic complexity demands the construction and manipulation of multi-clausal units and it can be very easy for students to create incoherence in their speech by trying to use complex constructions which they have not fully learned or proceduralized.

This paper investigates syntactic complexity in the extended discourse of non-native speakers of English in an attempt to understand how it manifests itself. Syntactic complexity will be examined from both a quantitative perspective, by chiefly looking at the length of utterances produced, and a qualitative perspective, by considering the type of verbal constructions employed, namely subordinate and embedded constructions. The object is to not only explicate the nature of complexity for students of differing language proficiency, but also to show how students utilize different styles to achieve proficiency. In particular, toward the end of the paper, I would like to focus on two students who displayed opposing strategies, one employing a syntactically complex style of speech with a relatively high degree of subordination and embedding, the other a syntactically simple style.

2. Syntactic Complexity

Defining and measuring syntactic complexity has not proved to be an easy undertaking despite the many attempts. One way to approach the task is to look at the length of the 'chunks' of language in any given student's output. All spoken language consists of chunks, or units of information, which are thought to be the basic building blocks upon which ideas are formulated and articulated. Thus more complex units will require a greater degree of planning and tighter management of the syntactic elements that make up the units. The simplest of units will be sub-clausal consisting of phrases and minor utterances. Slightly more complex will be simple clausal units consisting of minimally a subject and verb. More syntactically complex structures may contain modifiers and adverbial elements, and the most complex of all will be multi-clausal units consisting of a main clause and dependant clauses.

Multi-clausal units are an important feature of language because they allow speakers to subordinate and embed information within the main text. Tyler (1992, 1994) has suggested that the ability of native speakers to syntactically 'incorporate' language into multi-clausal units in this way, also known as hypotaxis, essentially acts to bind the information and make clear the hierarchical relations between chunks of information. When students of English are unable to produce speech of this kind, their discourse is perceived as being flat and undifferentiated

(parataxis):

Heavy reliance on coordinate conjunction and juxtaposition in lieu of syntactic incorporation [hypotaxis] essentially strips the discourse of important sources of information regarding prominence and logical relationships.

(Tyler, 1992:721)

A common misconception is that speech, unlike the written mode, essentially consists of flat, paratactic constructions juxtaposed with each other, even in native discourse. However, as the next section will argue, this is not strictly true.

2.1. *Syntactic Complexity in Native speech*

A number of studies have looked at native language and shown that the spoken mode can and often does employ syntactic complexity to the degree found in the written mode. Beaman (1984), working with narratives, suggests that they are 'on the whole just as complex as, if not more complex in some respects, than written narrative' (p. 78). In addition, Biber (1988), who has probably carried out one of the largest studies into frequencies of linguistic features in English, shows that the subordinating features for English vary depending on the genre and modality (written and spoken). Some spoken genres show more complexity than some written genres and vice versa. According to his statistics, interviews, the type of discourse under study here, compare significantly with written academic prose and press reportage in the frequency of subordinating features they exhibit.

Even unplanned, casual conversation is not totally void of complexity, however. Danielewicz (1984), who conducted one of the earliest studies on subordination and embedding in native speaker speech, identified 'dependent' clauses (subordinate, relative and complement) and looked at the distribution of these within unplanned adult native speech during a dinner table conversation. Her findings are summarized in the middle column of table 1 below.

Table 1: Comparison of 'dependency' features in unplanned native and non-native speech.

	Danielewicz (1984) (unplanned, native)	Tyler et al (1988) (unplanned, non-native)
Subordinate	19	7
Relative	20	2
Complement	18	9
Total	57	18

(per 1,000 words)

Danielewicz (1984, p. 247) reports that approximately 20% of all clauses are dependent clauses. That is, one in five of the clauses articulated is in some way dependent on another clause for their interpretation — not an insignificant number.

2.2. *Syntactic Complexity in Non-native speech*

Tyler, Jefferies, & Davies (1988, p. 105) have shown how, in comparison to native speech, non-native speech contains far fewer dependent clauses. The right-hand column of table 1 above shows how the number of dependent clauses for unplanned, non-native speech is significantly less than for native speakers. In particular, the number of relative clauses is one tenth that of the native value. Tyler et al claim that the lack of hypotaxis in non-native speaker speech leads to a discourse which is perceived as ‘flat’ and lacking in cues to indicate prominence relations. In other words, the foregrounding of main information and backgrounding of subordinate information lacks focus and appears disorganized. These findings have been confirmed in other studies (Tyler, 1992, 1994; Liu, 2001).

In her 1992 paper, Tyler gives an example from a Chinese non-native speaker of English (see example 2 below). She notes how in this instance, the speaker simply juxtaposed two clauses with the result that the listener is left to infer the logical and hierarchical relationships based on this juxtaposition. However, in this case ‘the context is not sufficiently rich for the English listener to establish a meaningful connection...’ (p. 721). The result is that the listener tends to ‘interpret [the two clauses] as being equal in prominence and centrality to the argument’ (p. 721).

2. O.K. first of all let's see the warrants for traffic signal installation. There is a book call called Manual on Uniform Traffic Control Devices.

Tyler, however, argues that when the clauses are linked through more complex syntax, as in the reconstructed example 3, a more interpretable connection emerges in which the second clause is shown to be less prominent and central to the argument than the first clause. In other words, the discourse signals to the listener that the main topic is *warrants* and not the *book*, which is in fact background information.

3. Let's see the warrants for traffic signal installation which are found in the book called Manual on Uniform Traffic Control Devices.
(Tyler, 1992, 718-721)

The flat, paratactic pattern of this speaker's style, as exemplified in example 3, was repeated throughout the discourse giving the impression that the speaker was ‘wandering or continually

Syntactic Complexity: Investigating hypotactic and paratactic styles of speech in non-native extended discourse digressing from the main point' (p. 721).

3. The Present Study

The present study will look at the oral output of non-native speakers of English in an attempt to try and capture the syntactic complexity of their discourse. The aim is to look at the units of speech, first of all to determine how closely the complexity approaches that of the native speaker, and second to see if distinct patterns of hypotaxis and parataxis can be observed within and between students. Two measures of complexity will be introduced for the study and these will be used to highlight variation due to language proficiency differences between students, improvement in proficiency over the course of the program, and the degree of abstractness /complexity of the discourse.

For the analysis, five Korean students of English (all male) of varying proficiency level were chosen from an eight-week intensive English course. Each student was interviewed once at the start of the course and once at the end. The interview was a simulated oral proficiency interview (OPI) as described in the ETS /ACTFL guidelines (ETS, 1982). This interview is a one-on-one, face-to-face interview in which the interlocutor poses a number of questions and the student responds. The OPI is an internationally recognized interviewing format which is particularly suited for rating academic proficiency since it requires that the candidate is 'pushed' to his or her maximum potential through a judicious choice of complex and /or abstract questioning (although warm up and wind down phases at the start and end of the interview include simpler questions in an attempt to put the candidate at ease). Care is taken to ensure that the student is given sufficient time to finish his or her response, which usually results in a fair degree of extended discourse being elicited. (See Johnson, 2001 for a discussion of the validity of the OPI.)

The OPI levels assigned for each student at the initial and final interviews are given in table 2. Student A was rated at the lowest level in the initial interview and student E the highest, with students B, C and D at incremental levels in between. At the final interview, however, the situation had changed slightly. Students C and D were judged to be of equal proficiency as E with B slightly behind. Student A was still clearly the weakest student although he had made good progress. (Note, the OPI levels are bands or ranges, so two students with the same level can actually differ to some degree in proficiency.)

Table 2: OPI levels assigned for each student.

Student	A		B		C		D		E	
Interview	Initial	Final	Initial	Final	Initial	Final	Initial	Final	Initial	Final
OPI level	1	1+	1+	2	1+	2+	2	2+	2	2+

(1 = intermediate mid, 1+ = intermediate high, 2 = advanced, 2+ = advanced plus)

The interviews were orthographically transcribed and the students' speech was divided into AS-Units (ASU). The ASU as defined by Foster, Tonkyn and Wigglesworth (2000) is 'a single speaker's utterance consisting of an *independent clause or sub-clausal unit*, together with any *subordinate clause(s)* associated with either' (p. 365 *Italics in original*). It is mainly a syntactic unit which appeals to intonation and pause features in awkward cases. This fits in well with the general focus of the research (i.e. non-prosodic /non-temporal).

Since the aim of the work was chiefly to investigate the nature of L2 extended discourse, it was decided to exclude some parts of the interview that dealt mainly with procedural matters or where the students' answers were short (typically less than a clause such as *yes, okay*). In total, 133 turns were analyzed from 10 interviews, which amounted to 6,335 words.

3.1. Measures of Syntactic Complexity

Two methods of measuring syntactic complexity were employed in the study. The first measure was the average number of words per ASU. This is determined by counting the number of words in the turn and dividing by the number of ASUs. However, since the length of ASU would be unduly affected by including so-called disfluencies (Lickley, 1994), these phenomena were removed from the data before calculating the number of words. As an illustration of this technique, the following turn is first presented in 'raw' form (example 4) with all disfluency phenomena present (e.g. hesitations, fillers, repetitions, false starts, etc.) and then in 'cleaned' form (example 5) with the disfluency phenomena removed:

4. No no problem. We in case- in my case er er er I didn't concern concern with the the salary er I didn't concern with the er the money er only I depend depend on my wife.
5. No problem. In my case, I didn't concern with the salary. I didn't concern with the money. Only I depend on my wife.

Clearly calculating syntactic complexity based on the 'raw' transcription would be misleading since much disfluency phenomena, which does not add to the semantic content of the message, would disproportionately increase the complexity measure. The 'cleaned' transcription reveals

the underlying and intended message and thus is the appropriate transcription on which to base the measure. (See Foster, Tonkyn & Wigglesworth (2000) for a discussion of this technique.)

The second measure of syntactic complexity employed was to count the number of S2+ units and report this as a percentage of the total number of ASUs. An S2+ unit according to Nakahama, Tyler, and van Lier (2001) is an 'utterance with more than one verbal construction' (p. 391). In this study, an utterance is equated with an ASU. The following are all examples of S2+ constructions taken from the data under study:

6. I heard that there are many harmful chemical in the smoke.
7. So when I come back my office I am working the remain my work.
8. But in university students I met the native speaker to teach me the English.
9. If we need some money we loaned from the developed country.
10. So maybe one thing is we will have to try to the strengthen the overseas the public relations.

The S2+ measure differs from the ASU measure in that it attempts to capture only the verbal complexity of speech. It assumes that the verb, together with its agents (e.g., subject, object), is at the core of speech, and that additional adverbial and complementary elements carry less significance, or at least require less cognitive processing. In the following example, the length of the ASU is lengthened by syntactic elements that are not so closely tied to the main verb as the subject and object are:

11. We use the inspection equipment such as visual inspection or electrical inspection and final visual inspection.

(ASU length: 16 words)

If the speaker had added more items to the list at the end of this ASU, the length would be increased even further. However, it could be argued that while the list adds to the message, it doesn't display additional syntactic complexity since this has already been displayed with the SVO construction (*We use the inspection equipment*). The S2+ measure in this case treats the above example the same regardless of the length of the listed items, and in fact assigns this example to the S1 category. It is only when additional verbal complexity is added to an utterance that it is assigned to the S2+ category.

Both the ASU and the S2+ measures of syntactic complexity are valid methods of measurement but approach the task from slightly different planes, the ASU relying chiefly on length of unit and the S2+ on verbal complexity. In the past, use of the ASU or similar units of speech to measure complexity, such as the T-unit (Hunt, 1965), idea-unit (Chafe, 1980), or tone-unit (Halliday, 1968), has been common whereas the S2+ measure has been employed infrequently

to say the least. One of the aims of this paper is to show the two measures side by side so that the similarities and differences in what and how they measure can be appreciated.

Three main research hypotheses were posited at the start of the study:

- (1) Students with higher language proficiency as measured by the OPI will exhibit a significantly greater syntactic complexity than students with lower language proficiency.
- (2) Syntactic complexity will increase significantly for each student over the eight-week period of the course.
- (3) Answer to questions in the OPI which are more complex and /or abstract will exhibit a greater degree of syntactic complexity than answers to questions which are simpler and more concrete.

The outcome of these hypotheses and a discussion of the research findings will be presented in the following sections.

4. Results

Table 3 compares the number of subordinate, relative and complement clauses per 1,000 words for this study with Danielewicz's (1984) findings. As we can see, the frequency of each linguistic feature is much lower than that expected for spontaneous adult native speech. The difference is even more pronounced when we consider that this study looked at the interview genre whereas Danielewicz's looked at casual conversation. We would expect, according to Biber (1988), to see more dependency and complexity in interview discourse than casual conversation simply because the nature of the genre demands this.

Table 3: Comparison of 'dependency' features for Danielewicz and this study.

	Danielewicz (1984) (unplanned, native)	This study (unplanned, non-native)
Subordinate	19	8.8
Relative	20	< 1
Complement	18	12.6
Total	57	21.4

(per 1,000 words)

Overall, then, it seems the non-native students are at a disadvantage since their ability to subordinate and embed information to bring out the logical and prominence relations between ideas is restricted. In particular, the inability to use relative clauses, which are an important part of English (and all languages) for identifying referents and modifying clauses (Fries, 2001), appears to be severely constrained. Other researchers (e.g. Schachter, 1974) have reported how Asian students with primarily left-branching L1s tend to avoid using relative clauses in English. The consequence of this is that a large part of noun phrase modification occurs with adjectives in pre-head position resulting in a loss of specificity and precision.

Table 4: Results of complexity measures used in this study.

Student	A		B		C		D		E		Totals
Interview	Initial	Final	Initial	Final	Initial	Final	Initial	Final	Initial	Final	
Turns	5	12	13	14	15	18	10	14	20	12	133
Words	84	365	525	788	748	880	465	1112	751	635	6353
ASUs	20	38	70	90	90	98	59	115	123	84	787
Wds / ASU	4.2	9.61	7.5	8.76	8.31	8.98	7.88	9.67	6.11	7.56	8.07
% S2+	5	34.2	18.6	35.6	22.2	34.7	33.9	32.2	17.1	17.9	26.2

However, the frequency of these particular linguistic features merely confirms the findings of other researchers. In order to see how complexity reveals itself (or fails to) in the speech of the non-native, further investigation is required. Table 4 above gives a summary of the two main complexity measures employed in the study. Each student (A-E) is listed for both the initial interview conducted at the start of the course, and the final interview conducted at the end.

4.1. Hypothesis 1: Complexity and Language Proficiency

Using the ASU measure of syntactic complexity (words /ASU), hypothesis 1 is not proven. In the initial interviews, while student A (lowest proficiency) clearly has the shortest ASU average (4.20), student E (highest proficiency) has the second shortest average (6.11). The C student has the longest ASU average (8.31). In the final interviews, the A student, who is still clearly the weakest student, has the second longest ASU average while student E has the shortest average. Thus it seems that students with higher language proficiency do not necessarily exhibit greater syntactic complexity than students with lower proficiency, neither in the initial nor

the final interviews.

The S2+ measure also shows mixed results with regard to complexity increase with proficiency. In the initial interviews, there is a steady increase from student A to D but then a sudden drop for student E. In the final interviews, students A to D all achieve relatively high levels of S2+ usage but student E remains low. In addition, we can note that while there is a fair degree of correlation between the ASU and the S2+ measure of complexity, there are noticeable differences. Student D, for example, has a low measure of words per ASU for his first interview but a corresponding high measure of S2+ for the same interview.

The findings here are somewhat surprising because it has been assumed that higher proficiency students would exhibit greater syntactic complexity than lower proficiency. A couple of reasons could be suggested to account for this. First, it should be noted that the research is limited in breadth with only five students being analyzed. It could be that a broader study would reveal a more steady increase in complexity with proficiency. However, a second interpretation, and one which will be explored in more detail later in the paper, is that student E represents an idiosyncratic style of speech which relies on rapid articulation of flat, paratactic discourse to display higher language proficiency. Student D on the other hand has an opposing style of speech which relies more on hypotaxis (subordination and embedding). Both students are able to achieve relatively high levels of language proficiency as measured by the OPI compared to the other students in the study, but both use different styles to achieve this, at least as far as syntax is concerned.

4.2. Hypothesis 2: Complexity and Language Improvement

Hypothesis 2 is concerned with how syntactic complexity increases over the length of the eight-week intensive study. Using the first measure of syntactic complexity, all students showed a lengthening of ASU from the initial to the final interview. Students A, B and E showed significant increases ($p < 0.01$) while C and D showed less significant increases ($p < 0.05$). (However, a two-tailed test for significance was employed when an argument for a one-tailed test could have been made, thus increasing the significance of C and D.)

The second measure shows more mixed results, however. Students A, B and C all made significant increases, but students D and E did not. Student D exhibits a relatively constant (actually a slight dip) but high level of S2+ use over the two interviews while student E exhibits a relatively constant but low level of S2+ use. Once again, it appears that these two students, who were both rated relatively high on the global score of language proficiency (OPI), are actually

showing opposing speech styles with regard to syntactic complexity.

The first measure of syntactic complexity, then, tends to support hypothesis 2 while the second measure does not. This disparity could lead us to suggest that even though students are increasing the length of their utterances as language proficiency increases, this does not necessarily mean that additional verbal complexity is being displayed. In other words, students are packing more adverbial and adjectival modifiers in to their units of speech but the basic verbal complexity remains the same. One interpretation for student D's performance is that he actually came in to the program with a high level of complexity. Assuming that there is a theoretical limit on the percentage of S2+ constructions that spoken discourse can contain — it would be highly unlikely, for example, for a speaker (native or non-native) to speak using 100% S2+ constructions — we would not expect student D to significantly increase his use of these types of construction.

4.3. Hypothesis 3: Complexity and Degree of Abstractness

Hypothesis 3 claimed that syntactic complexity would vary depending on the type of question being asked and the answer elicited. Questions requiring answers that are more abstract and /or complex would require a greater degree of complexity than questions which were simpler and more concrete. The terms 'concrete' and 'abstract' here are not easy to operationalize and a certain degree of subjectivity is inevitably involved in deciding what constitutes a concrete question and what constitutes an abstract question. In general, concrete questions address topics of a relatively simple nature concerning familiar areas such as a description of a hometown, family, etc. Abstract questions, on the other hand, involve topics which require a greater degree of complexity due to the relatively unspecified nature of the subject and the degree of distance from the student's own personal experience. Such questions may require the student to give opinions regarding political, religious, cultural issues, etc. Examples of a concrete and abstract question from the interviews are given below:

12. When you have some spare time, what do you like to do? (CONCRETE)

13. Tell me the arguments for banning smoking. (ABSTRACT)

To test hypothesis 3, four turns were selected from each interview. Two of these turns were answers to concrete questions while two were answers to abstract questions. This yielded two sets (concrete and abstract) each with 20 turns. The average length in words of the ASUs was calculated for each set and the level of significance of the difference was calculated. The results are presented in table 5.

Table 5: Syntactic complexity for abstract and concrete discourse.

	Concrete	Abstract
No. words	877	1191
No. ASUs	112	131
Words /ASU	7.83	9.09

(t-test: $p > 0.2$)

From these results, we can say that hypothesis 3 is not proven. Whilst a difference between the two sets was found, with the abstract set producing a greater length of ASU, the difference was not found to be significant. It may be that a larger set would produce more significant results since the current sampling size was rather small, in which case we might claim that there is a 'tendency' toward more complexity in abstract speech than in concrete speech. However, an alternative explanation could be that due to the pressures of on-line planning and oral production of the interview, questions that were more abstract in nature, and thus often more complex, meant that the student reverted to a more pragmatic, paratactic style of speech than would be expected if for instance the student provided a written answer to the question. Thus while abstract questions demand more syntactic complexity compared to concrete questions, this complexity is offset during spoken discourse by a greater burden imposed on the student who is unfamiliar with the topic.

4.4. Qualitative Analysis

While the quantitative analysis above highlights some of the differences between students, it does not shed much light on the type of hypotactic structures being employed during the interviews. In order to investigate this, each instance of S2+ was categorized according to the type of syntactic construction being used. Ten categories emerged from this and these are listed in table 6 below. For each category, an actual example taken from the interviews is given.

Table 6: Listing of all S2+ categories.

Category	Weighting	Explanation and example
CandC	1.2	Coordinated verb phrases using <i>and</i> , <i>but</i> , etc. <i>So they went to army in at 8 O'clock and they went out 5 O'clock</i>
SVtoV	1.3	Simple verb followed by non-finite to-verb <i>I would like to apply God</i>
SVThat	1.4	Subject + verb + that-complement <i>I think it is a second cause</i>
SbeADJtoV	1.5	Subject + to-be + adjective + to-verb <i>So it's very difficult to climb</i>
MISC	1.5	Miscellaneous category containing all S2+ clauses that cannot be classified into one of other categories. <i>Maybe this times is best solution is apologize</i>
SVNPtoV	1.6	Subject + verb + noun phrase + to-verb <i>So children have no idea to think another people</i>
WhenC1C2	1.7	Clause + adverbial temporal clause (<i>when</i> , <i>before</i> , <i>after</i> , etc.) <i>So when I first grade of university in summer vacation I spent two months there</i>
IfC1C2	1.8	Clause + adverbial conditional clause <i>If I control the money, I have more stress</i>
Complex	1.9	Complex subordinated clause. <i>Although the English course is not enough to study fully, but you try to do best</i>
REL	2	Relative clause <i>And dispose the money who has office</i>

Not all constructions, however, are equally complex and some may require greater planning and cognitive load for L2 students than others. Consider the following constructions for example:

14. I think basically the most countries think about their benefit

15. To capture their benefit, almost most countries can the sometimes fight and some-times cooperate

The first multi-clausal unit (example 14) is of the type SVThat whereas the second (example 15) is of the type SVNPtoV (with the 'to phrase' fronted). Both can be expressed as CR(*p,q*) where CR indicates a coherence relation, *p* is the first clause, and *q* the second. In the first case, however, the coherence relation between *p* and *q* is 'weaker' in the sense that *p* is just a statement (*I think...*) about how the speaker feels about *q*. The subject and verb of clause *p* have a loose connection with the agents of *q*. In example 15, however, the coherence relation is 'stronger' in the sense that the semantic content of *p* provides a ground for *q*. The subject of the non-

finite clause p (covert in this case) is the same as the subject of q , there is concordance between lexical items and even cataphoric reference through the pronoun *their*.

To capture the differences in cognitive complexity of the S2+ constructions, a rough weighting was applied to each category. These weightings are given in the second column of table 6 above. The coordinated verb phrases are the simplest and thus received the lowest weighting whereas the relative clauses are deemed to be the most complex and receive the highest rating. (It should be said at this juncture that this assignment of weightings is exploratory and aimed only at capturing the basic differences between categories. It is not intended to be a precision-based algorithm for future research.) We can then calculate the average weighting for each student in each interview and present the results below in table 7.

Table 7: Average weighting of S2+ constructions for each interview.

Student	A		B		C		D		E		Ave
Interview	Initial	Final	Initial	Final	Initial	Final	Initial	Final	Initial	Final	
S2+ weight	1.3	1.5	1.5	1.5	1.7	1.5	1.5	1.6	1.6	1.5	1.5

The results are relatively unremarkable in that, except for student A's first interview, all students score around 1.5 on average. Student C does score slightly higher in his first interview (1.7) but given the rough assignment of weightings, we should not read too much significance into this.

Table 8: Relative occurrences of S2+ constructions

Category	Total No.	% of S2+ units	% of total ASUs
CandC	9	4	1.1
SVtoV	18	9	2.3
SVThat	80	38	10.2
SbeADJtoV	12	6	1.5
MISC	6	3	0.8
SVNPtoV	27	13	3.4
WhenC1C2	20	10	2.5
IfC1C2	28	13	3.6
Complex	8	4	1
REL	1	0	0.1
Total	209	100%	26.50%

What this exercise shows, then, is that no one student is using an abnormally high number of complex S2+ constructions and neither is any student using an abnormally high number of simple constructions. Each student is selecting from the range of categories in equal proportions. It is important to establish this fact since it enables us to move on to a qualitative comparison of two students with the knowledge that they are both using a similar range of multi-clausal constructions. Before doing this, however, it is useful to note that over half of all S2+ constructions are from the upper half of table 6 (i.e. with a weighting of 1.5 or less). This can be seen in table 8 above where the first five categories account for almost 60% of the total constructions. The SVThat category alone accounts for 33% of the total. In other words, all students are choosing heavily from what we have classed as simpler S2+ constructions. It could be argued that this will weaken their ability to show logical and prominence relations even further.

4.5. *Hypotactic and Paratactic Styles*

As mentioned earlier, there is something of a quandary for teachers as to whether to encourage students to employ a syntactically simple style of speech or to attempt a syntactically more complex style. The data analyzed here enables us to take a brief look at how each of these strategies manifests itself by comparing students D and E. They are both at the top end of the proficiency level for the group but have markedly different strategies when it comes to S2+ usage. Student D has a high level of S2+ usage in both the first and second interview (33.9, 32.2) while student E has a lower level (17.1, 17.9). Student D could be said to be using a 'hypotactic strategy' in which subordination and embedding are an integral part of his spoken output, whereas student E is using a flatter, 'paratactic strategy' in which clauses are more likely to be juxtaposed with each other rather than subordinated or embedded. (Although I am not suggesting here that they will employ these strategies on all occasions.)

As an illustration of each strategy, consider the two examples below taken from the OPI interviews. Both are answers to similar questions which makes the comparison more valid.

16. *Can you explain the procedure for making a proposal in your company?*

... We receive bidder from the client. We'll prepared our proposal based on ITB [Invitation to Bid] and we have to prepare our proposal. We submit our proposal to client and client look at the our proposals very clearly and the client accept one bidders. Another bidders not acceptable. If the client choose my companies, we can go on and discuss. Some items is meet, another items is cannot meet. Please prepares deviations from the ITB.

17. *Can you describe the general procedure when you make a bid?*

So first we receive the information about the international bid through our overseas branch. So after receive the information we check and study the information with our cooperation company. So is right for us to participating in this project or not. Choose the project for us to participation in project. So we have to then, we call to our branch to buy international bid document. And after receive the document from our branch we study and prepare for the our proposal within limited date.

The first example shows a paratactic strategy. Each chunk, or unit of information, is articulated one after the other without any signaling of background /foreground information. All units are foregrounded as main clauses, except one, which is signaled as a conditional clause. The result is that the discourse could be perceived as a 'flat' paratactic style of discourse. In the second example, more of the information is backgrounded into subordinate clauses (e.g. *after receive the document from our branch*) and embedded clauses (e.g. *to buy international bid document*). This foregrounding /backgrounding strategy acts to indicate the prominence relations between the ideas thus indicating which are more mainstream ideas and which are supporting ideas.

Both the hypotactic and paratactic styles can be successful as witnessed by the fact that both student D and E were rated at the top in proficiency for the group. In fact, it could be argued that the paratactic answer above is easier to listen to. Even though the units are articulated in a flat manner, the simplicity acts to keep any errors and discourse miscues from interfering with the listener's understanding. With the second example, however, particularly in the middle of the turn, certain information is not appropriately backgrounded. For example, the third sentence could have been more appropriately rendered as: *Then we have to decide if it is right for us to participating in the project or not.*

While this is only one example, it does highlight the predicament that students find themselves in during their L2 acquisitional careers in academia. On the one hand, teachers encourage and sometimes demand that students communicate fluently with simple constructions, yet they know that their proficiency will often be judged on their ability to display more complex constructions. Moreover, most students simply take it as common sense that they should study and learn successively more complex forms of English than the ones they already know with a view to eventually deploying these someday. Many fear that if they do not push themselves to graduate towards more complex forms of the language, their interlanguage may simply fossilize, as appears to have happened to student E.

What advice should the teacher then give? While there is no hard and fast rule for this situation, it seems logical that students should be able to deploy both styles of speech depending on the task. In other words, students need to know when it is appropriate to use one style and when

it is appropriate to use the other according to context. This strategic competence forms part of the students' overall communicative competence and involves the ability to formulate and produce utterances that are not only grammatical but also suitable for the context in which they are made (Campbell and Wales, 1970). Thus at times in a formal academic setting, displaying more complex forms may be beneficial providing the topic is familiar to the student and there is low-risk. But the student needs to be aware and ready to strategically shift style if he or she encounters problems. This could include such strategies as circumlocution, where the student navigates around difficult topics using simple sentences, or avoidance, where the student avoids talking about particular aspects of a topic simply because of the complexity involved.

5. Conclusion

The production of extended discourse is a common requisite for students studying in an academic environment, and even though this act is often taken to be less central to discourse than the more prototypical causal conversation, it can garner greater attention from teachers and the administration in their quest to grade and assess student performance and proficiency. One component of this measure is syntactic complexity and generally speaking students who display greater syntactic complexity in their output will be assessed higher than those who display less, providing their speech remains coherent of course. However, students of English are at a disadvantage to native speakers because of their inability to fully utilize the features of subordination and embedding, upon which syntactic complexity is built. Instead their discourse contains a greater percentage of paratactic units juxtaposed with each other creating a greater burden on the listener who must try and infer the logical and prominence relations between the underspecified bits of information. Having said this, not all non-native speech is flat and students may differ in the degree to which they strategically employ hypotactic and /or paratactic discourse. Some students may demonstrate a tendency towards a hypotactic style in which a certain degree of complexity is employed (although not as great as a native speaker) whereas others may utilize a paratactic style. Furthermore, language proficiency across students does not seem to be a good indicator of which style will be used. High proficiency students may choose a paratactic style while lower level students may exhibit more hypotaxis (or vice versa). And while improvement in proficiency may lead to a lengthening of the speech units for a student, it does not necessarily lead to greater verbal complexity.

For the student, there are dilemmas in which style to adopt, and realistically a certain amount of strategic planning will be required. The student who uses a hypotactic strategy takes

more risks with the language and is probably more prone to errors and miscues unless he has complete mastery of the subordination style (a goal which realistically will take many years to reach). The student who employs a paratactic strategy takes less risks but has fewer resources at his or her disposal to background information, which can lead to a lack of specificity. Fossilization of the interlanguage also seems more likely for this kind of student. Thus, as with other aspects of second language learning, developing syntactic complexity is ironically a 'complex' issue, and giving sound advice to students is not easy. However, encouraging students to develop strategic competence in knowing when and when not to deploy a particular style is a practical solution, and the student who is able to move back and forth between styles is probably at an advantage to most.

Finally, I would like to say that due to the small size of the research, it has only been possible to make tentative assumptions about L2 syntactic complexity and the notions of paratactic and hypotactic styles of speech. These styles will need to be investigated in much larger studies if we want to be certain of their nature and existence. Any such research would also need to look at a number of other factors which were outside the scope of this study. One such factor is the notion of nominalization where students syntactically incorporate information into complex noun phrases. The measures of complexity used in this study could overlook this type of packaging and it may be, for example, that student E, who was identified as using a paratactic style of speech, could actually be employing more nominalization to impart information than other students.

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