A FUNCTIONAL ANALYSIS OF CONNECTIVES IN ENGLISH

COMPOSITION: IMPLICATIONS FOR THE TEACHING

OF ENGLISH AS A SECOND LANGUAGE

THESIS

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By

Cynthia A. Leavelle, B.S.

Denton, Texas

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Errors by ESL writers involving connectives show a need for changes in the current teaching approach of composition teachers, an approach which reflects a lack of attention to the discourse function of connectives on the part of linguists and rhetoricians. More recent studies in text and functional grammars reveal that factors other than syntax control conjunctive use. These include pragmatic differences between spoken and written language, the role of semantics in defining dependency, and discourse functions of connectives. Conjunction is seen as part of a continuum of semantic dependency that is manifested as degrees of syntactic complexity. Teaching methods should take into account semantic and pragmatic factors and encourage learning of connectives through activities such as revision of student writing for content as well as mechanics.

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CHAPTER I

INTRODUCTION

Teachers of composition to students of English as a second
language (ESL) have noticed that their students have problems
knowing how to use connectives properly to tie their ideas to-
gether. Students often write papers which, although understan-
dable, have a definite nonnative flavor. This paper asserts
that teaching methods for teaching connectives in writing have
been inadequate because these methods are based on a linguistic
tradition which has not adequately recognized the effects that
literacy has on language, nor recognized the primacy of prag-
matics and semantics in determining syntactic realizations. In
Chapter One, we examine some of the errors made by nonnative
speakers and give a general overview of possible reasons for
these errors. Chapter Two briefly reviews some of the linguis-
tic descriptions of connective elements which have characterized
the literature. Chapter Three will include an examination of
the contrasts of orality and literacy and the syntactic effects
these have on language. It will also include a discussion of
how an analysis of semantic dependency can contribute to the
traditional analysis of syntactic dependency in describing con-
nective relationships. We will then see how semantic dependency
operates pragmatically within discourse in maintaining topic and

thematic continuity. In Chapter Four, we will examine the syntactic consequences of semantic dependency in terms of a continuum of coordination/subordination. Within this continuum we will find those elements of connection which are realized as lexical items. These items will be described in greater depth, examining the pragmatic, semantic, and syntactic constraints on their use in discourse. These lexical devices--coordinating conjunctions, subordinating conjunctions, conjunctive adverbs, and formulaic transitions expressions--are of particular interest because errors by ESL students which involve these seem to signal a general lack of knowledge of the syntactically-complex system of written English. In general, we will refer to these terms as 'connectives' to avoid confusion with other terminology.

Chapter Five includes an evaluation of methods used to teach connectives in a representative number of ESL composition textbooks and suggestions for possible ESL classroom activities for teaching connective relations. It is not within the scope of this study to describe the entire system of coordination/ subordination, nor is it within its scope to give easy solutions to the complex problem of teaching connectives to ESL writers. Rather, this is an attempt to identify the problem for what it is and suggest a possible framework of linguistic theory within which the ESL teacher should work in order to teach connectives more effectively.

In an earlier study of essays written by composition students in the Intensive English Language Institute of North Texas

State University, we analyzed student errors in their usage of connectives. This study revealed what seemed to be three types of connective errors made by these students. Labeled as underuse, misuse, and overuse, these error types seemed to indicate the need for changes in the teaching methods for introducing connectives (Leavelle 1982).

Error judgments were made at that time on the basis of the researcher's native intuition rather than on the basis of a descriptive grammar of connectors. The term 'underuse' was used to refer to instances where a sequence of sentences or ideas seem to lack a clear connection which could have been provided, or where the relationship of the sentences or ideas appeared to be of a more complex logical nature, as in the examples below:

(1) (The wife) learning them (children) every good
     thing because this is her responsibility. She
     know how to treat her husband.

(2) So he believed that only by unifying (the country
     would they be powerful). So he watched his time
     to fight.

Misuse was the label given to those connectives which seem to express the wrong relationship for the ideas being connected.

(3) But I didn't forget to send letters to my parents and
     on the other hand, they replied.

(4) Other reason for moving back is that my mother was
     born and growed up in this city. However, I would
     like to come back to this city. I hope to live here.

The third error type was called overuse and particularly marked the tendency of some writers to use overly many connectives within a short piece of discourse.

> (5) <u>Furthermore</u>, by travelling, I'll be able to learn more languages, beside my English and my native language. <u>Moreover</u>, it will be very exciting to be able to travel after I have studied about that particular country. <u>Therefore</u>, I will be more knowledgible (sic) about that country.

Most nonnative errors can be traced to some extent to either interference from the native language, incomplete knowledge of the target language, or faulty teaching methods. All three reasons can be given for errors in connective use by ESL writers, but pedagogical solutions are not as simple as merely adding a lesson on connectives or drawing parallels to the native construction from English.

One main reason underlying the difficulty of teaching proper usage of connectives is that connectives are in an academic 'no man's land' between the traditional parameters of linguistic study and rhetoric. Linguists have throughout this century prided themselves on studying 'natural language,' and since Saussure at least, have explicitly held that spoken language is their primary data, written language being merely 'derivative.' Examination of linguistic examples reveals that the data of most linguistic study have consisted of 'constructed' examples that more closely resemble written language than spoken

discourse, but which are not naturally occurring examples of contextualized writing. More importantly, most linguists until very recently have assumed that the sentence boundary is the proper extent of linguistic description. Therefore, 'sentences' are presented and described in isolation, outside of any discourse context. Any units above this level have fallen to the rhetoricians to describe.

Rhetoricians, on the other hand, have concerned themselves with themes and their development, paragraph structure, and so on, but have been wary of describing the structural elements which encode a line of argument or provide transition between ideas. Thus, they tend to ignore connectives.

Recent work in text grammars has revealed that there are great differences between the spoken and written forms of English, many of which are reflected in the larger variety of lexical choices made by writers, particularly with respect to connectives. That subordination is used more by writers than speakers has also been noted. This tendency of literacy to encourage subordination and lexical variety can be noted when contrasting literate and non or preliterate languages. Languages with literate traditions tend to use more subordination and explicit ways of expressing logical connections than languages with a primarily oral tradition. Some preliterate societies reportedly speak languages that simply do not have subordination, for example, the so-called 'chaining' languages of New Guinea (Givon 1979:298).

Thus, students whose native languages are primarily oral rather than literate will not be able to make the transition easily to the complex sentence structures and subtly different nuances in meaning of the variety of connectives in written English. Their writing often reflects this in that they tend either to use too little explicit connection, or they use inappropriate connectives for the context in which they are writing.

Another source of trouble is that written language must resort to other ways of reflecting information encoded in the paralinguistic cues of speech such as accent, pause, intonation, etc., which are unavailable in writing. For instance, the use of punctuation and sentence initial position can bring emphasis to a connective. Transition elements and conjunctive adverbs often are used to emphasize a semantic relationship as being particularly important in a stretch of discourse, while some form of subordination can usually be used to express the same connection without the emphasis. Unfortunately, subordination is a much more difficult strategy to learn than is the addition of an introductory element such as a conjunctive adverb. Students will often choose to use a conjunctive adverb or transition expression rather than the semantically corresponding subordinate structure. Therefore, students who understand the logical relations being expressed may still commit errors of overuse by underusing subordination.

Because linguists have only recently begun to talk about the nature of relations beyond the sentence, teaching methods

in applied areas such as ESL have suffered from a lack of theoretical basis in this area. Most textbooks attempt to address the issues involved in connection but few have been able to see connectives as part of a total system of cohesion which must be presented in a balanced fashion. Students will be better writers when they understand not only the placement of connectives and semantic relations which various connectives mark, but also the pragmatic constraints on connectives which control their overall use and how these relate to the use of coordination versus subordination strategies. Teaching methods need to reflect a better understanding of the complexity of interclausal cohesion.

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CHAPTER II

REVIEW

The field of linguistics has experienced some notable changes in the last century. The study of languages other than Indo-European in the early twentieth century caused a general rejection of the prescriptive Latin grammar tradition which had dominated the field. Within the Saussurean tradition analysis of written texts that had characterized nineteenth century linguistics was deemphasized and greater attention was paid to the spoken language. This period saw a rapid increase in the study of nonliterate 'exotic' languages, such as those of native North America. Emphasis was placed on description rather than on prescription. In 1957, Noam Chomsky sparked another theoretical change with his book Syntactic Structures. His theory included the idea that a description of a language's grammar could be made which would generate all and only the grammatical sentences in a language. Even though his rule-based approach to language has proven inadequate to describe structures beyond the sentence, his belief that syntax was central and that semantics and pragmatics followed from it has dominated the thinking of many linguists for the last twenty-five years.

The reluctance of grammarians to go beyond the sentence in description is reflected in many of the grammars written in this

century (see for instance Krapp 1925, Jesperson 1933, Whitehall 1951, Francis 1958, Hockett 1958, Hill 1958, Zandervoort 1965). Francis states that in recognizing the sequence sentence, he was going outside the outer boundary of grammar into the realm belonging to literary critics and rhetoricians. 'The grammar of "continuous discourse" remains to be worked out ' (Francis 1958:409).

Because the early linguists were primarily concerned with relationships within the sentence, the issue of how to describe what were commonly called 'conjunctions' was a real problem in the early grammars. Fries described them as words which express the relationships of clauses. They were labeled as function words, that is 'words that have little or no meaning apart from the grammatical idea being expressed' (Fries 1940:109-110). This 'grammatical idea' was generally thought to be a type of sequential relationship between two sentences. Fries' overall analysis was agreed with and echoed in later grammars (Whitehall 1951, Hockett 1958, and Hill 1958).

In 1952, Fries points out another difficulty with the description of conjunctions: defining what a conjunction is and which words are conjunctions. He notes that even in the American College Dictionary, yet, defined as 'nevertheless', is labeled as a conjunction, while nevertheless, defined as 'however', is labeled as an adverb, and however, defined as 'nevertheless' or 'yet' is labeled as a conjunction (Fries 1952:250).

This lack of agreement in labeling has resulted in the large number of different labels used to name the conjunctions. Whitehall, for example, describes two kinds of conjunctions, coordinating and subordinating. He also distinguishes a class of conjunctive adverbs which operate like other conjunctions but differ in that they carry stress in speech, can introduce paragraphs and sentences which are not in association, can appear anywhere in a sentence and are preceded by a semicolon in initial sentence position (Whitehall 1951:70).

Hill takes the stance that because of the differences of positioning, those elements labeled by Whitehall as conjunctive adverbs should be called adverbs. His reasoning is that structure is more important than function. Since conjunctive adverbs have the attributes of adverbs structurally but function as conjunctions, he prefers not to call them conjunctions. Using structuralist arguments, Hill narrows the field of conjunctions to and, but, or, as, if, because, till, until, although, and unless (Hill 1958:402).

In attempting to describe the function of the elements which connect sentences, Francis labeled a group of terms as sentence modifiers or sequence signals. This includes adverbs (which could modify sentences or elements shorter than a sentence) such as accordingly, before, likewise, and also; conjunctive adverbs such as consequently, furthermore, and moreover; and

prepositional phrases such as on the other hand and in contrast

(Francis 1958:415). Thus, if one chooses to view connection

structurally, as does Hill, the list would be very small; if one

chooses to view connection functionally, as does Francis, the

list could become much longer.

In 1964, Chatman discusses this problem again, and is in

agreement with Whitehall about the basic divisions of coordinating

and subordinating conjunctions and conjunctive adverbs. The mem-

bers of his categories also match with Whitehall's, although he,

like Hill, feels that the conjunctive adverbs are more 'adverbial'

than 'conjunctive' and would better be described as clause adverbs.

However, Chatman further subdivides the coordinating conjunctions

into what he calls 'part conjunctions' and 'clause conjunctions'.

This grouping basically represents those conjunctions which ei-

ther coordinate structures shorter than a clause, or coordinate

clauses. Whether a coordinating conjunction is part or clause

depends on the context in which it is found. For example, and

is a part conjunction in the structure: 'I ran and hid ', but

it is a clause conjunction in the structure: 'I'll run and you'll

hide.' (Chatman 1964:320). It will be seen that this distinction

between these two types of conjunctions becomes very important

in later definitions of conjunction.

Bolinger points out the distinctive characteristic of con-

junctive adverbs which separates them from other adverbs. He

states that they modify the sentences they are part of just as

do other sentence adverbs, but they also 'throw a line' to the

preceding sentence, an attribute that sentence adverbs do not have (Bolinger 1965:289). For example, in the following sentence, the conjunctive adverb <u>however</u> implies something about a preceding sentence while in the next sentence, the sentence adverb <u>generally</u> implies only the presence of the following sentence.

(6) <u>However</u>, we have nothing to show for our time.

(7) <u>Generally</u>, we have nothing to show for our time.

In his important work, <u>Studies in English Adverbial Usage</u>, Greenbaum (1969) attempts to describe adverbs. In dividing adverbs into three classes labeled 'adjuncts', 'disjuncts', and 'conjuncts', he addresses the issue of how 'adverbial' the conjunctive adverbs really are (Greenbaum 1969). The class of adverbs labeled 'conjuncts' is defined in a later work which Greenbaum co-authored with Quirk. Adverbs in this class are not integrated into a sentence structure and serve a connective function. These indicate the connection between what is being said and what has been said before (Quirk and Greenbaum 1973: 126). Again we see that viewed structurally, conjunctive adverbs appear to be like any other adverb. It is this connective function which makes them conjunctive. While this class labeled 'conjunct' includes all the conjunctive adverbs, it also includes by definition any adverb structure which has this connective function. Disjuncts, like conjuncts, are not integrated into the clause they modify, but stand apart from it. They do not have the connective function that conjuncts have. Adjuncts are

part of the clause. Both disjuncts and adjuncts express an
evaluation of the content of the clause which they modify. This
description helped to draw a line between what was and was not
a conjunctive adverb; however, it opened the door to other ele-
ments which were not already included in the three established
categories of conjunction, but which shared this quality of
reaching out into the surrounding context to establish connections.
These include prepositional phrases, enumerators, and other ele-
ments which have been labeled collectively as transition ex-
pressions.

During this same time period, the publication of Chomsky's
Syntactic Structures in 1957 was causing a shift in the emphasis
of mainstream linguistics. One of Chomsky's more influential
claims was that semantic information is not required to analyze
the grammar of a sentence, but that syntax and semantics are
autonomous. The emphasis on syntax as something apart from se-
mantics stifled any common sense desire to examine structure in
light of functions within the system of communication. Because
conjunction involves the relationships between ideas at the se-
mantic level and in a discourse context, very little was said
about the semantics of conjunction in the literature. Collections
of papers on transformational grammar such as Culicover 1977 do
not include discussions of relationships beyond the sentence.

Modern rhetoricians recognized the lack of useful input from
linguists regarding units longer than a sentence. Winterowd

states that transformational grammar has shed little light up to now on sentence coordination, due to its reluctance to cross the sentence boundary (Winterowd 1970:828). Labov has commented on the help that linguistics might have been to writers had it not been so concerned with phonology and syntax, and so reluctant to explore the stylistic variations of language for fear that the techniques of linguistics were inadequate to deal with these (Labov 1972:70).

As more linguists recognized the limitations of the TG approach, attempts were made to include semantics in a formal description. This precipitated the birth of generative semantics which used formal logic (predicate, modal, and intensional) to try to explain and describe the semantics of language (Van Dijk 1981:3). Proponents of such approaches base their ideas on the assumption that language, like mathematics, is totally logical and can be described formally (Heidrich 1975:188). They believe that logical relationships can be described in terms of systems of deduction and induction. Thus, connectives like hence and therefore imply the presence of a deductive syllogism, and signal the reader that the writer is using persuasion to bring about changes of belief in the reader (Isard 1975:295).

From 1970 on, study in the fields of sociolinguistics and pragmatics eroded the belief in the viability of the Chomskyan homogeneous 'ideal' speech community (Van Dijk 1977a:3). Work with speech communities exposed the complexity of the issues of

language use, and, in the process, exposed the inability of formal syntactic approaches to describe language fully. There were some last minute attempts to try to maintain the formal model with Sadock's hypersentences and Labov's variable rules, but to most objective observers interested in describing all facets of languages, these simply were not complete enough (Van Dijk 1977a: 3). Specifically, Van Dijk observes that the current logical systems have been inadequate to describe the connectives because these formal systems are dependent on the existence of truth value relations, a dependency which is not always the case for sentence relations in natural languages (Van Dijk 1977a:12). Givon also addresses the issue of thinking that a speaker of a natural language always assumes what he knows to be true. Givon claims that a speaker assumes only what he believes his hearer believes to be true. Thus, a purely deductive system is not as valid in analyzing natural language as a probabalistic inductive system (Givon 1979:92).

Van Dijk also contends that a pragmatic description of connectives can not be given in terms of the semantic meaning of the individual lexical item alone, but must include a description of those items within a context (Van Dijk 1981:166). Thus, a theory which is based on the belief that syntax is autonomous, and which tries to operate within a formal descriptive model is not sufficient as a tool for the description of connectives. Van Dijk states that a grammar should be a generative description of sentence structure relative to its position in the rest of

the discourse. He expresses his opinion on this subject in the following quotation:

> Apart from the lack of a serious semantics of connectives, there has been another reason for the neglect of their treatment in generative grammar. A study of connectives requires a characterization of the systematic relations between sentences or clauses. Such a characterization has been given only partially, especially of syntactic aspects, in the framework of sentential grammars, but was one of the major aims of recent work in text grammars. (Van Dijk 1977a: 11).

One generative grammar which is recommended by Van Dijk as meeting the criterion of going beyond the sentence is that of Simon Dik 1978, Functional Grammar.

Dik spends some time early in his book outlining the basic underlying differences between formal and functional approaches to linguistic description. While formalists maintain that language is a set of sentences, and its primary function is to express information, functionalists say that language is social interaction and its primary function is to communicate. Formalists believe that the psychological correlate to language is the competence to produce, interpret, and judge sentences. Functionalists feel that the psychological correlate is a communicative competence to carry on social interaction. According to formalists, sentences can be described independently of context and situation, but functional grammar holds that descriptions provide

points of contact with function in setting. As formalists see
it, children construct a grammar using innate universal proper-
ties of language to interpret the scant and 'degenerate' data
they are exposed to, while functionalists feel that a child
discovers a system in a highly structured situation with a great
deal of input. Formalists see language universals as innate and
specific to language, but functional grammar would see them as a
function of the goals of communication given the shared biologi-
cal, psychological, and cognitive context of mankind. Lastly,
formalists typically see syntax as autonomous with respect to
semantics and pragmatics, with the directionality of language
moving from syntax to semantics to pragmatics. The function-
alist camp sees pragmatics as an all encompassing framework within
which syntax and semantics operate. Thus, language direction-
ality is from pragmatics to semantics to syntax (Dik 1978:4-5).

It is interesting to note that Dik states in his preface
that he formulated his functional grammar when trying to des-
cribe coordination constructions using a formalist approach and
discovered that he could not do so without considering function,
a move which TG grammar did not allow for. Dik differentiates
function from category by showing that the words 'the old man'
can be called a noun phrase in any setting, even as they are
printed here; however, they can only truly be called a subject
when they are operating in the context of a sentence such as,
'The old man sat down.' Context is necessary in order to

define function. He also notes that the notion of function is
not limited to syntactic labelings such as subject. There are
actually three levels of function. These are syntactic, seman-
tic (realized by terms such as agent or goal), and pragmatic
(theme, tail, topic, focus) (Dik 1978:12-13). The pragmatic
function is further subdivided into external, (theme or tail),
and internal, (topic or focus). The theme is the universe of
discourse within which a predication functions and to which sub-
sequent predication is presented as relevant; the tail is an
afterthought to clarify or modify. Topic is the referent of
which something is predicated, and focus is the most important
or salient information in a proposition (Dik 1978:19).

Other linguists have proposed grammars which take function
into account. M.A.K. Halliday is the creator and main spokes-
man for a linguistic theory known as systemics. Systemics, like
Dik's functional grammar, works with linguistic concepts on the
semantic and pragmatic levels as well as on a syntactic level.
Many of the pragmatic functional terms such as theme, rheme,
etc., which originated with the Prague School, are used by Halli-
day. Ruqaiya Hasan has also done specific work in the area of
cohesion. Together she and Halliday have written an important
linguistic work titled <u>Cohesion in English</u> (1976).

Cohesion as a concept provided answers to many of the ques-
tions that linguists had raised in their attempts to describe
the function of conjunctive elements. Cohesion is defined as
'the relations of meaning that exist within a text, and that define

it as a text.' (Halliday and Hasan 1976:4). These relations are revealed in the text through cohesive ties which are formed between items in the text which presuppose the existence of other items in the text (Hartnett 1982:210). These items assume that the other items exist somewhere in the text or context. For example, 'It's too bad about Carl's not being able to come ' presupposes that Carl didn't come (Tyler 1978:306). The text created by this cohesion is defined as any passage whether spoken or written which forms a 'unified whole' and is recognized as such by a native speaker (Halliday and Hasan 1976:1). Conjunction is one way in which cohesion is manifested in text. While most of the cohesive elements listed (ellipsis, pronominalization, lexical cohesion, etc.) could clearly be shown to be either lexical or grammatical in their cohesive nature, conjunction is described as being both although it is primarily grammatical (Halliday and Hasan 1976:5-6). In other words, conjunctive elements are not cohesive so much because of their independent meanings but because they express meanings which presuppose the existence of a preceding or following element which complements that meaning (Halliday and Hasan 1976:226). Usually, the relationship expressed is between what has gone before and what is coming up. Conjunction differs from other forms of cohesion in that what is presupposed is usually a unit longer than a sentence (Halliday and Hasan 1976:16). This particular characteristic of conjunction is important in examining frequency of use factors for various conjunctions. Because

function is the primary factor in determining the presence of
a conjunctive tie, Halliday and Hasan recognize the following
categories of elements as functioning as conjunctions: compound
adverbs, some formulaic prepositional phrases, coordinating
conjunctions, subordinating conjunctions, and prepositional expressions with _that_ or some other reference item (Halliday and
Hasan 1976:231).

Another linguist who has taken particular interest in conjunctions as they function in text is Teun Van Dijk, mentioned
previously, who not only has studied the progress of linguistics
from a pragmatic standpoint, but also has attempted to describe
many elements of pragmatic interest himself. It is his feeling
that even text grammars have spent more time on pronouns and
indefinite articles as cohesive elements than on connectives.
His use of the term 'connective' corresponds closely to Halliday
and Hasan's use of the word 'conjunction'. We will be using
the term 'connective' to refer to those elements which signal
a conjunctive tie lexically throughout the remainder of the paper.
To better explain connective, Van Dijk has explored pragmatics
more fully.

When linguists began to seriously consider pragmatics in
depth, the final barriers between linguistics and other fields
of study began to fall. Van Dijk believes that this is healthy;
a theory of pragmatics needs to be interdisciplinary and include
input from philosophy, psychology, and sociology as well as
linguistics. Without this broad base, the theory will lack scope

and will be incomplete in its explanation (Van Dijk 1981:2).
Other linguists have echoed this sentiment.

Halliday and Hasan discuss cohesion as being manifested
both grammatically and lexically. They assert that cohesion
itself is a constraint of text and not of graphics, syntax,
semantics, or context (Halliday and Hasan 1976:65). Van Dijk
prefers to talk about coherence, a term which he says includes
cohesion, but also includes syntactic, stylistic, and pragmatic
constraints. Syntactic coherence is the syntactic means for
expressing semantic coherence and includes pronouns, definite
articles, etc. This category would include the Halliday and
Hasan notion of grammatical cohesion. Stylistic coherence is
the use of style, register, lexical choice, and sentence com-
plexity and length to express coherence. This would include
lexical cohesion. Pragmatic coherence is the sequence of speech
acts which relate conditions of pragmatic context such as sit-
uation, intention, attitude, etc. (Van Dijk 1983:149). Since
conjunction is defined by Halliday and Hasan as being both lex-
ical and grammatical, it would by their analysis overlap the
syntactic and stylistic coherence levels in Van Dijk's model.
Van Dijk takes conjunction or connectives a step further and
includes pragmatic coherence as a function of connection. Thus,
conjunctive elements would span all three levels of coherence.
Van Dijk further explains his view of the pragmatic connective
by observing that in speech, there will be an accent on the prag-
matic connective which emphasizes the relationship of the two

speech acts involved in the connected sentences, while there
will be no such accent on connectives which only connect the
semantic or factual content of the two sentences. The fact
that a connective is functioning pragmatically does not, how-
ever, change the fact that it carries some semantic information
with it (Van Dijk 1981:166).

Another issue which Van Dijk addresses involves his ob-
jection to the TG point of view which would say that sequences
of sentences derive from a single 'S' node and are thus com-
pound sentences. Since he sees that in surface structure, many
sentences begin with connectives, he hypothesizes that the use
of end punctuation preceding some connectives and not others
actually signals paralinguistic cues of speaking such as pauses,
accents, etc. He thus concludes that the variety of punctuation
used before and after connective elements is a reflection of the
semantic and pragmatic information which these connectives are
attempting to communicate (Van Dijk 1977b:20). In other words,
the fact that coordinating conjunctions are usually preceded
by a comma while conjunctive adverbs in initial position in a
clause are preceded at least by a semicolon indicates that in
general, coordinating conjunctions carry less pragmatic infor-
mation than conjunctive adverbs. In addition, when a writer
chooses to precede a connective with a period, it may indicate
that the connective is serving a pragmatic function. Thus, a
writer may connect two sentences with the word and, but if the
writer chooses to end one sentence with a period before beginning

the next sentence with the word <u>and</u>, then he is intentionally
putting emphasis on the idea of addition. consider for example,
the following sentences:

    (8)   The geodesic dome is strong and inexpensive, and

            it is easily expandable.

    (9)   The geodesic dome is strong and inexpensive. And

            it is easily expandable.

In context, the reader would read the first set of sentences
and mentally de-emphasize the word <u>and</u> even as it would be de-
emphasized in speech. In the second group of sentences, the
tendency would be to read the word <u>and</u> with more mental emphasis,
just as it would be accented or stressed in speech. Semantically,
this has the impact of a conjunctive adverb such as <u>in addition</u>
or <u>moreover</u>. From this kind of observation, Van Dijk concludes
that compound or complex sentences are not the same as sequences.
Some connectives connect clauses; some connect sentences. The
punctuation is a reflection of speech cues that communicate prag-
matic information. Van Dijk labels the connectives which connect
clauses as sentential and the ones that connect sentences as se-
quential or textual (Van Dijk 1977b:21). He is not different-
iating exclusive grouping of lexical items although it is clear
that conjunctive adverbs and transition expressions more con-
sistently initiate clauses. Any connector is capable of being
either sentential or sequential.

    This brief review of the literature on conjunctive elements
has shown several characteristics of conjunction. First of all,

conjunctive elements include groups traditionally labeled as coordinating conjunctions, subordinating conjunctions, conjunctive adverbs, and transition expressions. The common characteristic of all of these is the ability to reflect the relationship of at least one proposition to another. This relationship is one of cohesion and involves presupposition. Cohesion by conjunction involves no fewer than two sentences, but can involve more. Because of the necessity of going beyond the sentence level to describe conjunction, a description of it must be based on a grammar which examines structure in light of function in addition to form. For this reason, the best descriptions of connectives to date are those done by functional linguists such as Halliday and Hasan and Van Dijk.

In the next chapter, we will see how differences in spoken versus written language strategies may determine differences in conjunctive use in the two forms. In this same chapter, we will examine the effects that these differences have on the description of connectives as part of a larger system of discourse cohesion, a system which involves subordination, among other things.

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CHAPTER III

THEORETICAL BACKGROUND

Orality versus Literacy

Recent studies comparing written and spoken languages have
shown that there are many difference between them which have not
been carefully examined before. Among the differences always
noted in these studies are the amount of coordination vis a vis
subordination. Ong notes that oral structures tend to be more
additive than subordinative (1982:370). Tannen (1982:42) cites
several studies (Chafe 1982, Kroll 1977, and Ochs 1979) all of
which agree that oral narrative is generally strung together
without conjunctions or with the 'minimal' conjunction <u>and</u>, while
written narrative has carefully chosen conjunctions which show
the relationships between ideas.

Givon 1979 has shown evidence of phylogenetic and ontoge-
netic progressions of language in what he calls the process of
'syntactization'. He states that in all languages, two poles
exist on a continuum of communication modes with every possible
point in between. The two poles are what he calls 'pragmatic'
and 'syntactic'. The pragmatic mode is characterized by topic-
comment structure, loose coordination, a slow rate of delivery,
old-new information word order, a one-to-one ratio of verbs to
nouns, no use of grammatical morphology, and prominent intonation

and stress marks on new information, less on topic. The syntactic mode, by contrast, has a subject-predicate structure, tight subordination, a fast rate of delivery, semantic-case function word order, a larger ratio of nouns-over-verbs with semantically complex verbs, elaborate use of grammatical morphology, but little difference in intonation patterns. These two poles correspond phylogenetically to the development of languages from pidgin to creole, ontogenetically to changes from childhood language to adult language, and for language registers from informal to formal (Givon 1979:222-23).

Specifically, different studies have shown there to be more relative clauses and dependent clauses in written discourse (Wrase 1984:6), longer sentences containing longer words of more variety (O'Donnell 1974:102), more conjoined phrases, prepositional phrases, complement clauses, participles, and attributive adjectives (Chafe 1982:41-4), and more initial subordinating clauses (Kroll 1977:87). On the average, subordinate structures of various types were twice as prevalent in written discourse as in spoken.

On the other hand, spoken discourse had four times as many initial instances of the words and, but, so and because as written discourse (Chafe 1982:39). In general, spoken language appears to more fragmented than written language in the sense that each unit is tied to the next only loosely through coordination; the relationships between ideas are not explicitly stated but must be gathered from the context (Chafe 1982:38).

Several reasons for these differences have been given.
Chafe believes that the primary reason has to do with pro-
cessing time. Because writing takes longer than speaking and
reading takes less time than speaking or hearing, the writer
has time to integrate his ideas with connectives and the reader
has time to assimilate the more complex sequences (Chafe 1982:
37-8).

Nystrand believes that audience distance and the consequent
need for decontextualization is the major factor in producing
more explicit connectives in writing.

> Most written material does not have a well-defined audi-
> ence; once the paper is written, it must stand on its own,
> strangely institutionalized and decontextualized.
> (Nystrand 1982:32).

In speech, the audience is well-defined and the speaker can
better make assumptions about what knowledge is shared by his
hearer. This is less true for writing. The writer cannot
make as many assumptions about 'shared knowledge' and must be
more careful to fill in contextual gaps in the text. A speaker
looks to his own convenience, relying more on the context of
situation to make his meaning clear and 'fill in the gaps.'
Writers rely more on syntax and organization for clarity (Ong
1982:378). Givon describes formal writing as 'a mode of com-
munication in a mass society of strangers.' He states that this
type of writing typically involves careful preplanning, cor-
rections and rewriting. This type of activity is missing in
informal speech (Givon 1979:231).

Studies of child acquisition of connectives reveal that children do not acquire the more complex logical relations until later in their development and that subordination is directly tied to age and level of school. Small children learn the various possible meanings of and first and in the following order: additive, temporal, causal, and adversative. Children are also not consistently able to interpret statements such as

(10) Before he kicked the rock, he patted the dog.

But they had no trouble with

(11) He patted the dog before he kicked the rock.

These data seem to indicate a reliance on the temporal ordering more than the semantic meaning of the word before in interpreting the sentence, such that clausal order is assumed to reflect order of events in real time (Ching 1982:6-7). In another study of children aged nine to fifteen, Harrall noted more subordinate clauses in writing in speech, with differences increasing with age (O'Donnell 1976:103). As Givon points out, it appears that the acquisition of literacy increases children's grasp of syntactic complexity and moves their language from the pragmatic mode to the syntactic mode (Givon 1979:224).

The shift from orality/coordination to literacy/subordination is not limited to children within a literate culture. Thompson and Longacre note that adult native speakers of Indian languages who had been exposed to Spanish began to borrow subordinators from Spanish. They cite several possible reasons for the borrowings: influence from a higher prestige language,

allowances in these particular languages for such a morphemic structure, and the creation of new patterns in the native language to reflect new logical patterns from the second language (Thompson and Longacre 1978:54-5). They also noted that in nonliterate languages such as the Phillipine language, Itneg, there is a connection system which would be considered rather boringly limited in English. They add that 'when literacy and writing are firmly established in a community, there follows a fresh reaching forth for the resources of the oral language to enrich the written style.' (Thompson and Longacre 1978:67).

Kenneth Pike gives an example of a speech community which was both totally oral and isolated from influence from literate prestige languages. After literacy was introduced into the community in the native language, subordinate structures began to appear in the writing which had not been in the language before (Pike 1984). Givon points out that in some 'preindustrial, illiterate societies with relatively small homogeneous social units' it has been shown that subordination does not exist at all (Givon 1979:298). Rader (1982:186) discusses the issue this way:

> In order to be a vehicle for autonomous communication in speech or in writing, a language must develop the resources (these include syntactic resources such as relative clauses and other kinds of subordinate structures, and lexical resources, especially subordinating conjunctions) to mark subtly different logical relationships.

While the differences between spoken and written languages have not been analyzed until fairly recently, there has been some awareness of the differences. In general, writers have been encouraged to use more subordination in classroom situations, and good writing has been and still is often evaluated as writing which has more variety of lexical items and more subordination.

In 1940, Fries comments that, '...and appeared 50% more times in Vulgar English than in Standard English ' (Fries 1940: 209). Whitehall comments also on the lack of connective variety in spoken English. He states, '...the conjunctional system of colloquial spoken English can only be described as impoverished ' (Whitehall 1951:74). Note the disparaging terms used to refer to spoken varieties of English.

More recently, rhetoricians comment that it is preferable for writers to write with what is known as 'syntactic fluency'. 'Syntactic fluency is nothing more than the ability to use the syntactic resources of the language to embed proposition within proposition...' (Winterowd 1976:206). This idea reflects the effects of transformation grammar on the field rhetoric. Studies have been done to see if the study of TG grammar helps in the improvement of writing. It was thought that the TG concept of embedded sentences might help students to see the relationships of syntactic units within sentences. Although the studies were inconclusive about TG grammar as an aid to better writing, it

is generally agreed that greater subordination is usually found in the papers of writers who are labeled as being good (O'Hare 1971:2).

Several of these types of studies have been done with college freshman papers. In each of these studies, papers were evaluated in some holistic way as good or bad, then tests designed to measure syntactic maturity were applied to see what made better papers better. Generally, it was agreed in all studies that better writers used more subordination, greater lexical variety, and more cohesive ties of different kinds (Witte and Faigley 1981, Anderson 1980, and Hartnett 1982).

Thus, the prevailing attitude has been that the use of increased subordination in written English is somehow superior to a written English which relies on typically oral strategies, presumably because of the ability of subordination to convey the more subtle connections of language. In support of spoken language, many point out the superiority of immediate context and nonverbal factors in oral communication. Their attitude is that this increased subordination and lexical complexity is only a substitute for the features of speech which cannot be encoded in writing, but which have important semantic and pragmatic roles.

Tannen points out that cohesion is established in spoken discourse in part through paralinguistic features such as pitch, tone, speed, and expression while written discourse must rely more on careful lexical choice for cohesion (1982a:41). A simple coordinating conjunction can, with the help of these kinds of

features, carry a large semantic and pragmatic load. Kroll
singles out the coordinating conjunction and and states that
it can function pragmatically in discourse to fill space, hold
the floor, or indicate that some connection is being made in
the speaker's mind. She states:

> While it is possible to view the word and as being a weak
> connector in that it does not specify an explicit relation-
> ship between ideas the way many subordinate markers do, we
> might instead view the word and as the major cohesive stra-
> tegy for linking ideas in these casual spoken narratives.
> (Kroll 1977:95).

Halliday notes that although it is true that spoken lan-
guage tends to use a few markers like and, but, or, for, then,
and so to mark many different relationships in different contexts,
it is the nature of conjunction to state explicitly a relation-
ship which already exists in the context between two propositions.
Thus, the same logical relationships occur in both speaking and
writing. They are simply expressed in different ways, ways that
are functionally appropriate to the communication situation
(Halliday 1984).

A good example of the ability of these spoken connectives
to express a variety meanings is again the word and. Fries
states that and can mean not only additive, but also emphasis,
adversative, conclusion of conditional, introduction of an ex-
planatory clause, and connection of two unequal verbs (Fries
1940:217-20). Van Dijk also believes that the conjunction idea
of and is so general that it can express many different meanings.

For example, 'Give me that book, and I'll show you the picture.' expresses the connection of if...then (Van Dijk 1977b: 39). Quirk and Greenbaum list eight possible semantic implications of coordination by and as follows:

    (12) (a) The event in the second clause is a consequence or result of the event in the first.

           e.g. 'He heard an explosion and he phoned the police.'

    (b) The event in the second clause is chronologically sequent to the event in the first.

           e.g. 'She washed the dishes and she dried them.'

    (c) The second clause introduces a contrast.

           e.g. 'Robert is secretive and David is candid.'

    (d) The second clause is a comment on the first.

           e.g. 'They disliked John--and that's not surprising.'

    (e) The second clause introduces an element of surprise in view of the content of the first.

           e.g. 'He tried hard and failed.'

    (f) The first clause is a condition of the second.

           e.g. 'Give me the money and I'll help you escape.'

    (g) The second clause makes a point similar to the first.

           e.g. 'A trade agreement should be no problem, and a cultural exchange could be arranged.'

(h)   The second clause is a 'pure' addition to the

first.

e.g.   'He has long hair and he wears jeans.'

(Quirk and Greenbaum 1973:257)

Quirk, Greenbaum, and others have also shown that other

common connectives such as but, or, then, etc. have much the

same general semantic properties as and. From the above, we

can conclude that spoken language does not express fewer logi-

cal relationships than written language. Rather, the written

language must often rely more on the variety of choices avail-

able to the writer who has more time to think and choose in

order to compensate for a less rich context. For the ESL writer,

this array of choices can be confusing, especially in light of

the syntactic complexity which the subordination system of En-

glish entails. What is needed is a description of these con-

nectives which transcends syntactic boundaries.

Semantic Dependency

The relationships which are marked by connectives cannot

be discussed in terms of syntax only, for as we have seen, the

complex sentence structures of which written English consists

are not common to all languages, and certainly not to languages

of a primarily oral tradition. However, all languages are sy-

stems of communication which are used to interpret, organize,

and express real world experience. Thus, at the semantic and

pragmatic levels, languages are similar. For this reason, we

should attempt to discuss connectives as manifestations of underlying semantic and pragmatic cohesive relationships.

Linguists have traditionally viewed coordination and subordination from the standpoint of syntactic structure alone as manifested in compound and complex sentences. For instance, in 1958, Hockett discussed an independent clause as one in 'proper shape' to be a simple sentence. He states that dependent clauses are ones which may either begin with subordinating conjunctions or contain a nonfinite verb form (Hockett 1958:205).

Coordination was traditionally believed to be the relationship which exists between two structurally independent clauses, while subordination was held to be the relationship between a dependent clause and an independent clause. These relationships could be marked by coordinating conjunctions or subordinating conjunctions respectively (Whitehall 1951:66-7). Zandervoort 1965 indicated that coordination could also be marked by nothing at all, or a semicolon, or it could be marked by adverbs such as still, yet, indeed, however, etc. Clearly, this analysis reflects the reliance on the sentence boundary and structure as the primary tools of measurement. The problem with this analysis is that there is no distinction between structural dependence and semantic dependence. It is the semantic dependence which we will find to be universal, although it may be manifested in many different ways syntactically.

Linguists who study a variety of languages have, in attempting to describe cohesive relations in these languages, questioned traditional parameters for evaluating coordination

and subordination. Viola Waterhouse argues that her analysis
of aboriginal languages makes it clear that the traditional
view of the structurally complete sentence as independent can-
not be valid; that, in fact, some features in languages cause
sentences to be dependent on others for meaning. This depen-
dency forces those sentences to be part of a larger unit of
discourse. She includes in her list of features semantic in-
formation which somehow completes an otherwise incomplete
situation (such as an answer to a question), anaphoric refer-
ence, and sequence marking particles or phrases (such as English
conjunctive adverbs) as examples of structures which force sen-
tences to be dependent (Waterhouse 1963:45).

This idea is found later in Halliday and Hasan's Cohesion
in English, which analyzes those devices in English which cause
text to be formed. Their analysis includes and expands the Wa-
terhouse list of cohesive elements which create semantic depen-
dency between units of discourse. We might say then that cohesive
devices contribute to and reflect semantic dependency.

Another step in examining semantic dependence is to think
in terms of dependencies between units which are not limited by
the structural boundaries of the sentence. This has been done
by attempting to create new terms to describe those units which
are joined by cohesive devices but which may or may not be li-
mited to the boundaries of a sentence or clause. Terms such as
proposition, idea unit, discourse unit, etc., have all been pro-
posed and defined as potential units above the level of the

sentence. Pitkin 1969 has used the term 'discourse bloc' to include any element of discourse from the complex word to a group of paragraphs which comprise a single relatable idea. It is his assertion that discourse blocs relate to each other in similar ways at all levels of discourse. He discusses the concepts of coordination versus subordination within his framework and derives four levels: simple coordination, complementation, subordination, and superordination. Simple coordination and complementation are said to be horizontal relations while subordination and superordination are said to be vertical.

Both simple coordination and complementation describe the relationship between two discourse blocs which are equal in terms of semantic generality. Simple coordination describes the relationship between two discourse blocs that are equal in relation to a superordinate category. For example, dog and cat are coordinate to each other as they both are equal in relation to the superordinate semantic category of pet. Complementation is the relationship that exists between two discourse blocs that are meaningful only in terms of the relationship that exists between them. For example, a question is meaningful only in the context of its answer and vice versa.

Subordination and superordination are vertical in the same way that an outline is vertical. In a sense, the relationships of subordination and superordination are the same, it is the direction which is different. Subordination is the relationship of genus to species, while superordination is the relationship

of species to genus. Tyler discusses this concept also. He states that when we use the words for example, we are in effect subordinating what follows to some general principle that precedes (Tyler 1978:353). Superordination would take place when a group of particulars is anaphorically referred to by a more general term or summary statement. Again, Pitkin feels that these relationships exist at all levels of discourse. Thus, he is working outside of a syntactic framework in describing his coordinate/complement and subordinate/superordinate relations. He states:

> The structure of written discourse--like the structure of the complex word, the phrase. the clause--is hierarchcal units embedded within or added to still larger units; and at any level of the continuum the units are to be discovered not by their shape on a page, not by how long they are or how they are punctuated, but by what function they are serving in the discourse. (Pitkin 1969:141).

There is support for Pitkin's ideas in the discourse analysis literature. Labov and Waletzky have studied the structure of oral narrative and have discovered that there are basically four clause types, which they call coordinate clauses, narrative clauses, free clauses, and restricted clauses (Labov and Waletzky 1967:22). Although there is not a neat one to one correspondence between the Pitkin divisions and the Labov and Waletzky clause types, the ideas of coordination seem to be similar, and the concepts of complementation, subordination, and superordination

would fit into the descriptions of the semantic ranges of free, narrative and restricted clauses. Labov and Waletzky label as coordinate any two clauses which can be interchanged without changing the semantic structure of the narrative. These two clauses would then have Pitkin's simple coordinate relationship as they have an equal relationship to the superordinate narrative line. We can also see that narrative clauses, which are those which cannot be moved without changing the narrative, have a type of complement relationship among themselves since they are interdependent on each other to form the narrative. Free and restricted clauses have more freedom of movement within the whole narrative and thus do not establish a set relationship which can be analyzed outside a text. We can see that in each of these analyses, semantic relations to the surrounding ideas are what are used to classify connections.

The distinction of coordination to complementation helps explain why one can say both (a) and (b) below, but not both (c) and (d).

(13) (a) He stamped his foot and he clapped his hands.

(b) He clapped his hands and he stamped his foot.

(c) It is raining and it will not stop raining until tomorrow.

*(d) It will not stop raining until tomorrow and it is raining.

The relationship of the clauses in (a) and (b) is one of simple coordination while the relationship of the clauses in (c) and

(d) is one of complementation in that they are dependent on each other and the ordering of (c) for meaning as a text.

We might conclude that the concept of simple coordination as a relationship between units of semantic information has less semantic dependence than the relations of complementation, subordination, or superordination. In the next section, we will discuss the functions that connectives play in discourse.

Discourse Functions

We mentioned before that cohesive devices are one way of establishing semantic dependency. Cohesion, as Halliday and Hasan (1976) have defined it, involves what they call presupposition insofar as cohesive ties presuppose the existence of some element in either the preceding or following text. In cohesion by conjunction, it is the relationship between what precedes and what follows that is being marked (1976:227). Although Halliday and Hasan limit most of their attention to cohesion between sentence-sized units, they do state that cohesion through conjunction usually presupposes a passage which is longer than a sentence (1976:16). They also state that conjunctive cohesion does not honor written sentence boundaries (1976: 233). Thus, they recognize that the sentence itself is not the domain to which cohesion by conjunction is limited although they continue to use the term 'sentence' in the text.

Tyler discusses semantic/pragmatic presupposition itself as a connecting force, independent of any overt relator. 'Finding an appropriate presupposition is one general means of

establishing a connection between sentences in a discourse even when there is no overt sign connecting them (Tyler 1978: 352). Such an observation further complicates the problem of assigning a specific functional meaning either to the individual lexical items or the construction types themselves.

These elements of semantic dependency which have been described here (presupposition, semantic inclusion, etc.) perform certain tasks within a discourse unit. Among these are topic maintenance and introduction, foregrounding and backgrounding, and text continuity/discontinuity.

Topic introduction/maintenance is one aspect of semantic dependency across clauses in a discourse. In recent years, the notion of topic has largely been limited in its scope to a discussion which has centered around the distinction between 'topic' and 'subject' at the sentence level. Some have even implied that subject was just a 'grammaticalization' of topic. Recently, Givon (1979), in a discussion of switch reference, points out that 'topic can only be evaluated in light of its discourse function. The particular function he considers is that of continuity versus 'surprise'. Continuity can be found in three aspects of discourse: thematic continuity, action continuity, and participant or topic continuity.

Thematic continuity is an aspect of discourse which has been familiar to rhetoricians and composition teachers for a long time, but which has only recently been analyzed as a linguistic phenomenon. Terms such as thesis idea, topic sentence,

<u>key</u> <u>word</u>, etc. have been part of the language of rhetoric for centuries. These terms have referred mainly to the tracking of one 'main idea' or purpose throughout a planned, written text. The 'theme' is then reemphasized through the use of topic sentences in paragraphs, conclusion statements, repeated key words from the main idea, and so forth.

Action continuity is closely related to narrative structure. Technically, it is the chaining of predications in a way that is cohesive and provides 'temporal or causal sense'(Givon 1979: 54). Those clauses which are outside of this sequence are known as backgrounding. Those within it that push forward the 'event line' are known as foregrounding (Givon 1979:54).

When a particular participant appears consistently in each of a sequence of foregrounding clauses, the participant is a topic of that sentence and of the surrounding discourse. This is known as topic continuity. The concept of topic continuity finds support in Li and Thompson, who, in their important discussion of subject and topic, describe topic as 'the center of attention; it announces the theme of the discourse.' (1976: 464). In the same volume, Keenan and Schieffelin describe topic in the context of primarily spoken discourse in which referents 'agree' on a topic and 'collaborate' or 'incorporate' that topic into their discourse. The stretch of discourse in which this topic incorporation takes place is called 'continuous discourse' (Keenan and Schieffelin 1976a:342).

In stretches of discourse which are not linked in this way, no claim or 'presupposition' is being made about topic from the previous utterance. This type of discourse is called 'discontinuous discourse'. In this type of discourse utterance, the topic may be being changed either by reintroduction of a previous topic, or by introduction of a new topic (Keenan and Schieffelin 1976a:342). Every utterance or sentence carries a topic. Keenan and Schieffelin assert that each has a discourse topic that functions in the discourse either continuously or discontinuously.

> A discourse topic is a proposition (or set of propositions) expressing a concern (or set of concerns) the speaker is addressing. It should be stressed that each declarative or interrogative utterance in a discourse has a specific discourse topic. (Keenan and Schieffelin 1976a:343).

We can see that in general, sentence topic and discourse topic are basically the same. The sentence topic either functions to continue the topic from the previous utterance or topic in foregrounding, or it functions as a change or discontinuity of topic in backgrounding.

Givon notes that foregrounding tends to be syntactically realized as main clauses, while backgrounding tends to be realized by subordinate clauses (1979:55). We will see more details on syntactic realizations in Chapter Four.

The Labov and Waletzky study (1967) contributes to our understanding of continuity/discontinuity as it applies to narrative structure. In their study, those clauses which were

listed as narrative clauses could be said to be foregrounding
while those clauses which they call free clauses could be called
backgrounding, as they provide background material to but do not
advance the story line. A study of narrative versus definition
discourse structures by Allen Munro and Lynn Gordon has shown a
difference in the intersentential semantics of the two types.
They discovered that narrative clauses which advance the story
line and cannot be moved or deleted without changing the seman-
tics of the story, contain intersentential relations which might
be called causal, while in definitions, the relationships be-
tween clauses often are of semantic coordination. The only times
that the clauses used in the definitions were not clearly in a
coordinate relationship were when two clauses together provided
a sequential or narrative type of descriptive definition (Munro
and Gordon 1981). These data would indicate that backgrounding
and foregrounding are discourse functions which are established
through semantic dependency correlating with syntactic subordin-
ation versus coordination. It further seems to suggest that the
choice of rhetorical development has an effect on the amount of
foregrounding and backgrounding found in a discourse. Narrative
would tend to have more foregrounding, while expository writing
such as definition, which serves the purposes of amplifying,
would consist more of backgrounding.

Recently, some of Thompson's work has also been concerned
with the description of discourse topic. The structure of topic
in discourse is often described as one of topic/comment. At the

sentence level, this may take the form of a subject followed by its predication (Hockett 1958:191). Thompson and Longacre show that at the discourse level, the topic/comment structure may consist of a subordinate/main clause structure in which the semantic content of the subordinate clause is a summary mention of the discourse theme of the preceding unit of discourse and the main clause is an assertion about the relationship of the preceding discourse and the following. This type of structure is known as summary linkage. Another type of linkage is known as tail-head linkage. In this type, the summary is in the last unit of the preceding discourse as a type of conclusion. The summary is then restated in the first unit of the next larger unit of discourse. Very often, this will be a subordinate clause, followed by a main clause carrying a comment on that topic. The example below illustrates this relationship between two sentences.

(14) <u>When it was almost the middle of the morning</u>, then I returned and stopped by to eat some young coconut on the path. <u>While I was still eating the young coconut</u>, I just saw Awey coming from downstream carrying a small bag over his shoulder. (Thompson and Longacre 1978:71).

In each underlined subordinate clause, backgrounding information is taking place, while in the main clauses that follow, the story line is being advanced in foregrounding. The subordinate clause of the second sentence restates a summary of the activity

of the main clause which precedes it. This, then, is an example of tail-head linkage in discourse. In both types, tail-head and summary, the summary can form a type of superordination relationship between the preceding unit of discourse and the first part of the next unit of discourse, particularly if the head part of linkage summarizes many smaller more loosely arranged ideas.

We have described semantic dependency as the relationships between units of discourse which cause them to depend on each other for meaning within the context of a text. We can see that this semantic dependency is a component in the discourse functions of topic introduction and maintenance as it is manifested in discourse units of backgrounding and foregrounding, and as it allows for continuity and discontinuity. Syntactically, these appear to be primarily manifested as various degrees of subordination and coordination. Using our semantic descriptions of coordinate and subordinate clause types, we will now look at some of their possible syntactic realizations in English.

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CHAPTER IV

SYNTACTIC CONSEQUENCES

The Semantic Dependency/Syntactic
Complexity Continuum

Up to this point we have seen that a description of con-
nectives can be revealing only when the semantic relationships
and pragmatic constraints on complex sentences have been con-
sidered. We have also seen that the ways in which semantic
relationships are encoded syntactically differ for oral and
literate languages, and for spoken and written discourse in one
language. Earlier we discussed the fact that cohesion through
the tie of conjunction is manifested both lexically and gram-
matically. In this section, the lexical and grammatical mani-
festations will be arranged on a continuum of syntactic complexity
which parallels a continuum of semantic dependency arranged by
level of discourse function and presupposition.

The idea that a continuum of semantic dependency exists and
can be described finds support in a paper by Keenan and Schief-
felin (1976b). They assert that there are degrees of independence
for predications based on how formally integrated the predications
are. In particular, they cite conjunctions, adverbs, anaphora,
etc. as formal manifestations of the semantic relations between
utterances, and state that these form a continuum where acts of

communication may be measured for varying amounts of dependence. They state that such a continuum can be used to characterize properties 'within and across languages' such as written and spoken properties, topic prominence and subject prominence properties, and ontogenetic development (Keenan and Schieffelin 1976b:255). Givon (1979) also discusses the continuums of spoken and written languages and ontogenetic development, but in addition, he discusses phylogenetic development, and informal and formal language properties. In each of these cases, a movement toward what he calls 'syntactization' takes place, so that language tends to move toward more syntactic complexity as it becomes increasingly literate and develops a formal style. A syntactically complex language is characterized by embedded clauses, more verbs per proposition, and more arguments per verb.

Semantic complexity is, among other things, ordered by the complexity of the presupposition. The most complex presupposition is one which presupposes a particular which is not easily recoverable in the communication situation and can rely only on general pragmatic knowledge for identification. The least complex is one which presupposes an item in the nearby context of the discourse itself (Givon 1979:75). Complexity in these cases is measured then by the distance between interlocutors in a communication act. For example, two intimate friends will share more knowledge; thus, their communication will be less complex than that of the writer and reader of a journal in which the writer must provide almost all identifying information in the text itself (Nystrand 1982).

We use 'presupposition here in the same sense that Halliday and Hasan use it in Cohesion in English. They assert that cohesion occurs when a tie 'presupposes' the existence of another item in the text. They go on to say that cohesion does not take place because of presupposition alone--the presupposed item must be present in the text (Halliday and Hasan 1976:3). This is not altogether true. Sometimes a presupposed item is in the context, or it is part of the assumed shared knowledge of the hearer/reader. Cohesion fails to take place when a particular is not identifiable, whether or not it is present in the context or text.

In order to be more clear about the meaning and scope of presupposition as we use it here, we will rely on the more specific terminology used by Copeland and Davis (1980) to specify an assumption made by a speaker/writer about the knowledge he shares with his hearer/reader. The goal in an utterance is usually to communicate a proposition. Propositions are made up of particulars and predications about those particulars. A particular is always related to a domain of which it is a unique instance (Copeland and Davis 1980:124). For example, 'Nurse Jones' is a particular in the domain of 'nurses'; 'Parkland Hospital' is a particular in the domain of all hospitals. In preparing to state an utterance, a speaker makes certain assumptions about what his hearer knows. One assumption is that a hearer has certain particulars in his immediate consciousness; another is that a certain term uttered by the speaker will cause a desired particular to enter the consciousness of his hearer. A third

is that the consciousness of the hearer is limited in scope; thus, some referents will require more prompting than others (Copeland and Davis 1980:125). When a particular is referred to in some way by the speaker, it can have any one of six states of identifiability in the mind of the hearer, ranging from maximally identifiable and conscious to totally unknown. These are Given, Some, Recoverable, Computable, New, and Novel. Table I in Appendix A taken from Copeland and Davis demonstrates the characteristics of each status. It is the responsibility of the speaker to signal his hearer as to the assumed status of a particular. This responsibility has been called the 'Given-New' contract. The English speaker signals his hearer by using definite articles or indefinite articles, pronouns, etc. We see that the closer to Novel that a particular is, the harder it is for a hearer to identify it or locate it in prior experience, and the more information must be given by the speaker.

As we have stated before, speakers generally may assume more about what contextual knowledge is shared by their hearers than writers can of their readers. Keenan and Schieffelin address some of the reasons for these assumptions. There are several nonverbal behaviors related to the establishment of a particular as topic in a discourse which are unavailable to the writer. These include eye contact, touching, pointing, laughing, crying, tugging, etc. (Keenan and Schieffelin 1976a: 353). An exchange of this type is impossible in writing. Because of the Given-New contract, it is the responsibility of

the speaker to refer to individuals, objects, and events in a way that allows the listener to identify them (Keenan and Schief-felin 1976a:360). This task is much more difficult for the writer than the speaker. However, the writer is not totally without some assumptions about generally shared world knowledge. For example, Tyler points out a phenomenon known as 'entailment' in which context controls certain assumptions. For example, a reader will assume that all birds fly unless ostriches are under discussion (Tyler 1978:303). But, in general, the writer will rely to a greater degree on more syntactically complex structures in preplanned discourse to make clear the particulars he wishes to discuss.

In addition to presupposition or identification of parti-culars, another measure of semantic complexity is that of continuity; structures which are highly discontinuous or which signal surprise will be more semantically complex than those which signal predictability and continuity. Thus, we might say that backgrounding tends to be more semantically complex than foregrounding (Givon 1979:76). Hopper discusses the semantic and syntactic characteristics of foregrounding and backgrounding (which differs in terms of semantic complexity). Foregrounding clauses are characterized by active, perfective, punctual verbs which tend to state completed action. Foregrounding clauses typically assert information about a clearly identifiable sub-ject which is also usually a human topic in a realis situation. The focus, or that information in the clause which is most

salient or important, is generally unmarked. That is, it is usually realized in the predicate portion of a main clause.

Backgrounding clauses, on the other hand, usually have stative, imperfect, durative or iterative verbs which describe situations which may co-occur along with the narrative action. The purpose of backgrounding is to support, amplify, or comment on a variety of topics, often in an irrealis mode. The focus is generally syntactically marked with frequent changes of subject. This marking often takes place in subordinate clauses (Hopper 1979:215). As we pointed out earlier, backgrounding is characteristic of expository passages such as definition (Munro and Gordon 1981).

'Finiteness' is another scale of semantic dependency. It is measured in a proposition by its temporal or causal independence from other events and by its subject/agent's independent control. Those propositions with the least causal, temporal freedom and the least independent subject/agent will be most semantically dependent (Givon 1983:65). In the following examples, the initial clause of (15) is less finite and less dependent on the second clause than the initial clause of (16).

(15) Having eaten lunch, George left quickly.

(16) George ate lunch, then he left quickly.

A look at Table II in Appendix A shows the relationship of various lexical and grammatical structures to the semantic dependency continuum. This syntactic complexity continuum reflects not only the spectrum of connective choices available to a writer,

but it also reflects the phylogenetic development of languages
and ontogenetic development of child language acquisition from
the more pragmatic oral mode to the more syntactic literate mode.

At the least syntactically complex end of the continuum, we
find simple coordination. In simple coordination, the main
clause pairs are adjacent and unordered. There is little or no
need for identifying a particular outside of the immediate con-
text, and the clauses are generally syntactically and semantical-
ly independent and finite. This type of speech is characteristic
of children in particular. In the following example, a three-
year-old describes his swimming lesson.

(17) I dived off the big board. I swam at the big pool.
Note that although these events did not co-occur, there is no
particular ordering.

The next step on our continuum of syntactic complexity is
what we call main clause adjacency. Syntactically, this resem-
bles simple coordination, but these clauses usually have temporal
or causal ordering, which is marked through a system of tense/
aspect/modality. Particulars are usually presupposed from the
preceding proposition and are readily identifiable in the con-
text. Both action and topic (two of three types of continuity
described in Chapter Three) are their most continuous in this
type of structure. The clauses themselves are finite and inde-
pendent, but often the topic as well as the tense form are shared,
causing them to be less independent than those of simple coor-
dination. Given the context of a person named John who is

cooking soup, the following example shows a causal relationship in adjacent main clauses.

(18) John turned the burner on high. The soup boiled over.

The next step is the lexical marking of an overt connection between two main clauses by a coordinating conjunction. These main clauses may or may not form orthographically independent sentences. Like adjacency pairs, the clauses may be ordered by some temporal or causal relationship. The relationship may also be additive or adversative. The adversative relationship tends to be more discontinuous and toward greater semantic dependency. The coordinating conjunctions themselves are very general semantically. The context of the discourse itself provides most of the semantic information about the nature of the relationship. The semantic load here is greater in the sense that the overt lexical marker definitely signals the hearer/reader to look in the surrounding context for a connection. In a speech situation, the hearer will often receive additional cues regarding the nature of the connection through intonation, pauses, accent, etc. The relationships here are still between relatively independent finite clauses with high predictability and continuity.

(19) John turned the stove burner on high, and the soup
        boiled over.

If, however, the coordinating conjunction is marking an adversative relationship, the continuity will not be as great. Adversative relationships express 'surprise' and, therefore,

unpredictability. This can be seen in the relationship of the
two clauses in the following example:

(20) John turned the stove burner on low, but the soup
still boiled over.

Conjunctive adverbs and transition expressions, as well as
coordinating conjunctions, can mark a relationship between main
clauses whether or not the clauses form orthographically indepen-
dent sentences. In addition, conjunctive adverbs seem to have
the ability to indicate relationships between larger units of
discourse than the clause. Often they act as connectors between
paragraphs in structures similar to the summary-head and tail-
head linkages discussed earlier. Also, conjunctive adverbs and
transition expressions are more limited in their semantic range
than are coordinating conjunctions. They often mark points of
surprise or discontinuity in the text, thus functioning as back-
grounding.

Their marking of discontinuity in the text is similar to
the property of 'internal' conjunction described by Halliday and
Hasan. Internal conjunction is a property distinct from 'exter-
nal' conjunction which relates events in an 'experiential' or
'objective' manner. Internal conjunction relates events in a
'interpersonal' or 'subjective' manner, referring to the writer's
or speaker's attitude toward the assertion it introduces. Coor-
dinating conjunctions can be either external or internal, while
conjunctive adverbs and transition expressions are usually la-
beled as internal. Halliday and Hasan state that external con-
junction typically takes place in narrative discourse while

internal conjunction is more likely to characterize an internal argument in the text itself. We have stated that foregrounding is more typical of narrative, while backgrounding is more typical of expository or argumentative writing. We might assume that conjunctive adverbs and transition expressions will be more typical of backgrounding than foregrounding.

Since clauses marked by conjunctive adverbs and transition expressions are less continuous in both topic and action, they are less 'predictable'. In cases where the conjunctive adverb or transition relates two large blocks of discourse, such as two paragraphs, identifying a particular becomes more difficult. Often the topic is the entire contents of the preceding paragraph. We have seen this type of relationship in the summary-head linkage described in Thompson and Longacre 1978.

The next point on our scale of syntactic complexity is the finite adverb clause connected to a main clause. In the past, linguists have equated the different positions of adverb clauses in relationship to the main clause as having the same function in relation to the discourse text. However, we are going to limit our discussion to the initial adverb clause in talking about conjunction because there seems to be a difference in discourse function between initial and final adverb clauses. This position finds support in the recent research on purpose clauses done by Thompson. She asserts that an initial purpose clause in discourse serves the function of creating an 'expectation chain' in which the reader is presented with a 'problem' through the

purpose clause with the expectation of receiving a solution in the following main clause. Thompson states, 'In this way the initial purpose clause helps to <u>guide the attention</u> of the reader, helping to signal the thematic development of the text, and thus serves as a discourse organizing device. The final purpose clause does <u>not</u> play this role.' (1983:2).

The initial subordinate clause has the ability to organize discourse and signal its thematic content. This function is dependent not on its being finite or nonfinite, but on its position. In the initial finite adverb clause, the cohesive relationship is being established not only through the adverb (often a subordinating conjunction) which heads the clause, but by the entire adverb clause itself. The adverb clause functions as a conjunctive adverb would in relation to the preceding discourse and following assertion (Bolinger 1965:289 and Thompson and Longacre 1978:1). The cohesive relationship is twofold; not only does the adverb clause have a conjunctive relationship to the following main clause, it also refers to the particulars mentioned in the preceding discourse unit. Such subordinate clauses primarily serve in summary linkage or tail-head linkage constructions described by Thompson and Longacre (1978) which we again have mentioned before. The relationship is marked not only by the initial adverb in a conjunctive tie, but through 'lexical overlap' as well. This takes place where part or all of a discourse unit is repeated or paraphrased in the adverb clause (Thompson and Longacre 1978:64). This type of structure

is backgrounding, which Hopper says is generally carried out
through subordinate clauses (Hopper 1978:215).

The initial adverb clause in its function as discourse
organizer often marks another characteristic of backgrounding
mentioned by Hopper, the tendency for topics to change frequent-
ly. Thompson and Longacre assert that the adverb clause is
itself the topic of the sentence to which it is subordinate.

> At the level of the individual sentence we can say that
> an adverbial clause whose role is to maintain cohesion
> within the discourse as a whole is functioning as a topic
> with respect to the sentence to which it is attached.
> (Thompson and Longacre 1978:90)

The characteristics which they use to identify topic are sentence
initial position, discourse dependence, definacy, and the ability
to establish a 'spatial, temporal framework within which the
main predication holds'. Finally, topics do not necessarily
have to be arguments of the main predicate (Thompson and Long-
acre 1978:90). Since topic does not have to be an argument of
the main predicate and since the initial position adverb clause
has these characteristics, it serves as a topic of many discourse
blocs. This overt marking of a topic is much more complicated
than the subject-topic relationship of the predictable fore-
grounding clauses and more highly 'marked' in the discourse.
Givon states, 'A construction will be considered syntactically
more complex if it departs from the routine speech-processing
strategy established by the norm, that is, the neutral pattern.'

(1979:74). His analysis of the neutral unmarked pattern is the assertive declarative main clause, which excludes the adverb clause.

The semantic relations marked by adverbs in adverb clauses are often the same as those marked by conjunctive adverbs and transition expressions. That these structures are more syntactically complex may be attributed to the structural dependency which is established between the adverb clause and its main clause. This dependency is a reflection of semantic finiteness. While adverb clauses are less semantically finite than clauses joined by conjunctive adverbs, they are more finite than nonfinite adverb clauses operating in the same position. Givon states that finite clauses are more independent because the clause following the finite adverb clause is less necessary to the meaning of the finite adverb clause than the main clause following a nonfinite clause is to its meaning. Compare the examples below. In (21), although John is thought to be coreferential with he in the adverb clause, other referents are possible (Bill or another person), but in (22), John must be the agent of the nonfinite clause because of the 'same-subject' constraints which act on nonfinite clauses in order to avoid ambiguity.

(21) Before he left, John talked to Bill.

(22) Before leaving, John talked to Bill. (Givon 1983:66)

We see that the difference in syntactic complexity between the finite and nonfinite clauses on our continuum is primarily one

of finiteness, since the subject/agent of the nonfinite clause
is more restricted and the tenseless event is less independent
than in the finite clause.

While nonfinite and finite adverb clauses differ in degree
of independence, Thompson and Longacre (1978) show the similarity
of their functions in a discourse cohesion model. In this model,
they label the main clause as a 'sentence nucleus' which is sur-
rounded by 'sentence margins' which are typically filled by
adverb clauses (Thompson and Longacre 1978:56). An example of
how this works is given below:

(23)   Margin   Nucleus

                                      He A'd.

┌Having A'd,
│When he had A'd,
└After Aing,

                                      he B'd.

        (Thompson and Longacre 1978:65)

The discourse function of each of the three subordinate clauses
is the same, although two are nonfinite and one finite. Again
we see that the main difference in syntactic complexity is finite-
ness.

The next step on the scale is the relative clause construc-
tion. Not only are relative clauses structurally dependent, they
are semantically more dependent because they function to modify
arguments rather than whole propositions. In other words, rela-
tive clauses share some particular referent with the proposition

in which they are embedded. They do not serve as topic for the predication as adverb clauses do, although they may modify the topic. They also lack finiteness, not because they do not have tensed verbs, but rather because the head referent is not independent and the predicated event within the relative clause is semantically dependent for relevance on the event of the main clause. Again we refer to the Copeland and Davis (1980) description of identity marker in discourse. As we have mentioned before, a speaker/writer is responsible in the Given-New contract for letting his hearer/reader know whether or not a particular is assumed to be identifiable. One way in which this is done is by the use of definite articles. If the particular is preceded by a definite article but the speaker/writer still feels that his hearer/reader might have trouble identifying the particular, he then inserts extra information about the particular following it in the form of a relative clause. Thus we see that relative clauses are a syntactically complex way of filling in the gaps left by a possible lack of context.

Relative clauses are more common in writing than in speech, and more common among adults than among children. Keenan and Schieffelin (1976a) assert that children generally do not produce relative clauses because relative clauses require a reference to a prior event or to old information about the particular. This kind of remote identifying information is difficult for children to produce (Keenan and Schieffelin 1976a:372). Relative clauses are also rare in cultures which do not have a tradition of literacy.

The next point on our scale is that of the complement clause which functions as a noun. We will restrict our discussion to complement clauses which fill the role of subject in sentences although complement clauses may also function in other noun roles such as object. The reason for focusing on the subject complement clause is its topic/comment structure which causes it to function in the discourse in a similar fashion to the adverb structure although the clauses involved are more embedded syntactically. The structure of the the complement clause is similar to that of a relative clause, but instead of modifying a noun, the clause itself functions as a noun in subject position in the main clause. This structure is, in fact, the only overt structure in English for specifically marking topic in discourse. As we see in the example below, the structure is that of topic/comment, with the topic often consisting of an event, rather than just a particular.

(24) That he is working is good.

The purpose of the complement clause, then, is to topicalize a proposition and comment on it. This clearly points to the need for syntactic complexity in English to clarify and identify the topic in English writing. A proposition as a participant is much more difficult to identify as a referent than an object or person.

The last point given is listed to show somewhat the degree to which syntactization can take place. There is a great deal of evidence showing that prepositional phrases derive from

clauses phylogenetically. In some cases, prepositional phrases
in initial position serve the purpose of topic fronting in Eng-
lish. For example, in (25) below, 'Dwinelle Hall' is the topic
of the sentence. By including it in a prepositional phrase, it
may be fronted, thus providing a kind of topic/comment structure.

(25) In Dwinelle Hall, people are always getting lost.

(Chafe 1976:51).

In her definition of 'idea unit' which she uses to measure syn-
tactic complexity, Kroll includes all kinds of sentence initial
phrases set off by commas as well as what she calls 'reduced
clauses', absolutes, appositives, and verbals (Kroll 1977:90).
Her list also includes prepositional phrases. This supports the
notion that syntactization moves toward lexicalization.

Thus, we see that a continuum of syntactic complexity re-
flects semantic dependency between units of discourse. As we
move up the continuum in syntactic complexity, we are less able
to see the intersentential nature of the relationships expressed.
Although it is not within the scope of this paper to discuss all
aspects of this continuum, we want to focus in particular on
those intersentential relations which are realized as lexical
items. These we have identified as coordinating conjunctions,
conjunctive adverbs and transition expressions, and subordinating
conjunctions. In the next section, we will discuss the particu-
lar semantic relations which are expressed by these connectives
and the pragmatic constraints which govern their use in writing.

Lexical Cohesive Devices

Our purpose in this paper has been to show the reasons
for the errors which nonnative writers make when trying to
express relationships between ideas in writing and to suggest
possible solutions. Through our syntactic complexity contin-
uum, we see that connections in English can be realized in
many ways ranging from simple coordination to embedded phra-
sal structures. The area of particular interest to us on
this spectrum is that in which connections are overtly marked
by a lexical device. Both Van Dijk and Halliday and Hasan
call these devices 'conjunctions' and include the traditional
categories of coordinating conjunctions, conjunctive adverbs,
transition expressions, and subordinating conjunctions among
them (Van Dijk 1977a:14 and Halliday and Hasan 1976:231).

In nearly every syntactic or semantic description of
connectives examined, the writer attempts to make a list of
the logical relations marked by these lexical devices. Almost
all of the descriptions include a graph or chart in which the
conjunctive elements are separated into groups according to
some criteria. For most, these criteria are primarily based
on perceived logical relationships which are either thought
to hold between sentences or to be implied by the meanings
of the conjunctions themselves or both. The number of cate-
gories listed ranged from four (Halliday and Hasan 1976) to

thirteen (Quirk and Greenbaum 1973). The number of categories most often used is seven although not all seven are the same in each chart.

Halliday and Hasan state that there is no one correct way to divide the categories logically since any classification is only going to emphasize some different aspect of the same reality (Halliday and Hasan 1976:238). Halliday has recently restated this idea (in personal communication) saying the categorization a linguist wants to describe should depend on what he or she wants to emphasize. He went on to say that for the purposes of cohesion, he strongly feels that their four categories are the best.

Careful comparison of other categorizations to that of Halliday and Hasan (as illustrated in Table III of Appendix A) reveals that most of the different categories used by others are in fact in the chart in Cohesion in English, but some categories are considered to be subcategories of a broader category such as additive or temporal. In other words, Halliday and Hasan interpret the four main categories as including characteristics of several different relationships. A look at Table III will reveal the relationships between Halliday and Hasan's chart of categories and other analyses.

First, if Halliday and Hasan's subdivisions within each major category are considered, nearly all of the categories used by the others are included, and many more are shown which are not in the other charts. Of the four categories used in other

charts which were not on the Halliday and Hasan chart. three
(incorporation, reformulatory, restriction) involve relative
pronouns, which Halliday and Hasan do not consider to be co-
hesive since they involve intra- rather than inter-sentential
relationships.[*] The fourth, inclusive, is the colon (:), a
punctuation device rather than a lexical device.

The divisions of categories are not as clearcut as this
table makes them appear. For example, the Whitehall category
of qualification includes conjunctions from the causal and tem-
poral categories of Halliday and Hasan. The same is true of
Quirk and Greenbaum's transitional category and the additive
and adversative categories. However, there is at least one
category listed in every chart for the major headings of Halli-
day and Hasan, except for that of Arapoff, who clearly states
that she is primarily categorizing only sentence connectors
(our conjunctive adverbs). She is also dealing only with what
she calls 'logical relations' between sentences, by which means
she categorizes relations typical of deductive systems of logic.
This explains the lack of temporal conjunctions (Arapoff 1968:
243). Thus, for the purpose of describing the semantic relations
expressed by these lexical devices, our Table III reveals

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[*]We tend to disagree with Halliday and Hasan on this point,
noting that cohesion as they define it does take place within
sentences as well as between sentences. Relative pronouns do
not meet other requirements for being conjunctive, however.

that Halliday and Hasan's categorization is the most complete, and would be the most helpful in constructing a semantic description of connectives for ESL students.

Looking again at our syntactic complexity chart and at our evidence from child language acquisition, it would appear that these categories should be ordered in terms of continuity and semantic dependency. It has been generally stated that the most continuous, least complex semantic relationship is additive. This is also the first relationship acquired by children. The next most continuous and next acquired relationship is temporal, followed by causal, and lastly adversative, which, because of its contrastive 'surprise' factor, is somewhat discontinuous. Thus, to be consistent with our continua, we will consider the categories to be ranked in this order, although Halliday and Hasan do not happen to have them in this order in their chart. We may assume that they do not use any particular ordering in putting together their chart, certainly not one based on phylogenetic or ontogenetic complexity.

Next, we will consider the lexical devices individually in their categories of coordinating conjunctions, conjunctive adverbs and transition expressions, and subordinating conjunctions.

The first group is that of the coordinating conjunctions. There are only a few members of this group, which is generally thought to include and, but, or, nor, so, then, and for. Some discussions point to and as the paradigm case of a coordinating conjunction, while the others are less so. There is evidence

in some languages that the word and as a connective particle evolved from an earlier verb which meant 'to join' or 'to add' (Givon 1979:261-63). In general, that is the semantic interpretation of the word, but, as we have pointed out earlier, and is capable of marking any type of semantic relationship within our categorization.

And is not the only coordinating conjunction with this multiple function. But can also mark a variety of semantic relationships although it does not have the scope of and. Halliday and Hasan assert that but contains the additive sense of and. They explain that this is why we can say and so or and then, but not and but (Halliday and Hasan 1976:237). In the adversative sense, but can be either concessive or contrastive as shown in the following two examples respectively:

(26) It was raining, but we went out.

(27) It was not snowing, but it was raining.

(Ching 1982:2-4)

But also allows a second clause to compensate for or 'dominate' a first clause, as in (28)

(28) He is short of breath, but he has very long legs.

(Ching 1982:3)

So and then can mark any causal or temporal relationship, and for can mark any causal relationship. The only coordinating conjunctions with fairly limited scope are or and nor. Or generally marks alternation, a subdivision of additive, and nor marks negative alternation.

The semantic scope of each of these coordinating conjunctions is illustrated in Table IV in Appendix A. The specific semantic descriptions are adapted from Halliday and Hasan (1976). As we can see, the semantic scope of the coordinating conjunctions is generally quite broad, especially when compared to the semantic scope of other types of conjunctions. We shall say more about this later.

We have noted before that punctuation often reflects underlying pragmatic constraints on connectives. In written discourse, coordinating conjunctions usually serve the purpose of linking two clauses within a single orthographic sentence. The coordinating conjunction is generally preceded by a comma or has no punctuation whatsoever. Thus, it is rare for a coordinating conjunction to be in initial position in a sentence. Quirk and Greenbaum (1973) note that it is possible for and and but to link a sentence with a unit comprising several sentences but it is not common. However, in speech, utterances are often begun with coordinatin conjunctions, which may serve the pragmatic functions of holding the floor in the conversation. This type of pragmatic function is unnecessary in written discourse. In general, coordinating conjunctions do not link large blocs of discourse.

That coordinating conjunctions do not function in the same way as conjunctive adverbs or transitions expressions in written discourse has been noted. Carolyn Hartnett (1982) has studied the role of cohesive ties in written discourse. She has concluded

that there are basically two discourse functions which these
ties perform. One function she isolates is that of focusing
and holding attention, a function often performed by additive
conjunctions. The other function is what she calls manipula-
tion, which involves higher mental processes of the writer in
performing tasks such as comparison and classification. Mani-
pulation is often marked by ties which are less frequently used
and are more specific. She includes adversative conjunctions
and some time-sequencing conjunctions (such as first, next,
finally) in her list of manipulative ties. A tie of this type
requires further development. She states, 'If every sentence
in a paragraph had a different subtype of manipulative tie, the
result might contain too many undeveloped tangents ' (Hartnett
1982:211).

What we see here is a contrast between the discourse func-
tions of lexical items which are more specific in semantic
meaning to those which are less specific in semantic meaning.
It would appear that items which are more general in meaning,
such as coordinating conjunctions, will appear more often, but
serve a lesser role in the discourse. Devices such as conjunc-
tive adverbs and transition expressions, which are more complex
and specific, will be rarer, but will require greater develop-
ment in the discourse text. Studies in frequency of use and
our native intuition support such an assertion.

If conjunctions which are external (as Halliday and Hasan
define it) focus attention, rather than manipulate discourse,

then we might expect fewer manipulative types of ties in narra-
tive. Greenbaum (1969) and Tannen (1982) report that this is
the case. In each of their studies, in narrative, they found
fewer connectives of the type that manipulate argument and make
logical connections in narrative than in other types of writing.
As we mentioned before, most coordinating conjunctions are list-
ed as being either external or internal by Halliday and Hasan,
while conjunctive adverbs and transition expressions are gene-
rally listed as internal only. Since internal conjunctions mark
a connection within an argument while external conjunctions mark
a connection between external events, we see support for the
idea that conjunctive adverbs are more pragmatically constrained
than coordinating conjunctions.

We turn, now, to a discussion of conjunctive adverbs and
transition expressions, which are different from coordinating
conjunctions in terms of both frequency of use and pragmatic
constraint.

First, we see that the term conjunctive adverb has its
roots in the fact that conjunctive adverbs generally either are
or contain an item which can function as an adverb in a clause.
Quirk and Greenbaum describe a group which they call adverbials
which are constituents distinct from subject, verb, object, or
complement. There are three kinds of adverbials: adjuncts,
disjuncts, and conjuncts. Adjuncts are integrated into the main
clause to some extent as below:

(29) He _usually_ won't eat here.

Disjuncts are not integrated, but they function to evaluate what is being said in some way:

(30) <u>Generally</u>, they were pleased.

Conjuncts are not integrated either, but they differ from disjuncts in that they serve to connect what is being said to what has been said before in the discourse. In the following example, the conjunct <u>however</u> implies that something has just been said which sets up expectations that are adversative to his not wanting to leave.

(31) <u>However</u>, he doesn't want to leave.

(Quirk and Greenbaum 1973:246)

This notion of conjunct includes the traditional typical examples of conjunctive adverbs (<u>however</u>, <u>therefore</u>, <u>nevertheless</u>, <u>hence</u>, etc.) as well as transition expressions (<u>on the other hand</u>, <u>in other words</u>, etc.) and adverbs such as <u>consequently</u>, <u>previously</u>, etc. which perform this connective function. We can see that although conjunctive adverbs may look like other adverbials, their semantic function of conjunction separates them from the others.

Whitehall (1951) contrasts conjunctive adverbs with coordinating conjunctions. In speech, conjunctive adverbs carry stress. In written text, they introduce paragraphs and sentences which are in association, have freer word order, and generally are preceded by semicolons in initial clausal position (Whitehall 1951:70). Most of these characteristics support the claim that conjunctive adverbs and transition expressions connect

discourse units of longer lengths than just a sentence. Keenan and Schieffelin argue that certain conjunctive adverbs or transition expressions actually serve to reintroduce earlier discourse material after it has been dropped (Keenan and Schieffelin 1976b: 381).

In general, the semantic relations marked by conjunctive adverbs are the same as those marked by coordinating conjunctions, but each conjunctive adverb itself carries more specific semantic and pragmatic information. The claim that these connectives carry specific semantic information is supported by Arapoff, who shows that a relationship can be specified through the choice of a connective. The following examples from Arapoff show that the choice of connective changes the meaning of the connection between the two clauses.

    (32) (a) It rained. <u>Therefore</u>, the yard got flooded.

        (b) It rained. <u>Also</u>, the yard got flooded.

        (c) It rained. <u>At least</u>, the yard got flooded.

        (d) It rained. <u>For example</u>, the yard got flooded.

        (Arapoff 1968:246)

In the first pair of sentences (a) the relationship is one of simple cause and effect. In (b), the use of the word <u>also</u> implies that the relationship is additive; perhaps the writer is listing a number of unfortunate events together. In (c), the second sentence seems to be providing evidence for the truth of the first sentence, while in (d), the second sentence provides an example of what happened when it rained. We see that the

use of different connectors here signals the reader to look for
a specific type of connection in the context.

Arapoff does state that expressions like therefore and at
least have no denotations by themselves. It is only in the con-
text of connected text that they assume meaning (Arapoff 1968:
246). Munro and Gordon make similar claims about conjunctive
adverbs. They state that there is not a 'one to one connection'
between a conjunctive adverb and a given semantic relationship,
but that the intended semantic relationship between sentences
determines their distribution. Conjunctive adverbs are 'sensi-
tive to the semantic relationship between sentences. They can-
not be randomly sprinkled throughout texts without having definite
effects on the interpretation of those texts.' (Munro and Gordon
1981:9-10). Shaughnessy comments on this in light of what be-
ginning writers do with conjunctive adverbs. Some tend to see
words such as moreover as the sources, rather than the signals,
of order in the semantic/pragmatic relationship, and thus rely
too heavily on them to provide order (Shaughnessy 1977:245).

We can see that conjunctive adverbs and transition expres-
sions do not of themselves create the relationship that obtains
between discourse elements. They only mark it overtly and spe-
cify it more clearly for the reader, limiting the reader's
interpretive options. From the reader's point of view, the
presence of a conjunctive adverb or transition expression sig-
nals him to look for a relationship consistent with the lexical
marker. For instance, as Witte and Faigley put it, 'When we

encounter a conjunctive adverb such as <u>however</u>, we attempt to establish an adversative relationship between two text elements.' (Witte and Faigley 1981:192).

We mentioned before that conjunctive adverbs, like other adverbs, have the ability to move about in the sentence. Specifically, they may appear in initial, final and post-subject positions (Van Dijk 1977a:19). However, they are found with greater frequency in initial position; nearly twice as many appear initially as otherwise (Greenbaum 1969:78). Although many authors point out the semicolon as an appropriate punctuation mark preceding a conjunctive adverb in initial position, in one hundred and twenty-two instances noted by Greenbaum from actual text, one hundred and five were preceded by full-stop punctuation (period, question mark, exclamation point), and only five were preceded by semicolons. The rest were preceded by commas or no punctuation at all (Greenbaum 1969:27).

Quirk and Greenbaum comment on the general punctuation used with conjunctive adverbs by noting that not only are the conjunctive adverbs usually found in initial position, they are also separated from what follows by either a pause in speech or a comma in writing. If they are not in initial position, then they are separated from the rest of the sentence by commas on both sides (Quirk and Greenbaum 1973:249).

Van Dijk, as we have mentioned before, believes that initial positioning and end punctuation reflect the paralinguistic

features of speech (accent, pause, etc.). He points out that
this type of differentiation is not made for coordinating con-
junctions, which in speech are often phonologically assimilated
into the preceding or following morpheme. By contrast, conjunc-
tive adverbs are generally stressed in speech and carefully set
off by pauses. We might assume from this that attention or fo-
cus is being brought to the connection being marked by these
features.

The semantic relations marked by conjunctive adverbs are
also listed in Table IV. As we can see, the scope of meaning
is narrower and more limited for individual conjunctive adverbs
and transition expressions than it is for coordinating conjunc-
tions. It is interesting to note that many of the conjunctive
adverbs listed here can be associated with phrases which pre-
cede prepositional phrases or relative clauses structures actually
summarizing or renaming some idea or particular which is affected
by the semantic content of these words. Below is a sampling of
the kinds of phrasal structures we are discussing:

(33) Besides,   Besides the...

     Alternatively,   An alternative to...

     Similarly,   Similar to...

     In the same way,   In the same way that...

     Despite this,   In spite of...

     Instead,   Instead of...

     First,   The first...

An inventory of this list in Table IV would indicate that all
but a few of these conjunctive adverbs can be restated as a
phrase of this type. Among those which cannot be rephrased are
terms like therefore, however, hence, thus, otherwise, further-
more, moreover, on the other hand, by the way, nevertheless, and
on the contrary. It is the overuse of words and terms in this
group of conjunctive adverbs in particular which often charac-
terizes and gives ESL compositions their 'nonnative' flavor. We
would theorize that these are given most often as representatives
of the class of conjunctive adverbs, and ESL writers are more
familiar with these than the other conjunctive adverbs. Therefore,
they have more opportunities to misuse and overuse these parti-
cular lexical items. It is also difficult to define the exact
relationships which these particular conjunctive adverbs mark
since, unlike the other conjunctive adverbs, these have no pa-
rallel subordinate structures which correspond lexically and
can be used in explanations. In the past, teachers have given
a coordinating conjunction as the definition for a conjunctive
adverb from this group. Although the coordinating conjunction
corresponds to the same semantic category as the conjunctive ad-
verb, it does not correspond in semantic range. For example,
we say that therefore means so. So not only marks cause, but
in some situations, it marks additive and temporal relations.
Therefore does not mark these different relations; if an ESL
student used it as though it meant so, he or she would make
many misuse and overuse errors. This difference in semantic

range is true for all the conjunctive adverbs when compared to coordinating conjunctions. In addition, there is a difference in the frequency of use of coordinating conjunctions and conjunctive adverbs. This difference could also lead to errors.

For definition of conjunctive adverbs, a better direction to point students is toward the underlying semantic structure or semantic function in the discourse. This is fairly easy for those conjunctive adverbs and transition expressions which have the corresponding subordinate structures which we have already discussed, but it is less easy for our list of 'typical' conjunctive adverbs. There is historical evidence that those connnectives also derived from such underlying structures. Givon states that one would expect language to become increasingly 'syntacticized' based on our continuum of syntactic complexity, with the eventual destination being total lexicalization (Givon 1979:209). Interestingly, Thompson and Longacre state that while lexical overlap through summary and tail-head linkage is the primary cohesive factor in tying text together, conjunctions can substitute for it (Thompson and Longacre 1978:95). A teacher should construct definitions for conjunctive adverbs which reflect their function much as the subordinate constructions mirror the function of the other conjunctive adverbs.

Some see the opposite relationship from the one just described as holding. That is, that subordinate clauses derive from conjunctions (Quirk and Greenbaum 1973:315). In fact, this is probably the direction from which most ESL instructors

view subordination. The reason for this is probably tied to the increasing syntactic complexity encountered in analyzing subordinate clauses. We can see a whole series of subordinate clauses, some finite, some nonfinite which semantically mark the same relationships that conjunctive adverbs do; however they do not correspond to conjunctive adverbs in pragmatic function. Let us again return to our idea that punctuation reflects writer intention by mirroring the paralinguistic features of speech. In a subordinate clause or phrase in initial position, the emphasis is not on the relationship alone, as is true for conjunctive adverbs, but on the entire contents of the clause or phrase. This clause or phrase usually includes lexical overlap as well as conjunction. Thus, there are two types of cohesive ties, conjunctive and lexical, and neither is emphasized more than the other. See in the following examples, (34) and (35), how in (34), _after_ marks the temporal relationship to the preceding sentence and _walk_ provides lexical overlap. In (35), only _afterwards_ is cohesive to the preceding sentence.

(34) We went for a walk. _After_ our _walk_, we were hot and
     tired

(35) We went for a walk. _Afterwards_, we were hot and tired.
The punctuation reflects this emphasis. The adverb _after_ in the adverb clause is not separated from the rest of the clause the way the conjunctive adverb _afterwards_ is. The clause itself is separated only because it is in initial position, and then only with a comma. Once again, we see that different pragmatic constraints control the use of connective devices.

Included among subordinate connectives is a group of lexical devices usually called 'subordinating conjunctions'. This group is distinguished from the adverbs in other adverbial clauses because subordinating conjunctions consistently connect otherwise independent and finite clauses to a main clause, and because they give semantic information about the nature of the connection itself. This group, like the group of coordinating conjunctions, is generally considered to be small and includes <u>yet</u>, <u>only</u>, <u>if</u>, <u>though</u>, <u>although</u>, <u>even though</u>, <u>while</u>, <u>whereas</u>, <u>since</u>, <u>because</u>, <u>unless</u>, <u>after</u>, <u>before</u>, <u>when</u>, and <u>where</u>.

Table IV demonstrate the semantic relationships expressed by these subordinating conjunctions in relation to the conjunctive adverbs and coordinating conjunctions. They seem to fill very few slots in this semantic schema, but again, many adverbial constructions can be constructed which are not labeled as subordinating conjunctions but function to head adverb clauses, which correspond closely to the meanings of nearly every category listed. It is not within the scope of this paper to describe the syntax of these, but simply to mention their existence as possible alternatives to using the more highly constrained conjunctive adverbs, as we turn now to a discussion of the pedagogical implications of this functional discussion of connectives.

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CHAPTER V

PEDAGOGICAL IMPLICATIONS

Having completed our theoretical discussions of connectives, we will now focus on certain of their attributes, and implications for the teaching of English composition. By way of review, we note that connectives are part of a larger system of connection which includes many ways of expressing relationships between ideas and which ranges in syntactic complexity from simple coordination to tightly bound embedded phrases. We have observed that the connectives themselves do not create a connection. Due to the fact that semantic relationships already exist between the ideas being connected, connectives simply mark the nature of the connection overtly. Coordinating conjunctions are more semantically general than conjunctive adverbs, transition expressions, and subordinate structures. Conjunctive adverbs and transition expressions have more pragmatic constraints on their use than coordinating conjunctions and subordinate structures in that they appear to focus attention on the specific relationship and they appear to manipulate and direct the development of the discourse to a greater extent. Of the lexical devices used in connection, subordinating conjunctions mark the most complex syntactic structures.

We also noted earlier that syntactic complexity is characteristic of written language, and that in general, this syntactic

complexity (also known as 'syntactic maturity') has been recog-
nized by composition teachers and rhetoricians as a desirable
attribute of written English. As early as the sixties, having
noted the need to increase the syntactic maturity of student
writers, many rhetoricians conducted studies to determine the
relevance of grammar teaching to improvement in writing skills.
For example, Bateman and Zidonis (1966) claimed that their sta-
tistical analysis of native students' writing after the students
had studied TG grammar showed increased ability to produce well-
formed sentences of greater structural complexity (Bateman and
Zidonis 1966:39).

However, O'Hare did a study in 1971 which he feels argues
against the need for grammar study by native students. His study
revealed that it was the test tool itself, rather than the gram-
mar study which improved the students' writing. He showed this
by using the Bateman and Zidonis test method, now commonly known
as 'sentence combining', but unlike them, he gave students cues
of possible ways of combining sentences that did not require
them to know the grammatical terms for those structures. For
example, where Bateman and Zidonis had used a symbol such as
PrP to signal students to use a present participle, O'Hare used
a symbol such as ING. O'Hare's students showed as much if not
more improvement in syntactic maturity, although they had not
had the grammar study of the Bateman and Zidonis group (O'Hare
1971).

After O'Hare's report was released, sentence combining as a method for teaching composition spread rapidly. Many books, workshops, etc. were developed in response to the strong claims made about the effectiveness of sentence combining in increasing sentence length and complexity in composition skills.

Sentence combining appeared in the ESL classroom at about this time. Today, most ESL composition textbooks include some form of sentence combining exercise. Unfortunately, in the experience of this teacher, these exercises often do not achieve their intended goal of improving student writing for ESL students. Because the original idea behind sentence combining was that native students could use their native intuition to combine ideas, exercises designed in this same way fail to work for ESL students, who do not have this intuition. An example of the kind of sentence combining exercise found in advanced ESL textbooks (Johnston and Zukowski/Faust 1981) is given in Appendix B along with samples of some of the papers students wrote when doing this exercise. The sample papers are labeled by the native language of the student.

First, note that the instructions for this exercise encourage both subordination and coordination, and briefly describe when to make the distinction: coordination for parallel structures, and subordination for support ideas. Then a list of possible connectors for each type (coordinating conjunctions, conjunctive adverbs, and subordinating conjunctions) is given. A look in Appendix B at the papers submitted by students reveals

that they did not understand enough from these instructions
alone to avoid making errors of connection. Thus, a teacher
using this text would need to provide additional explanation
before assigning this exercise.

The three error types mentioned in the introduction (un-
deruse, misuse, and overuse) are among those made by the students
in this sample. The native Arabic speaker commits errors of
underuse in numbers (1) and (5). In (1), the completed, com-
bined sentence contains two occurrences of the word technology,
and a pronoun in the subject position of the second clause which
anaphorically refers to the subject of the first clause. This
provides both reference and lexical cohesion ties between the
two clauses which are now one sentence. The use of such cohe-
sive ties is for the purpose of increasing the identifiability
of particulars. The use of these types of devices signals to
the reader that the particulars should be more difficult to
identify than they really are. English allows deletion of a
subject in a second clause when the particular is the same as
the subject of the first clause. Using coordination here strikes
the reader as being too heavily weighted with identity markers.
Both the Korean and Ibo speakers used a similar structure. How-
ever, the German and Malay speakers showed greater syntactic
complexity by using structures which would be higher on the
continuum of semantic dependency. Both of their answers seem
more natural than those of the Arabic, Korean, and Ibo speakers.
In the German example, only the word technology is anaphorically

referred to by the pronoun _it_. The Malay speaker eliminated all references to particulars in the second clause by creating a prepositional phrase.

The type of underuse of syntactic complexity exhibited by the Arabic, Korean, and Ibo speakers (underuse from an English perspective) may well characterize the writing of speakers of languages which have a lower degree of literacy in their culture than an English speaking culture. Ann Johns has observed that her Arabic and Farsi students in particular seem to use coordinating conjunctions when a more complex element seems more appropriate (Johns 1980:66). Her observations are supported by those of other teachers in ESL composition classrooms of their students from cultures with less literacy.

Misuse was another error type often found in these papers. In misuse, the student failed to understand the nature of the semantic relations which existed between the sentences as they were presented in the exercise, and so used a connective element which signaled an incorrect semantic relationship. Examples of this can be found in the Korean speaker's paper in numbers (2), (3), (6), and (7); in the Arabic speaker's paper numbers (4) and (7); in the German speaker's paper numbers (2), (4), and (6); and in the Malay speaker's paper number (3). Possible reasons for these problems are of two kinds. Either the students knew the relationships being expressed but did not know a lexical device or subordinate structure to mark the relationship clearly, or they could not determine the relationship between the

sentences which was intended by the author of the original text.

Number (4) of this exercise seemed to cause problems for several of the students. It would appear that the students did not recognize the semantic relationship intended by the original author. The three sentences as they are listed below appear to be basically parallel in semantic relationship. All three sentences describe a positive aspect of the geodesic dome as a technological breakthrough for architecture.

(36) The geodesic structure is strong.

It is inexpensive.

It is easily expandable.

Three of the writers tried to mark an adversative relationship between the sentences. Two tried to mark a causal relationship. Only one, the Malay speaker, recognized the coordinate nature of the relationships and presented them in this way. It is possible for a causal or adversative relationship to hold between these sentences, but there is not enough information present in the text to make this clear. Only the original author could know what other relationships could hold between these sentences. This problem of interpreting the intended semantic relationships in such an exercise can be caused both because of lack of textual information and lack of contextual knowledge. That ESL students lack shared context with the native writers of such exercises must be considered. When students are working with their own writing, this problem of interpretation does not arise. Then the problem is clearly one

of choosing the correct lexical device to mark a desired relationship. If our goal is to teach students to improve their use of connectives in their own writing, a method which uses student writing in context to teach connectives and subordination would be preferable to exercises which require them to second guess the intentions of the original writer. We will address the issue of what type of exercises will accomplish this goal later.

The third error type we called overuse. In these exercises, it is more difficult to measure overuse since this error is one of discourse. However, some possible sources of overuse can be proposed. For one thing, we find more occurrences of conjunctive adverbs in these exercises than would be normal for the same number of sentences in a discourse paragraph. For instance, the Korean speaker used four conjunctive adverbs in the eight sentences and the Ibo speaker used three. All of the conjunctive adverbs which were used by any of these students could be found in the list of suggested connective devises in the instructions to this exercise. It is doubtful that the writers of the exercise intended for the students to use all and only their suggestions in this one exercise. However, there is evidence that given a list, students will try to use the items in the list when carrying out exercises.

This evidence was seen in another study (Leavelle 1983) in which we attempted to compare differences in the frequency with which native and nonnative speakers use conjunctive adverbs.

Students were given a variety of discourse types and asked to
fill in the blanks with conjunctions. Lists arranged by seman-
tic type were provided. Instead of showing differences, both
the native and nonnative students used about the same ratio of
conjunctive adverbs to coordinating conjunctions. That they
were trying to use as many of the conjunctions from the lists
as possible was evidenced by the fact that the students used a
much higher percentage of conjunctive adverbs than the original
writers of the discourses, which ranged from a written descrip-
tion of a date by a teenager to a scholarly selection from a
linguistic journal. In addition, native speakers of English
used such combinations as additionally consequently (as opposed
to and so) indicating a desire to use as many of the terms in
the list as possible. It is possible that the ESL writers who
completed the exercise given in Appendix B also were trying to
use all the items suggested in the instructions whether or not
they found relationships which fit those items to hold between
the sentences in the exercise.

We have stated before that punctuation is an indicator of
pragmatic constraints on the use of various connectives. As
we again see in Appendix B, the students who completed this
exercise revealed through their errors in punctuation either
a lack of understanding of the pragmatic constraints regarding
connectives or a lack of knowledge of the punctuation system.
Some used conjunctive adverbs punctuated in the same way that
coordinating conjunctions would be punctuated in the same

position. This can be seen in the Ibo speaker's paper numbers (2), (3), and (4); the German speaker's paper number (2); and the Malay speaker's paper number (8). There was other evidence of misunderstanding, such as the Arabic speaker's use of <u>and</u> after end punctuation in number (7), and the Korean speaker's use of a comma following a sentence initial subordinating conjunction.

Finally, we have seen evidence that in general, ESL writers use subordinate structures less than coordinate structures, and that they appear to have more difficulty with subordinate structures. We might argue that exposure to English or a language with a tradition of literacy lessens this problem since the Malay speaker had studied English since first grade, and the German speaker speaks a language which not only has a literate tradition itself, but is also in the same language subfamily as English. Both of the papers written by these two have more subordination and fewer connective errors overall than the papers of the others. The Korean speaker and the Ibo speaker attempted some subordination, but had errors involving the structure and placement of such structures as relative clauses. These errors can be seen in the Korean speaker's numbers (3) and (5), and the Ibo speaker's numbers (6) and (7). The Arabic speaker did not have any errors involving subordinate structures, but he attempted less subordination. Of course in determining the source of problems in use of subordination, we must also consider individual proficiency as a factor.

What these results suggest is that this type of sentence combining exercise demonstrates two problems. Either there is a lack of contextual information in exercises of this type, or students lack a knowledge of the range of lexical and grammatical structures which can mark relationships, and an awareness of the appropriateness of various structures to various discourse situations. This type of exercise by itself did not necessarily improve the students' writing.

Ching points out some of the fallacies in the underlying assumptions of the type of exercise or explanation shown in Appendix B. He states, 'We as teachers use these connectives properly because of our tacit or intuitive understanding of the semantic and syntactic system of the connectives--not because of the explicit textbook explanations which we give to students.' (Ching 1982:2). He continues by saying that teachers seem to be incapable of giving adequate explanations for the meaning of various connectives. They tend to use terms such as 'addition', 'example', 'cause', 'effect', etc. (Ching 1982:1). His observation of the limited explanations given students of the meanings of connectives can also be observed in textbooks where groups of conjunctive adverbs are labeled together as meaning 'and' or 'but'. As we mentioned before, this type of explanation is wrong in terms of focus. Rather than specifying the meaning expressed by a particular connective, this labeling tends to overgeneralize both the meaning and use of a connective which is actually more specific semantically and constrained pragmatically than the coordinating conjunctions they are equated with.

A better direction would be to move toward definitions which reflect the semantic function being carried out by individual connectives either by comparing them to semantically parallel subordinate structures (finally means 'the final idea of all those we have been discussing'), or by describing the exact logical function being carried out. For example, however can be defined to mean 'what follows is contrary to the expectations raised by what has preceded.' (Halliday and Hasan 1976:250).

When students are taught the meaning of connectives in this way (by equating them with coordinating conjunctions), the students tend to interchange coordinating conjunctions and conjunctive adverbs freely, thereby coordinating some clauses where use of a conjunctive adverb or subordinate structure would have been more appropriate.

ESL students need more explanation than do native speakers of the specific relationships that can be expressed by various connectives. They have three specific areas of need: they lack cultural knowledge which is necessary to supply the context for interpretation, they lack a knowledge of the specific kinds of logical relations expressed by the variety of connectives in English, and they lack knowledge of the pragmatic constraints that control when to use or not use explicit marking of a connection.

The lack of interiorization of literacy affects a student's ability in terms of the types of logical relationships that English can mark. As Palmer points out, languages do not naturally organize around analytically logical lines. This type of logic

is primarily found in genres such as expository and argumentative writing. Both nonnative speakers and native speakers who have had limited exposure to these genres have trouble with expressing these relationships and have to be taught. ESL writers may experience greater difficulty because of their lack of exposure to the range of syntactic complexity including subordination by which these relationships may be expressed. These students need more help with the more complex subordinate structures, many of which are preferable alternatives to both the general coordinating conjunctions or pragmatically constrained conjunctive adverbs. Again, subordination is found in a greater degree in the literate languages than in languages with an oral tradition. Unless taught to use subordination, many students will avoid it. As Ching points out, and as our discussion of semantic dependency and syntactic complexity implies, effective combining of sentences demands knowledge of strategies of reduction and deletion as well as connection (Ching 1982:12).

Another problem that ESL writers share with inexperienced native writers is the problem of 'staying with' a line of thought to its logical development, or that of properly elaborating on an idea. Shaughnessy observes that this is particularly characteristic of 'basic writers', who write using oral strategies rather than written (Shaughnessy 1977:230). Wrase, an ESL teacher, responds to this observation by noting that his lack of development and connection are also characteristic of ESL writers (Wrase 1984:6). It is characteristic of oral strategies

of communication to assume more shared knowledge by the hearer
because of rich context and immediate repair. When these stra-
tegies are transferred to writing, students may assume too much
about their reader's knowledge and not provide enough context.
Thus, there is a lack of development. If a student writer in-
troduces a point in his or her writing with a manipulative tie
such as a conjunctive adverb, and then fails to develop it, the
feeling of the reader may be that the connective has been used
improperly when the real problem is a lack of development.

We can see that sentence combining by itself is not as ef-
fective a tool for teaching ESL writers as it is for teaching the
native writers for whom it is designed. Sentence combining
relies heavily on the intuition which native speakers possess
about combining strategies. ESL writers require clear explan-
ations of semantic relations and their syntactic realizations.
Sentence combining exercises do not always make clear the in-
tended relationships between sentences (many of which depend
on shared cultural knowledge and must be inferred). Sentence
combining also fails to provide students with practice in the
development of ideas. As Wrase points out, 'Many current books
that contain sentence combining exercises using coordination
and subordination never take the important step of applying the
exercises to students' own writing ' (Wrase 1984:36).

Still, there is a place for carefully designed exercises
in sentence combining in the teaching of ESL composition. Posner
(1981) recommends sentence combining as a possible method for

teaching beginning ESL students the rudiments of writing. At the beginning level, the structures used to combine would be highly controlled; having the basic structures and vocabulary provided in the kernel sentences allows both the teacher and the students to concentrate on the particular grammatical form being used in the combination (Posner 1981:1).

Annette Claycomb, in a talk on teaching cohesion, proposed sentence combining as one of several activities, including sentence ordering and strip stories, for teaching cohesive devices, but pointed out that the method of combining should be clearly given for each group of sentences (Claycomb 1984).

Over the last ten years, Judith Wrase has developed a series of activities to teach connection to ESL writers. Her methods include sentence combining as only one of several activities. Generally, she begins her program by giving her students the three paragraphs found in Appendix C and asking them to choose the one which reads the best. Usually, the students agree that the third paragraph, which is much more syntactically complex than the other two, reads the best (Wrase 1984).

She follows this with a series of activities which teach students how to embed words (such as adjectives) in sentences, to embed that clauses, to use participles, to subordinate with subordinating conjunctions, and to use sentence connectives and transitions. Teaching these strategies together helps students to see how the different ways of bringing ideas together relate semantically but differ pragmatically. It also provides stu-

When Wrase teaches the use of specific connecting elements, she uses two different 'fill in the blank' activities. In one activity, the student chooses an appropriate subordinating word or words to put in a blank, thereby subordinating one clause to another. Students are then asked to identify the main clause.

(37) _____ he played basketball, he felt good.

(38) They stayed home _____ it was snowing.

    (Wrase 1984:7)

In another activity, the student is given the subordinate clause, but must fill in the main clause or he is given a subordinating conjunction and main clause and is asked to fill in the rest of the subordinate clause.

(39) Because we are from Vietnam, _____.

(40) After _____, Sue and I talked about money.

    (Wrase 1984:7)

This activity is similar to one for teaching the nuances of meaning of various conjunctive adverbs suggested by Gaye Childress of the North Texas State University Intensive English Institute (personal communication). In this activity, students are given one sentence and a conjunctive adverb or coordinating conjunction. They are asked to finish the second sentence, and then discuss their reasons for completing the sentence in the way they did.

(41) John ate lunch. Nevertheless, _____.

    John ate lunch. In addition, _____.

    John ate lunch. However, _____.

When Wrase does move into sentence combining activities
after many activities of the sort just mentioned, she begins
with short, choppy sentences. She points out that in all these
activities, punctuation must be emphasized. Students are asked
to develop punctuation rules inductively as they see various
structures used in context. After using sentence combining ex-
ercises such as the one below:

(42) I bought a vacuum cleaner.

It was new.

I bought it at a store.

(Wrase 1984:7)

Wrase uses equally short and choppy sentence combining, but in
a larger discourse context. Eventually, she moves to combining
in context sentences of greater length and complexity similar
to the types of sentences students would find in their own writ-
ing.

(43) Last week the Morrells had a visitor at their house.

They didn't know him very well.

(Wrase 1984:7)

The results of the sentence combining exercises are publicly
(but anonymously) posted, not only to show the variety of possi-
ble combinations, but to give opportunities for free discussion
among the students.

At this point, students are ready to begin applying these
activities to their own writing. According to Wrase, this is
the function of revision, an activity often avoided in the

composition classroom. She states that it is teacher emphasis
on content rather than form which causes students to revise and
refine connections between ideas (Wrase 1984:6-8). Wrase is not
alone in her opinion that revision is the most direct applica-
tion of sentence combining. Mellon, for instance, also states
that it is the best use of sentence combining (Mellon 1981).

Carolyn Boiarsky lists eleven reasons for revising. These
include altering form, organizing information, creating tran-
sitions, deleting information, expanding information, emphasizing
information, subordinating information, creating immediacy, im-
proving language usage, and cleaning up mechanics. Although
some of her reasons seem to overlap each other, her point that
more reasons for revising involve content than mechanics is well
taken. According to Boiarsky, most students primarily concern
themselves with the last three activities, all of which deal
with mechanics. She strongly feels that the reason students
do this is because they believe that teachers are primarily con-
cerned with mechanics. She believes that the emphasis in teach-
ing composition has definitely not been on revision of ideas and
cohesion, a lack which has kept students from reaching their
potential as writers (Boiarsky 1981:7).

For ESL writers, revision as a refining process for teach-
ing connectives is especially good because, unlike with sentence
combining exercises, the students themselves know what the in-
tended relationships between ideas are. They also can be en-
couraged to develop, expand, and support undeveloped tangents.

Johns feels that teachers can help students by correcting some papers only for discourse type errors. This will encourage students to concentrate on revising for content as well as for mechanics (Johns 1980).

Another method which is suggested for helping advanced composition students to improve their use of connectives in writing is called reformulation. In this method, native students are asked to rewrite nonnative speakers' papers, trying to keep the basic idea units intact rather than writing a completely different paper. The nonnative writer then compares the two papers to see what changes the native speaker has made. From this, he or she may gather insight into the kinds of structures which are preferred by native speakers. Problems with this method include the possibility of getting a native writer who is actually weaker than the nonnative writer in ability, and the amount of time involved (Cohen 1983:4).

Another method is to have students write three different drafts of one introduction to a paper. Then the student compares his own variations and chooses the best structures in each (Boiarsky 1981:10).

All of these activities can be very good in improving writing proficiency. However, it is clear that the best writers will be those who have been made aware of the differences in writing and speaking throughout their ESL study, and who have been taught connectives as part of a larger system of syntactic complexity and semantic cohesion.

In addition to classroom activities which a teacher might implement, a good textbook can aid in teaching connectives. Of course, in choosing a textbook for a course in ESL composition, many factors have to be considered in addition ot how connectives are taught. It is important, however, to consider carefully the presentation of connectives since this often reveals a lot about the philosophy of the textbook writers regarding meaning and context in discourse, and cohesive ties as elements of coherence and unity.

A composition texbook in ESL should, of course, teach connectives as strategies of cohesion in discourse. In the specific treatment of connectives, the approach should deal with coordinating conjunctions and conjunctive adverbs as being different from each other semantically and pragmatically. A good approach would be to equate subordinate structures and conjunctive adverbs semantically and use dependency and punctuation to differentiate them as separate kinds of pragmatic structures. The specific activities should avoid the type of 'fill in the blank' activities which fail to require the student to come to terms with the nuances of meaning of various conjunctions. Sentence combining itself is not a bad activity, but it should give students the necessary context and explanations for them to be successful in establishing clear connections through coordination and subordination. The best texts will be those which bridge the gap between the activities in the book and the student's own writing. Activities which encourage revision of writing for content as

well as mechanics aid in this. Finally, the text should intro-
duce a large variety of connectives and relate these semantically
to the rhetoric in which they will most likely be used. For ex-
ample temporal relation connectives can be introduced in a rheto-
ric section on narrative or process.

Most composition texts in ESL today do recognize the need
for including units or some information on connectives and tran-
sitions in writing. Not all present these in the same manner.
One popular text, Johnston and Faust's Keys to Composition (1981),
includes a unit under their section labeled 'Style' called 'Tran-
sitional Devices'. Under 'Mechanics' there are sections for
subordination using adjective clauses, noun clauses, and adverb-
ial clauses; and there is also a section on 'Sentence Joining
Problems'.

There are, however, some problems with this text. Although
they include sentence combining exercises in every section of
their 'Rhetoric' section, those exercises are all of the type
described earlier in this chapter and found in Appendix B. The
basic philosophy they exhibit in their section 'Transitional De-
vices' is that transitions make writing smoother by 'organizing
it.' They note that writers use more transitions than speakers,
but do not specify particular types. The transition words and
expressions, including coordinating conjunctions, conjunctive
adverbs, transition expressions, and subordinating conjunctions
are arranged in seven categories labeled agreement ('and');
opposition and limitation ('but'); cause, effect, purpose ('for'

when it means 'because'); condition and qualification (qualifiers); support (examples); time; and summarizing. The activities following each of these include sentence combining, 'fill in the blank' in clauses and paragraphs, and ordering. In this section on transitional devices, little distinction is made among the types of punctuation required for the different kinds of connectives. No semantic distinction is made between coordinating conjunctions and conjunctive adverbs, which are equated semantically. Overall, this text is an improvement over what has been on the market in the past in terms of teaching cohesion in discourse, but in this writer's opinion, it leaves much to be desired.

Another text, Refining Composition Skills by Regina Smalley and Mary Ruetten Hank (1982), has an ongoing system throughout the book by which coherence is taught in terms of transition expressions and subordination. These are semantically related to the various rhetorical chapters. For example, under narrative, the section on coherence reviews adverbial clauses of time; under description, adjective clauses; under comparison and contrast, transitions for comparison and contrast; and so on. Each group includes several different exercises, usually involving sentence combining, 'fill in the blank' in sentences or paragraphs, and reduction of coordinate structures to more syntactically complex structures. In the final chapter is a section called 'Coherence Review,' which lists ways of producing coherence in a text. The list includes repetition of key words, synonyms and pronouns; coordinating conjunctions and correlative

conjunctions; subordinate clauses, and transitional words and phrases. In addition, this section details the various subordinate clauses and classifies transition words and phrases in categories labeled chronological order, example, addition, conclusion, and comparison/contrast.

In general, this book seems to deal very globally with the concept of connection as one of many cohesive devices and treats carefully the various semantic nuances marked by conjunctions. There are, however, some difficulties with this text. For one thing, although the distinctions between the various types of conjunctions are made, and the type of punctuation for each is given, it is in the end the responsibility of the teacher to make sure that students know the differences between structures like <u>in contrast to</u> and <u>in contrast</u>, and that the students can use and punctuate these correctly. Not all the exercises make this clear.

There is another problem with the exercises which can be a pitfall for the teacher who is not aware. Many of the exercises require little or no thought on the part of the student. These exercises tend to be somewhat mechanical. Because of the ease of grading these types of exercises as compared to grading exercises which require thought and possibly class discussion, many teachers assign only the exercises of the mechanical type. Experience again shows that there is a gap between mechanical manipulation of syntactic structures and application to student

writing. In order to help the student see the application to his own writing, teachers need to make an effort to use and discuss the more difficult exercises and also to add revision type activities which relate to each section. Overall, however, this book presents what appear to be nice features for teaching cohesion through connection.

In addition to the above popular texts, the author looked at five other newly released texts for advanced composition as representative of what is on the current market. It is interesting to note that, in general, these tend more toward viewing connectives as part of a larger system of cohesion and as functions of revision rather than simply first draft composition.

Lea Lane's book, <u>Steps</u> <u>to</u> <u>Better</u> <u>Writing</u>: <u>A</u> <u>Guide</u> <u>to</u> <u>the</u> <u>Process</u> (1983), lists connective words and expressions under a section called 'Revise.' In this section she states, 'Use transitional words between sentences (and between paragraphs) to show the connections and relationships between them ' (Lane 1983:91). Her list of connectives does not include coordinating conjunctions but does include some subordinating conjunctions. The conjunctive adverbs and subordinating conjunctions are not differentiated in terms of function. In this same section, she encourages the use of demonstrative pronouns, other anaphora pronouns, repeated words, phrases, or synonyms, and transitional paragraphs to increase unity in the revision process (:92). In general, she sees connection as part of a larger

system, but her explanations are weak in their treatment of semantics and seem aimed primarily at native speakers.

In their book, Connections: A Rhetoric/Short Prose Reader, Daniel Brown and Bill Burnette use diagrams to show how lexical repetition and substitution in the topic sentences from the thesis statement increases the cohesion in an essay (:78-9). They list various paragraph transitions of the type that reinforce cohesion. These include repetition of words and concepts, words that signal sequence, such as second or third, words that point back, such as this or all of the above, words that show logical relationships, such as however, and parallel opening structures, such as In normal times ... In bad times ... Examples of each of these were demonstrated between paragraphs in the context of a written discourse (:80). They also deal specifically with connectives in a separate section (:31-8). They classify connectives as being of four types: similarities/ differences, cause and effect, logical connections, and generalizations. Their demonstration of cohesion in larger discouse structures is excellent, but they do not deal with the semantics of individual connectives.

Judith Ann Johnson's Writing Strategies for ESL Students (1983), a book which, because of its ESL emphasis, tends to have a more detailed description of the syntactic structures involved in connection, does not, however, deal with the semantics of connectives at all. The book is based on a primarily structural

approach. Transition expressions are described as those intro-
duced to show 'proper relationships between rhetorics.' For
example, <u>before</u> and <u>after</u> would be used to connect elements
which are chronological (:96). <u>And</u> is described as a word used
to connect elements which are 'functionally identical' (:61).
Adverbial clauses modify verbs, answering questions of when,
why, or how 'it' is done. Adverbial clauses are dependent
because they begin with a subordinating conjunction (:65). Those
elements which modify nouns include restrictive and nonrestric-
tive relative clauses, introductory adjectival and participial
phrases, and appositives. The exercises offered here are pri-
marily two-sentence combining exercises (:68-71). This book
takes a very traditional approach to connective structures in
English. For these reasons, the writer would not recommend it
for the teaching of connectives.

    <u>Contemporary</u> <u>Perspectives</u>: <u>An</u> <u>Advanced</u> <u>Reader/Rhetoric</u> <u>in</u>
<u>English</u> (1984) by Robert Saitz, Maureen Dezell, and Francine
Steiglitz contains a variety of activities for teaching connec-
tives. Instructions for activities include emphasis on students'
being careful of their punctuation and being prepared to defend
their answers. Activities include 'fill in the blank', sentence
combining using a list of conjunctive adverbs and subordinating
conjunctions, and combining sentences into paragraphs using
transition expressions. In a separate section, the transitions
are listed along with a particularly good sample of the kinds
of functional descriptions of the meanings of connectives which

we are advocating. Below is a list of the descriptions which
they give:

> to indicate that what follows is similar to what precedes

> to indicate a contrast

> to indicate an example or illustration

> to indicate a relationship in time

> to indicate that what follows is a result of what precedes

> to indicate that what follows is additional information

> to indicate that what follows is to be expected

> to indicate that what follows is a variation of what precedes

> to indicate that what follows intensifies what precedes

> to indicate a summary or conclusion

> to indicate sequences

> (:245-47).

They also encourage other forms of cohesion, such as repetition,
synonyms, pronouns, and demonstratives. The explanations of
the semantic function of various connectives are better than
those in most of the books designed primarily for native or
nonnative students either one. The exercises are fairly stan-
dard and would require supplementary activities to demonstrate
the application to the students' own writing.

Finally, we examined A Practical Guide for Advanced Writers
of English as a Second Language (1984) by Paul Munsell and Mar-
tha Clough. Like the other ESL texts, this has 'fill in the
blank' from a list exercises and sentence combining activities.
In addition, throughout the book, they use an editing activity
which consists of student written essays marked as though by

a teacher. The students are to make corrections and rewrite these paragraphs or essays. Not only are the essays marked for various mechanical errors, but they are also marked for content. Students are told to combine ideas, add transitions, and give examples. This type of activity seems particularly useful for providing direct transition to the revision of the student's own writing. The book also contains an appendix on transition expressions (:297-9). The point is made here that transition expressions are not used in every sentence but are important for providing links between ideas. Each transition expression is presented in the context of a correctly punctuated sentence under the general headings of Chronology/Process, Comparison/Contrast, and Cause and Effect. In each group, special emphasis is given to expressions which are commonly misused. For example, the cause and effect section contrasts expressions which introduce effect, such as <u>as a result</u>, <u>consequently</u>, and <u>therefore</u> with expressions which introduce a cause, such as <u>because</u>, <u>since</u> or <u>as</u>. These explanations provide students with some opportunities to compare and contrast nuances of semantic meaning of various transition expressions. The editing activities provide a good link between sentence combining and student writing. Altogether, this was one of the better texts examined for teaching connectives in our opinion.

In conclusion, after reviewing the treatment of connectives historically, we have seen that the traditional formal analysis

has failed to describe connectives in an adequate manner, especially for application to composition teaching. We have seen that the more recent functional grammars have done a better job of describing the semantic and pragmatic aspects of connectives. In particular, they show that connectives are part of a larger system of connection involving semantic dependencies realized in a variety of syntactic structures. They also have revealed some of the differences between spoken and written language, differences which include the variety and frequency of connective use. Lastly, we see that the various connectives function differently in discourse and have different ranges of semantic meaning.

Methods of teaching composition to ESL students need to reflect this functional analysis. Teachers, like linguists, need to look beyond the boundaries of the sentence for explanations of connective use. Connectives should be taught as part of a total system which includes different levels of syntactic complexity. Within this system, subordination can be described in its connective function and encouraged as a means to greater syntactic maturity

A teaching method such as that used by Judith Wrase would be particularly helpful in that it provides an integrated system in which ideas are introduced gradually and with clear explanations. An emphasis on punctuation as it relates to pragmatic differences among the various connectives is important in helping students use these correctly. In addition,

the semantic differences between coordinating conjunctions and other connectives should be known and explained. Definitions should reflect not only the meaning, but the discourse function of individual connectives.

Finally, a teacher should use methods which help the student apply their knowledge of connectives to writing. The best possible method for this is probably revision of student writing for content and coherence as well as sentence mechanics. The purpose of connectives, as of all the components of language, is to communicate successfully the thoughts, intentions, and social messages of the writer/speaker to the reader/hearer. Nystrand (1982) states, 'The phenomenon of meaning is, in short, the mind's transformation of particulars into a coherent organized whole.' The creation of meaning is a 'eureka' type of experience. This is what the writer is trying to permit the reader to achieve (Nystrand 1982:20). For those of us who teach ESL students, the goal is to allow them to create a whole and meaningful picture for their readers out of the bits and pieces of the English language. A better knowledge of connectives will contribute to their achieving this.

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APPENDIX A

TABLE I

TYPES OF IDENTIFIABILITY[*]

Types	Domain	Particular
Novel	Non-Identifiable Non-Conscious	Non-Identifiable Non-Conscious
New	Identifiable Non-Conscious	Identifiable Non-Conscious
Computable	Identifiable (semantic memory) Non-Conscious	Identifiable (semantic memory) Non-Conscious
Recoverable	Identifiable (episodic memory) Non-Conscious	Identifiable (episodic memory) Non-Conscious
Some	Identifiable Conscious	Non-Identifiable Non-Conscious
Given	Identifiable Conscious	Identifiable Conscious

[*]Source: Copeland and Davis 1980:128.

TABLE II

SEMANTIC DEPENDENCY CONTINUUM

Foregrounding	Backgrounding
Most continuous	Most discontinuous
Identifiability in immediate context	Identifiability in syntactic structure
Most finite	Least finite

SYNTACTIC COMPLEXITY CONTINUUM

Most coordinate   Most subordinate

Simple coordination

Main clause adjacency

Main clauses joined by conjunctive adverbs and transition expressions

Subordinate finite adverb clause joined to main clause

Nonfinite adverb clause joined to main clause

Finite relative clause modifying noun

Complement clause functioning as subject

Prepositional phrase

TABLE III

COMPARISON OF SEMANTIC CATEGORIZATIONS

	Sources		
	Halliday Hasan	Whitehall	Quirk Greenbaum
Additive	Additive	Addition	Additive
	Simple		
	Complex		Reinforcing
	Alternative	Alternation	Replacive
	Apposition		Equative
	Comparison	Comparison	Transitional
Temporal	Temporal	Qualification	
	Simple		Enumerative
	Conclusive		Summative
	Complex		Temporal-transition
	Internal		
	'Here and now'		
	Summary		
Causal	Causal	Illative	Inferential
	General		
	Specific		Result
	Reversed		
	Conditional		
	Respective	Qualification	
Adversative	Adversative		Transitional
	Contrastive	Contrast	Antithetic
	Correction		Concessive
	Dismissal		
Other		Incorporation	Reformulatory

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TABLE III--Continued

Sources				
Winterowd Larsen	Hartnett	Arapoff	Zandervoort	Dijk
Coordinate	Sequencing	+Additive -Additive	Manner	Conjunction Manner Disjunction
Alternative				
		+Exemplifying		
		+Comparative	Comparison	
Conclusive Sequential	Time-sequencing		Time	Time
			Place	Place
				Finality
Causative	Inferential	+Inferential	Cause Reason Purpose Condition	Causaity Condition
		-Exemplifying	Result	
Observative	Comparison Contrast	+Intensifying -Comparative -Inferential -Intensifying	Concessive Contrast	Concessive Contrast Contrastive-assertion
			Restriction	

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TABLE IV

DEFINITIONS AND SEMANTIC SCOPE

OF LEXICAL DEVICES

Definitions	Semantic Scope		
	Simple		Complex/Emphatic
	Coordinating conjunctions	Subordinating conjunctions	Conjunctive adverbs Transition expressions
Additive 'there is something more to be said'			also, besides, in addition, further-more, moreover
the above + not	or	nor	neither, either
'another possible opinion, explanation in place of the one just given'	or		alternatively
'a point is being reinforced or a new one being added to the same effect'	and / but		likewise, similarly in the same way, in this way
'a point is being reinforced or a new one being added to a different effect'			on the other hand, by contrast
'the following is an example of the last point'			for instance, for example, thus
'another way to say the same thing is..'			I mean, in other words, that is
'the following is related but not exactly on the same point-an afterthought'			by the way, incidentally

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TABLE IV--<u>Continued</u>

Definitions	Semantic scope		
	Simple		Complex/Emphatic
	Coordinating conjunctions	Subordinating conjunctions	Conjunctive adverbs Transitions
Temporal			
'it follows in time'		after	afterwards, subsequently
'then immediately'			at once, thereupon, on which
'then, after an interval'	and so then	after	soon, presently later, formerly
'then, repetition'			next time, on another occasion
'then, specific time interval'			this time, on another occasion
'simultaneous'		when, while, where	at the same time, simultaneously
'previous'		before	earlier, previously
'end of process or series'			finally, at last, in the end
'sequential'			first...then, first...next, first...second,
'here and now'			up to now, hitherto, here
'to culminate'			in short, briefly, to sum up

TABLE IV--<u>Continued</u>

Definitions	Semantic Scope		
	Simple		Complex/Emphatic
	Coordinating conjunctions	Subordinating conjunctions	Conjunctive adverbs Transitions
Causal 'because..., so...'		since	therefore, hence consequently
'as a result of this'			as a result, in in consequence
'for this reason'			for this reason, on account of this
'for this purpose'	so	for then	for this purpose, with this in mind, with this intention
reversed order of causal	and	for, because	this being the case, in that case
'if..., then...'		if	under those circumstances
'if not..., then...'		unless	otherwise
'with respect to'			in this respect, with regard to this
Adversative 'contrary to expectation'		yet, although even though	
'and contrary to expectation'			however, nevertheless, despite this
'to be set against'	but	while, whereas	however, on the other hand, at the same time
'not...but...'			instead, rather, on the contrary, at least
'no matter the circumstances, still'			in any case, anyhow, at any rate, whichever

APPENDIX B

SENTENCE RHETORIC FOR EXAMPLE SUPPORT[*]

Instructions: Combine the sentences in each group below by making parallel structures into compound and subordinating support ideas to the important focus of each set. Use coordinating conjunctions (such as and, but, or) conjunctive adverbs (such as therefore, furthermore, however), subordinating conjunctions (such as when, even though, that), and prepositions.

(1) Modern architecture makes use of technology.

It uses technology in certain ways.

(2) Air-conditioning systems make glass skyscrapers possible.

Elevators make tall skyscrapers possible.

(3) The geodesic dome is another example.

It has perfect weight distribution.

It enables enormous spatial areas to be built.

(4) The geodesic structure is strong.

It is inexpensive.

It is easily expandable.

(5) There is one future application of technology.

It is revolutionary.

(6) It works under the ocean.

A weak electric current is established through a wire mesh.

The minerals in sea water collect on the wire.

(7) The minerals become a solid mass.

They have the strength of concrete.

It takes six to eight weeks.

(8) These sea-made formations may be useful.

Some day people will be able to use them to live in.

_____

[*]Source: Johnston and Zukowski/Faust 1981. 47-48.

Arabic[*]

(1) Modern architecture makes use of technology, and It uses technology in certain ways.

(2) Air-condiationing systems make glass skyscrapers possible, and elevators make tall skyscrapers possible.

(3) geodesic dom is another examble. Because it has perfect weight distribution, it enable enormous spatial areas to be built.

(4) The geodesic structure is very strong, and it is inexpensive even thoug It is easily expandable.

(5) There is one future application of technology and it is revolutionary.

(6) It works under the ocean-where a weak electric current is established through a wire mesh, the minerals in sea water collect on the wire.

(7) When the minerals become a solid mass, they have the strength of concrete. and it takes six to eight weeks to do so.

(8) These sea-made formations might be useful so that, someday people will be able to use them to live in.

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[*]All errors of punctuation, capitalization, spelling, and content by these nonnative writers have been carefully reproduced in these sample pages.

Korean

(1) Modern architecture makes use of technology, and it uses
     technology in certain ways.

(2) Air-conditioning systems make glass skyscrapers possible,
     or elevators make tall skyscrapers possible.

(3) The geodesic dome is another example that it has perfect
     weight distribution. Furthermore, it enables enormous
     spatial areas to be built.

(4) Even though, the geodesic structure is strong, it is in-
     expensive, and it is easily expandable.

(5) There is one future application of technology that it is
     revolutionary.

(6) It works under the ocean that a weak eletric current is
     established through a wire mesh. However, the minerals
     in sea water collect on the wire.

(7) When the minerals become a solid mass, they have the
     strength of concrete. Therefore, it takes six to eight
     weeks.

(8) These sea-made formations might be useful. Therefore,
     someday people will be able to use them to live in.

Ibo

(1) Modern architecture makes use of technology and it uses
    technology in certain ways.

(2) Elevators make tall skyscrapers possible, futhermore,
    air-conditioning systems make glass skyscrapers possible.

(3) The geodesic dome has perfect weight distribution and
    enables enormous spatial areas to be built, therefore is
    is another example.

(4) The geodesic structure is strong but easily expandable
    therefore it is inexpensive.

(5) There is one future application of technology that is
    revolutionary.

(6) It works under the ocean when a weak electric current is
    established through a wire mesh then the minerals in sea
    water collect on the wire.

(7) The minerals have the strenght of concret when they become
    solid mass even though it takes six to eight weeks.

(8) These sea-made formations might be useful and someday people
    will be able to use them to live in.

German

(1) Modern architecture makes use of technology by using it
in certain ways.

(2) Air-conditioning systems make glass skyscrapers possible,
however elevators make tall skyscrapers possible.

(3) The geodesic dome is another example. Because is has per-
fect weight distribution, it enables enormous spatial areas
to be built.

(4) Because the geodesic dome is strong it is inexpensive and
is easily expandable.

(5) There is one future application of technology which is
revolutionary.

(6) Even though it works under the ocean, a weak electric
current which is established through a wire mesh collects
the minerals of the sea water on the wire.

(7) The minerals become a solid mass after six or eight weeks
so that they have the strength of concrete.

(8) Furthermore, these sea-made formations might be useful
so that one day people will be able to use them to live in.

Malay

(1) Modern architecture make use of technology in certain ways.

(2) Air-conditioning systems and elevators make glass and tall skyscrapers possible.

(3) The geodesic dome is another example that has perfect weight distribution and enables enormous spatial areas to be built.

(4) The geodesic structure is strong, inexpensive and easily expandable.

(5) There is one future application of technology which is revolutionary.

(6) A weak electric current which works under the ocean is established through a wire mesh that collects the minerals in sea water.

(7) It takes six to eight weeks for the mineral to become a solid mass that have the strength of concrete.

(8) Some day people will be able to use the sea-made formation to live in therefore they might be useful.

APPENDIX C

SAMPLE PARAGRAPHS[*]

Instructions: Read the following three paragraphs. Which one do you prefer? What is different about each paragraph?

(1) Once there were many carousels in the United States. (2) Hundreds of towns and cities had them. (3) They delighted children. (4) Now there are fewer than 100 left. (5) The carousels are old and costly. (6) So amusement parks have been replacing them. (7) They use modern rides instead. (8) These rides are made of plastic and aluminum. (9) That makes them peppier and easier to maintain. (10) Meanwhile, the carousels are chopped up. (11) Their horses are turned into bar stools. (12) Their heads are cut from their bodies. (13) The carved wooden animals are sold to antique dealers.

(1) Once there were many carousels in the United States, and (2) hundreds of towns and cities had them. (3) They delighted children, but (4) now there are fewer than 100 left, and (5) they are old and costly, and so (6) amusement parks have been replacing them with (7) modern rides. (8) These rides are made of plastic and aluminum, and (9) that makes them peppier and easier to maintain, but meanwhile (10) the carousels are chopped up and (11) their horses are turned into bar stools and (12) their heads are cut from their bodies, and (13) the carved wooden animals are sold to antique dealers.

Although (3) they were once a children's delight in (2)
hundreds of towns and cities, carousels (1) in the United States
(4) now number fewer than 100. (6) Amusement parks have been
replacing these (5) costly old merry-go-rounds with (7) modern
(8) plastic and aluminum rides that (9) are both peppier and
easier to maintain. (10) The carousels, meanwhile, are chopped
up, (11) their horses turned into bar stools, (12) heads cut
from bodies, and (13) carved wooden animals sold to antique
dealers.

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*Source: Wrase 1984: 6.

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