LINKING ADVERBIALS IN FIRST, SECOND AND FOREIGN LANGUAGE ENGLISH STUDENT WRITING CORPORA

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Every individual is at once the beneficiary and the victim of the linguistic tradition into which he has been born - the beneficiary inasmuch as language gives access to the accumulated records of other people's experience, the victim in so far as it confirms him in the belief that reduced awareness is the only awareness and as it bedevils his sense of reality, so that he is all too apt to take his concepts for data, his words for actual things.

- Aldous Huxley -

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ABSTRACT

In the South African secondary and tertiary education system writing is a very important part of the curriculum. Students are expected to master basic writing skills in order to learn how to write longer argumentative essays during their tertiary education. Previous research has shown that tertiary learners, especially Black South African English learners, experience problems in writing well-structured, coherent argumentative essays. Previous research also identifies a number of distinct BSAE grammatical features that could have a detrimental effect on the structure, coherence and grammatical correctness of argumentative student writing. This study investigates one of those features, linking adverbials, and the effect it has on the coherence and cohesion of student argumentative writing in ENL, ESL and EFL student writing corpora.

Linking adverbials play a fundamental role in the structuring of a logical argument. Used incorrectly, linking adverbials can confuse the reader of a text and mar the cohesion and coherence of a text. This is a field of study that hasn't been exhaustively investigated in South African or international academic communities. This makes this study all the more important, as it sheds light on the issue of linking adverbial usage in studente writing and the effect it has on cohesion and coherence. Although a few studies have been done in this field, there is no evidence that explains the problem of linking adverbials, or a study that has fully investigated the link between linking adverbials, cohesion and

coherence. The research done in this study, at least in part, is a beginning to fill this gap.

Corpus linguistics methodology forms the basis of the study. This is a linguistic methodology founded on the use of electronic collections of naturally occurring texts or corpora. This study centres on learner corpora. There are two ways of approaching corpora for analysis. One can either take a corpus- based or a corpus-driven approach. In this study a corpus-based approach will be taken, as this method can accurately supply information as to which grammatical structures are found and to what extent they are used. The corpus-based approach entails that one formulates a problem and hypotheses about the problem, and then uses the corpora in order to prove the hypotheses true or false.

The main sources of data for this study will be the TLEC (Tswana Learner English Corpus), the Locness Corpus and the Dutch student writing component of ICLE (The International Corpus of Learner English). Each of these corpora consist of argumentative student essays written in English. As machine-readable corpora will be used as the main sources of information in this study, it follows that corpus linguistic data analysis methods will be employed in this study. By using the linking adverbial categories stipulated by Halliday and Matthiesen (2004) as well as Biber *et al.* (2002a), corpus samples are tagged and analysed using correspondence analysis.

A basic theoretical framework, providing an outline of grammatical concepts, defining various concepts and terms used in the study as well as an interpretative framework which will aid in understanding the deeper underlying issues at the root of the study, is used. The choice of the term 'linking adverbials' and cohesion and coherence is discussed, as well as the link between these concepts. This theoretical framework is used later in the study for the annotation of the data and the data analysis.

The numerical data presented in this study shows that the TLEC differs a great deal from the ENL and EFL corpus. One would expect the foreign language English corpus to differ the most, as it is generally expected that foreign language English students are less proficient in English than second language speakers. However, the data presented paints a different picture.

The findings of this study are that ENL, ESL and EFL students have different ways of using linking adverbials, showing a surprising tendency that EFL student academic writing adheres more closely to the ENL standard than ESL student academic writing does. Possible explanations involve Williams's (1987) issues of economy and hyperclarity, Meshtrie's undeletion hypothesis (2003), Van Rooy's (2006) statement that Outer Circle (or New) varieties of English develop their own norms, while expanding circle (or EFL varieties) of English stay closer to the inner circle norm, and language acquisition and tranfer-related issues.

All of these may be viable explanations as to why the ESL data are non-standard, and why the data in the ESL corpus differs from that in the ENL corpus. This study also emphasises the finding that BSAE students are not fully literate in academic English and that this is an issue that the educational system needs to address. This study further shows that certain linking adverbial semantic categories are overused by some student communities while others are underused. This study shows that this is a field worthy of concern and has proven that cohesion and coherence is influenced by the misuse of linking adverbials.

OPSOMMING

Skryfvaardighede speel 'n baie belangrike rol in die Suid-Afrikaanse sekondêre en tersiêre kurrikulum. Van leerders word verwag om basiese skryfvaardighede te bemeester tydens hul sekondêre opleiding sodat hulle langer argumentatiewe essays kan skryf en bemeester tydens hul tersiêre opleiding. Vorige navorsing het bewys dat leerders op tersiêre vlak, veral Swart Suid Afrikaanse Engelse (SSAE) leerders, probleme ondervind met die skryf van goed gestruktureerde, koherente argumentatiewe essays. Vorige navorsing wat op dié terrein gedoen is, het 'n aantal probleme geïdentifiseer wat kenmerkend van SSAE leerders se taalgebruik is en wat 'n nadelige effek op die struktuur, koherensie en grammatikale korrektheid van hul argumentatiewe skryfwerk het. Hierdie studie ondersoek een van daardie kenmerke, naamlik koppelbywoordstukke ("linking adverbials") en die rol wat dit speel in die kohesie en koherensie van leerders se argumentatiewe skryfwerk. Dit word ondersoek in die argumentatiewe skryfwerk van leerders wat Engels as eerste taal ("English Native Language" of ENL), Engels as tweede taal ("English Second Language" of ESL) en Engels as derde taal ("English Foreign Language" of EFL) besig deur te kyk na korpora van leerders se argumentatiewe skryfwerk.

Koppelbywoordstukke speel 'n fundamentele rol in die strukturering van 'n logiese argument. Waar dit inkorrek gebruik word, kan dit die leser van 'n teks verwar en doen dit afbreuk aan die kohesie en koherensie van so 'n teks. Hierdie

studiegebied is nog nie deeglik nagevors deur Suid-Afrikaanse asook internasionale akademici nie. Dit maak hierdie studie des te meer belangrik, omdat dit lig werp op die gebruik van koppelbywoordstukke in leerders se skryfwerk asook op die skakel tussen koppelbywoordstukke en die kohesie en koherensie van 'n teks. Hierdie studie trag om 'n deel van die Engelse taalkunde te ondersoek wat tot op hede net oppervlakkig nagevors is. Die studie bewys dat, hoewel daar reeds na sommige aspekte op dié terrein gekyk is, daar nie werklik ondersoek ingestel is na die probleem van koppelbywoordstukke of na die invloed van koppelbywoordstukgebruik op die kohesie en koherensie van tekste nie. Die navorsing wat in hierdie studie gedoen is, poog om hierdie gaping in die literatuur te vul, al is dit net gedeeltelik.

Korpus linguistiese metodologie vorm die basis van hierdie studie. Dit is 'n linguistiese metodologie gebaseer op die gebruik van elektroniese samestellings van teks wat natuurlik voorkom, of korpora. Hierdie studie fokus op leerder korpora. Daar is twee maniere om korpora te benader vir analise, naamlik 'n korpus-gebaseerde of 'n korpus-gedrewe benadering. In dié studie word 'n korpus-gebaseerde benadering gebruik, omdat hierdie metode akkurate inligting kan verskaf rakende die voorkoms en gebruik van grammatikale strukture. Die korpus-gebaseerde benadering behels die formulasie van 'n hipotese aangaande die probleem en om dan die korpora te gebruik om die hipotese as waar of vals te bewys.

Die data vir hierdie studie kom uit die TLEC (Tswana Leerder Engelse Korpus), die Locness Korpus en die Nederlandse studente skryfwerk komponent van ICLE (Die Internasionale Korpus van Leerder Engels). Elkeen van hierdie korpora bestaan uit argumentatiewe studente essays in Engels. Omdat masjienleesbare korpora gebruik word as bronne van data in hierdie studie is dit vanselfsprekend dat korpus linguistiese metodes aangewend sal word vir data analise. Deur gebruik te maak van Halliday en Matthiesen (2004) en Biber *et al.* (2002a) se kategorieë van koppelbywoordstukke word korpus monsters ge-ettiketeer en geanaliseer.

'n Basiese teoretiese raamwerk word gebruik om definisies te verskaf van grammatikale konsepte en terminologie wat in die studie gebruik word asook om 'n verklarende raamwerk te skep wat sal bydra tot die begrip van dieper onderliggende tema's in die studie. Die keuse van die term 'koppelbywoordstuk' en kohesie en koherensie word bespreek asook die skakel tussen hierdie terme. Die teoretiese raamwerk word ook later in die studie aangewend vir die annotering van die data en die data analise.

Die numeriese data wat in die studie voorgelê word toon aan dat die TLEC grootlik van die DLE en Locness verskil. Alhoewel dit verwag kan word dat die derdetaal korpus die meeste van die moedertaal korpus verskil omdat dit aanvaar word dat derdetaal sprekers minder taalvaardig is as tweedetaal sprekers, toon hierdie studie dat dit nie die geval is nie.

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Die bevindinge van hierdie studie is dat eerstetaal, tweedetaal en derdetaal sprekers verskillende maniere het om koppelbywoordstukke aan te wend in hul skryfwerk. Die studie toon ook aan dat die taal in die skryfwerk van derdetaal studente meer trou bly aan die moedertaal verskeidenheid as die skryfwerk van die tweedetaal leerders. Moontlike verduidelikings hiervoor kan gevind word in Williams(1987) se terme 'economy' en 'hyperclarity', Meshtrie se 'undeletion' hipotese (2003), Van Rooy (2006) se opinie dat nuwe verskeidenhede van Engels, soos SSAE, hul eie norm ontiwkkel, terwyl uitbreidende verskeidenhede, soos die Nederlandse Engels, trou bly aan die eerstetaal norm, en ook die aanleer van taal en oordragverwante kwessies. Hierdie studie toon ook aan dat SSAE leerders nie ten volle geletterd is in akademiese Engels nie, en dat dit 'n kwessie is waaraan die onderrigsisteem in Suid Afrika aandag moet skenk. Verder word aangetoon dat sekere semantiese kategorieë van koppelbywoordstukke oorgebruik word deur sekere studente, terwyl ander dit weer ondergebruik. Hierdie studie openbaar dat die veld van koppelbywoordstukke waardig is van kommer en dat dit ondersoek moet word om die invloed van koppelbywoordstukke op kohesie en koherensie ten volle vas te stel.

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CHAPTER 1

INTRODUCTION

1.1. INTRODUCTION

In the South African secondary and tertiary education system writing is a very important part of the curriculum. Students are expected to master basic writing skills such as writing formal and informal letters, factual and non-factual essays and précis during their years of secondary education in order to learn how to write longer argumentative essays during their tertiary education. Previous research has shown that tertiary learners, especially Black South African English learners, experience problems in writing well-structured, coherent argumentative essays.

De Klerk and Gough (2002:362-363) as well as Schmied (1991:64-75) identify a number of distinct BSAE grammatical features that could have a detrimental effect on the structure, coherence and grammatical correctness of argumentative student writing. These features include students using non-count nouns as count nouns, omission of articles, extensive use of resumptive pronouns, gender conflation in pronouns, simplification of tenses etc.

No mention is made, however, of the adverse effect of the incorrect use of linking adverbials on text coherence and cohesion. In the following example, the incorrect use of the linking adverbial *thus* leads to a breakdown in

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sentence structure and logic, thus having a detrimental effect on the cohesion and coherence of the essay.

(1) Because we want to employ our selves but jobs are nowwhere to be fund thus. <ICLE-TS-KIMC-0361.1>

Linking adverbials appear under the guise of various names. Biber *et al.* (2002b:875) uses the term linking adverbial, while Halliday and Matthiesen (2004:541) terms these words linking devices or cohesive conjunctions. Granger and Tyson (1996) calls them connectors, Tankó (2003) calls them adverbial connectors and Makalela (1998) and Wissing (1987) names them linking words. However, each of these describes the same entity: words that are important devices for creating textual cohesion because they unambiguously signal the relations between certain text units. This is used as the operational definition of linking adverbials in this study and is explored in more detail in the next chapter. This study will investigate the use of linking adverbials and how it affects cohesion and coherence in student argumentative writing.

In this chapter the problem will be defined and the research questions, aims and hypotheses discussed. A brief outline of the methodology will also be given. Finally the outline of the dissertation will be provided.

1.2. PROBLEM STATEMENT

In an outcomes-based education (OBE) system - such as the systems of South Africa and Great Britain – writing skills are extremely important. Brookes and Grundy (1990) investigate the importance of writing in the OBE system of the UK. They state that writing is, along with reading, one of the most important skills that need to be taught in an OBE system. They also say that student writing on secondary and tertiary level needs to display some characteristics, such as the proper organising of information, simplified expression of complex ideas and the persuasion of the reader (Brookes & Grundy, 1990: 12). Since the same OBE system applies to South Africa it can be assumed that these points are also of importance in the South African education system and that it applies to learners in South African schools.

Chaudron (1993:5) states that these characteristics as well as writing skills are very important for students, but says that successful writing that complies with these characteristics is more difficult for L2 speakers than it is for L1 speakers. This point will be elaborated on further in the following chapter. McArthur (1983) also comments that writing skills cannot be neglected in education and that it should be taught early because it serves as the foundation for higher order argumentative and rationalisation skills which aid in the logical construction of academic writing.

Linking adverbials play a fundamental role in the structuring of a logical argument. Used incorrectly, linking adverbials can confuse the reader of a

text and mar the cohesion and coherence of a text. Linking adverbials such as "in my opinion", "firstly", "secondly", "finally", "lastly", "on the one/other hand" are important markers in a text or conversation as they mark the logical procession of an argument. If these markers are used incorrectly, over-used or underused, the logical procession of the argument can be totally destroyed and the text can be become incoherent and non-cohesive. The Hallidayan functional approach to language provides important insight into the link between linking adverbials and cohesion and coherence in a text. Thompson (1996) states that linking adverbials and Halliday's "conjunctive adjuncts" both function on the level of textual metafunction. Thompson (1996) explains how linking adverbials (or conjunctive adjuncts) perform the function of creating a logical structure to an argument. Halliday and Matthiesen (2004:538) state that the cohesive system of conjunction is a "complementary resource for creating and interpreting text". Conjunctive adjuncts, they continue, are the resources with which logico-semantic relationships in texts are created. They set up a contextualising relationship between different portions of text, thus aiding the readability and understanding of a text.

Granger and Tyson (1996:17-27) launched a similar study to determine the influence of the use of connectors on the coherence of foreign language English student's argumentative writing. As will be shown later on in the study linking adverbials and their notion of connectors are in fact the same. As first, second and foreign language English are clearly divergent, it will be interesting to investigate whether linking adverbials are used in different ways in student writing and what the effect of linking adverbial use will be on the

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coherence and cohesion of the texts. Granger and Tyson (1996:17-27) already determined that the incorrect use of linking adverbials inhibits the cohesion of a text, thus making reading and understanding the text more difficult. This investigation will be done with the aid of three corpora, one for each type of English. For English as native / first language (ENL) the Locness Corpus (LC) will be used, for second language English (ESL) the TLEC (Tswana Learner English Corpus) and for foreign language English (EFL) the Dutch English component of ICLE (the International Corpus of Learner English) will be used.

The functional theory of language serves as the theoretical framework for this study. Except for Halliday's conjunctive adjuncts, SFG also helps us to understand the theoretical issue of how language is structured and does so in a way that encourages the investigation of wider practical issues relating to how we use language (Thompson, 1996:222). Moreover, this theory distinguishes three metafunctions of language – the ideational, the textual and the interpersonal metafunction. In this study the second – the textual metafunction - is of importance. The textual metafunction signifies that every message is about something and addressing someone, and that these two motifs can combine without the two restraining each other. Another constituent signified by the textual metafunction is grammar. Grammar is another mode of meaning which connects to the construction of a text. Grammar can be deemed to be the facilitating function for the both of the first two functions – interpreting experience and enacting interpersonal dealings – because these two functions depend on the capability to build up a chain of

discourse and creating cohesion and continuity (Halliday, 2004:29-30). Therefore, the textual metafunction is not only of importance for SFG but also, in particular, for this study.

Functional grammar also provides a basis for educational decisions about ESL and EFL acquisition (Thompson, 1996:223). It can help determine what language to teach in order to empower the learner to succesfully communicate in his or her chosen field. This applies equally to learners of the mother tongue and of a foreign or second language (Thompson, 1996:223). Functional grammar has, according to Thompson (1996:223), proven extremely useful in teaching Enlgish as a foreign language, as it creates "insights on specific areas such as cohesion, modality and theme choice" that can be adapted in the classroom. This clearly shows that Functional grammar is a good starting point for creating the theoretical framework of this study.

When one looks at ESL and EFL use it is important to study the concepts of over-, under- and misuse (Granger, 2003). Misuse, simply put, is the incorrect use of a part of speech or grammatical construction in a text, or an error. For example:

(2) It is important to investigate the impact of theory on texts. **On the other hand**, one cannot impose a theory on a text it has no relevance to (correct use).

(3) It is important to investigate the impact of theory on texts. **Hence** one cannot impose a theory on a text it has no relevance to (misuse).

According to Ellis (1994:580) over-use occurs as a result of an intralingual process such as overgeneralisation, and occurs frequently in ESL and EFL. Learners may over generalise or over-use a certain term or grammatical structure in a language because a limited amount of terms or grammatical constructions were taught at school. For example, the linking adverbial *on the other hand* is used very frequently in the TLEC, an ESL corpus, but almost never in conjunction with *on the one hand*. *However* is used seven times more frequently that any other linking adverbials. In Locness, an ENL corpus, the use of linking adverbials is more evenly distributed, with *on the other hand* used as frequently in conjunction with *on the one hand* as it is used without. Underuse, or avoidance, occurs when certain constructions or words are avoided because the correct use of the word or construction is unknown to the learner (Ellis, 1994:580). In the TLEC we see that the linking adverbial *i.e.* is used only seven times, while it is far more commonplace in the Locness corpus.

To summarise, the questions I wish to answer in this study are:

I. Are linking adverbials used differently ENL, ESL and EFL speakers in their academic writing?

II. Are certain linking adverbials misused, over-used or underused in their writing, and which groups tend to misuse, over-use and underuse these linking adverbials? What influence does this have on the coherence and cohesion of the texts?

1.3. AIMS OF THE STUDY

By investigating student texts in the LC (Locness Corpus) – an ENL corpus, the TLEC (Tswana Learner English Corpus) – an ESL corpus, and the Dutch English component of ICLE (the International Corpus of Learner English) – which contain EFL texts, the study will aim to determine the following:

I.   The extent and nature of possible differences between the use of linking adverbials in ENL, ESL and EFL; and

II. The effect of the difference in the use of these linking adverbials on the cohesion and coherence of a text.

1.4. HYPOTHESES

Given the above, the following null hypotheses can be postulated:

I.   There is no difference in the way in which linking adverbials are used in ENL, ESL and EFL argumentative student writing.

II. The incorrect use or over- and underuse of linking adverbials in ESL and EFL have no effect on the cohesion and coherence of a text.

1.5. METHODOLOGY

1.5.1. CORPUS LINGUISTIC METHODOLOGY

1.5.1.1. Basic corpus linguistic outcomes

Corpus linguistics is a linguistic methodology founded on the use of electronic collections of naturally occurring texts or corpora. This study centres on learner corpora. According to Granger (2003), learner corpora are electronic collections of authentic textual data assembled according to explicit design criteria for a particular SLA (second language acquisition) or FLT (foreign language teaching) purpose. It is encoded and documented in a standardised and homogeneous way that ads to their origin and provenance. Sinclair (2003:4) states that authenticity implies data collected from genuine communications of people going about their everyday business, or performing everyday tasks like writing essays for school. This type of data is also called natural data (Meyer, 2002:56-57). This is in sharp oppossition to experimentally gathered data. In terms of the observer's paradox, speech or writing being collected with the aim of being studied can never be natural, because the mere presence of the observer already changes the data and makes it unnatural (Meyer, 2002:57). As a matter of course, natural data is preferable to unnatural data. This makes corpora of student writing the ideal to study, as it already contains natural data.

There are two ways of approaching corpora. One can either take a corpus-based or a corpus-driven approach. The corpus-based approach entails that one formulates a problem and hypotheses about the problem, and then uses the corpora in order to prove the hypotheses true or false. A corpus-driven approach involves studying a corpus and then allowing the information to speak for itself, formulating no hypotheses (Granger, 2003). In this study a corpus-based approach will be taken, as this method can accurately supply information as to which grammatical structures are found and to what extent they are used.

1.5.1.2. Collection and analysis of data

The main sources of data for this study will be the TLEC (Tswana Learner English Corpus), the Locness Corpus and the Dutch student writing component of ICLE (The International Corpus of Learner English). Each of these corpora consists of argumentative student essays written in English. The three corpora are representative of the three Englishes mentioned earlier in this proposal – the Locness Corpus represents ENL, the TLEC represents ESL and the Dutch component of ICLE represents EFL. All three corpora have been compiled using the ICLE guidelines. The main reason for choosing the TLEC and the Dutch component of ICLE is that the means of education in both countries are very similar. In South Africa, BSAE speakers are often educated in their mother tongue for two or three years and then go on to further their studies in English, often their second or even third language. In

Holland, learners are educated in their mother tongues, but from their third school year English starts to play a very prominent part in education.

As machine-readable corpora will be used as the main sources of information in this study, it follows that corpus linguistic data analysis methods will be employed in this study. An automated data extraction tool, WordSmith, is used to do either concordance searches, wordlist searches or frequency searches. A concordance search is a search that is done for specific words or grammatical constructions in the corpus in order to see in which context they have been used. When texts are loaded into the program, WordSmith automatically displays an alphabetical list of the words as well as a frequency list, displaying words from the most to the least frequent positions in the corpus. This enables one to see how frequently the word one is searching for occurs in the corpus.

1.5.2. BASIC METHODOLOGY

A list of linking adverbials will be compiled and an investigation will be done into the use of these linking adverbials in academic writing in order to narrow the field of research to applicable linking adverbials. The correct use of these linking adverbials as mentioned by Halliday and Matthiesen (2004) as well as Biber *et al.* (2002a) will be used as basis of this investigation. This will serve as lexicon for the tagging of samples from each corpus. Additional examples will be added from the corpora as the tagging progresses. Each corpus will be described as a corpus representing a certain form of English, be it ENL,

ESL or EFL. The ENL corpus will be used as guideline for the Standard English use of linking adverbials. For analysis of the data, the following steps will be taken:

- From each corpus, two 20 000 word samples will be chosen. This is done by randomly selecting essays in the corpus.

- A tagset will be developed using linking adverbial semantic categories provided by Halliday and Matthiesen (2004) and additional examples from Biber *et al.* (2002a) and the corpora.

- Samples will be tagged using the Free Hand Annotator. Tags will be counted using a Perl Script written specifically for this purpose, and using WordSmith as a control method.

- A Correspondence analysis will be done to determine the similarities and differences between the semantic categories of linking adverbials in the corpora and the distribution of linking adverbials in the corpora.

- Furthermore, an error analysis of the linking adverbials will be done, determining whether the linking adverbials are used in a standard or non-standard way.

- Finally, the effect of the misuse, overuse and underuse of linking adverbials on cohesion and coherence will be investigated by analysing five sample essays from each corpus.

1.6. OUTLINE OF THE DISSERTATION

Chapter 2 will provide the theoretical framework for this study by paying attention to the Functional Theory of grammar and its application to the study as well as the use of linking adverbials in Standard English. In Chapter 3 an overview of the literature regarding important terminology surrounding this study is given. Definitions of terms and prior research are investigated. In Chapter 4 the methodology of the study as well as the complete methodology for the data analysis and the development of the tagset will be discussed. Chapter 5 presents the numerical and statistical data obtained from the analysis of the corpus data and links it to the information provided in the literature survey. In Chapter 6 the findings and results will be discussed and an overview of further research will be given.

CHAPTER 2

THEORETICAL FRAMEWORK

2.1. INTRODUCTION

This chapter will present the basic theoretical framework of the dissertation, providing an outline of grammatical concepts, defining various concepts and terms used in the study as well as an interpretative framework which will aid in understanding the deeper underlying issues at the root of the study.

Firstly, there will be a discussion of linking adverbials. The choice of the term 'linking adverbials' will be discussed with reference to various authors' interpretation of the term, as well as where their methods, discussions and terminology differ from or concur with this study's. Following that is a discussion of cohesion and coherence, and the link between linking adverbials, cohesion and coherence. Important issues, like how or why linking adverbials affect cohesion and coherence and what the link between non-standard uses of linking adverbials and a breakdown in cohesion and coherence are, will be addressed. The aim of this chapter is, in the first place, to develop operational definitions for important terms in this study – in other words to look at various definitions and to create a synthesis between them, looking at their shortcomings and strong points in order to find a working and usable definition. Another aim is to develop the theoretical framework that will be used later in the study for the annotation of the data and the data analysis.

2.2. IMPORTANT CONCEPTS

2.2.1. LINKING ADVERBIALS

According to the *Longman Grammar of Spoken and Written English* (Biber *et al.*, 2002a:874) linking adverbials are words used to state the speaker or writer's perception of the relationship between two or more units of discourse. These words serve to structure an argument or train of thoughts logically and should be used in the correct order, or placed in the text at appropriate stages.

Biber *et al.* (2002a:875) state that linking adverbials are important devices for creating textual cohesion because they unambiguously signal the relations between certain text units. This means that the use of linking adverbials have is two-fold: they are either used to emphasise these relations or when the relationships between the units are not immediately clear to the reader. Biber *et al.* (2002a) distinguish between six general semantic categories of linking adverbials. Here they are explicated with examples from the TLEC:

a) Enumeration and addition. Linking adverbials can be used for the enumeration of information for the addition of items of discourse to one another, i.e., *first* and to mark the next unit of discourse being added to another unit, i.e., *similarly* etc (Biber *et al.*, 2002a:875-876).

(1) *first* he came home late at night, started to shout at me... <ICLE-TS-KIMC-0345.1>

b) Summation. These linking adverbials show that a unit of discourse is intended to conclude the information in the previous unit of the text, for example: *To summarise* etc. (Biber *et al.*, 2002a:876).

(2) *In conclusion* these players will be home at all times when needed <ICLE-TS-NOUN-0151.1>

c) Apposition. These adverbials show that the second unit of a text is to be treated as an equivalent to the previous unit or that it is to be included in the previous unit. (Biber *et al.*, 2002a:876-877).

(3) more emphasis on the key words from the title, *i.e.* defining some key words like prison... <ICLE-TS-NOUN-0416.1>

d) Result/inference. Linking adverbials in this category show that the second text or discourse unit states the result or consequence of the preceding statement in the text, e.g.

(4) South Africa is a developing country and should *thus* not be compared to Europe... <ICLE-TS-NOUN-0019.1>

e) Contrast/concession. This is a broad category of linking adverbials which contains items that show an incompatibility between the information given in different discourse or text units. For example:

> (5) or there is no job. *But* the main thing is the white men closed their companies... <ICLE-TS-KIMC-0289.1>

f) Transition. These adverbials mark the insertion of an item which does not follow directly from the previous discourse and is signalled as being only loosely connected, or completely unconnected.

> (6) Most of the time, *in fact* every time, experience is always required in job advertisements. <ICLE-TS-NOUN-0455.1>

Halliday and Matthiesen (2004:541) provide what they calls "the system of conjunction". Here he elaborates on linking devices (linking adverbials) divided into three broad categories, namely elaborating, extending and enhancing. It is important that these concepts are understood before Halliday's model is discussed in more detail.

Halliday and Matthiesen (2004:395) call elaborating, extending and enhancing "three kinds of expansion". Expansion is defined in the following way (Halliday and Matthiesen, 2004:395):

...given a clause (or part of a clause complex...) then this may enter into another clause (or part of a clause complex) which is an expansion of it, the two together forming a clause nexus. ...there are three ways of extending a clause: elaborating it, extending it, and enhancing it.

Therefore, expansion is the way in which clauses are linked in writing and these links are established through either elaborating, extending or enhancing.

With elaboration, one clause elaborates on the meaning of another by further specifying or describing it. The secondary clause does not introduce a new element, but rather provides further characterisation of an element that is already there, and serves the purpose of refining, restating, clarifying or adding a descriptive comment to it. For example:

(7) Moo, however, and the novel I'm writing now, *which is a racehorse novel*, are comic.

The section in italics elaborates part of the underlined clause – "the novel I'm writing now" (Halliday and Matthiesen, 2004:396). There are two categories of elaborating relation, namely apposition and clarification, say Halliday and Matthiesen (2004:540-543). Elaborating apposition refers to when an element is re-presented or restated, and can be divided into two subcategories, namely exposition and exemplifying.

- Elaborating apposition by exposition:

> (8) ...and not deny moral ethics, *in other words,* live as best as you can in the knowledge that life is absurd. <ICLE-BR-SUR-0014.1>

In this example, the first statement is explained further after the linking adverbial *in other words*. Elaborating by exposition, therefore, implies that the writer makes a statement and then explains what he meant through a clarifying additional clause after the linking adverbial.

- Elaborating apposition by exemplifying:

> (9) Nuclear power *for example,* made to look bad no matter how minor the situation... <ICLE-US-MRQ-0006.1>

In this example a statement is supported by providing an example. The linking adverbial is used to show that a substantiating example will be given to clarify the statement.

Elaborating clarification entails that the elaborated element is not simply restated, but rather reinstated, summarised, made more precise or clarified in another way. Again, elaborating clarification can be divided into subcategories, namely:

- Elaborating clarification with a corrective:

> (10) the passing of the European Communities Act
> 1972 is one example of entrenchment (*or*
> *rather*, it has not been proved otherwise).
> <ICLE-BR-SUR-0001.3>

Elaborating clarification involves a statement being made and a linking adverbial used to make a counteractive statement, signalling that the writer does not completely agree with the statement made in the first clause.

- Elaborating clarification with a distractive:

> (11) *Incidentally*, the Treaty of Rome is
> particular in that it is directly applicable
> to the UK. <ICLE-BR-SUR-0015.3>

When this type of linking adverbial is used, it signals that the writer is making a statement that distracts from the line of argument. This is done to introduce a new line of thought or to signal that what is being said is not entirely relevant to the argument, but is something that needs to be noted.

- Elaborating clarification with a dismissive:

> (12) ...they would never in *anyway* leave this
> beatiful country of ours... <ICLE-TS-NOUN-
> 0098.1>

This linking adverbial shows a type of indifference on the part of the writer, or shows that he/she is trivialising the matter. In a sense it shows a sense of disbelief on the part of the writer – in the example above, the writer does not believe that people will leave the country.

- Elaborating clarification by particularising:

(13) like the reason of wanting soccer players,
more especially South Africans to play in
South Africa seems to aim at improving
soccer <ICLE-TS-NOUN-0386.1>

This linking adverbial is used to show a specific or particular item of interest in the line of argumentation, pointing to something specific rather than generalising. In the example above it points specifically to South African soccer players and not to soccer players from any other country.

- Elaborating clarification with a resumptive (no corpus example could be found):

(14) *As I was saying,* soccer players don't get paid enough.

By using this linking adverbial the writer is showing that he/she is continuing his/her argument, perhaps after interrupting himself/herself by using an elaborating clarification with a distractive.

- Elaborating clarification with a summative

> (15) *In short,* nowadays many people spend their evenings in front of their television set <ICLE-DB-KVH-0006.2>

This linking adverbial is used to summarise an argument – a succinct way of tying all the lines of the argument together.

- Elaborating clarification with a verificative:

> (16) *Actually* no, not yoda, but yoga. <ICLE-US-MRQ-0005.1>

By using this linking adverbial the writer is verifying what he/she means with a statement. In this example the writer confirms that he/she is, in fact, writing about yoga and not yoda.

With extension, one clause extends the meaning of another by adding something new to it. That which is added may be an addition, replacement or alternative (Halliday, 2004:405). Therefore, the element is not restated or

reinstated, but rather something else is added to it to enrich the element. For example:

(17) <u>AIDS is a killer disease.</u> *Furthermore* <u>it has reached epidemic proportions in Africa.</u>

The element of AIDS being a killer disease is introduced. This element is then enriched by adding more information – that it has reached epidemic proportions – which is signalled by the word *furthermore*. Halliday (2004: 405-410; 543-544) distinguishes between three types of extension, namely additive, adversative and varying. Extending additive refers to the addition of information and can be subdivided into two categories, namely:

- Extending additive positive:

(18) ...because of having Aids and they are *also* poor, some of them thier family's can't even bury them... <ICLE-TS-KIMC-0358.1>

By using this linking adverbial, the writer signifies that he/she is adding something to the argument that is linked to a previous statement through contributing to the meaning. In this example, *Aids* and *poor* are linked by the adverbial *also*, as it shows that both elements contribute to the circumstances of the people mentioned in the essay.

- Extending additive negative:

> (19) why homosexuals should be allowed to serve, *nor* does he look at the possible consequences. <ICLE-US-MRQ-0013.1>

This linking adverbial ads something to the argument but, instead of linking the clauses by adding something with the same meaning (as with extending additive positive) it ads something with a different meaning.

Extending adversative indicates that an element will be added that may not support the first element, for example:

> (20) We are getting there, *yet* maybe a little bit too slow. <ICLE-DB-KVH-0042.2>
>
> (21) *On the other hand,* opponents have a definite strength in the fact that they present the probable consequences. <ICLE-US-MRQ-0037.1>

Extending varying refers to when one clause is represented as being in total or partial replacement of another. It can be divided into three categories, namely:

- Extending varying replacive:

> (22) *Instead* of paying for the damages they have to work for it. <ICLE-DB-KVH-0052.2>

This linking adverbial is used when a statement is made to replace another. In this example the statement *they have to work for it* replaces the statement that they have to pay for the damages.

- Extending varying subtractive:

> (23) *Apart from that* there is the outer appearance to be reflected upon. <ICLE-DN-NIJ-0002.2>

The use of this linking adverbial indicates that the meaning is extended by "taking away" something that is said before, or omiting it. In the example above, the inner appearance of what is described is omited to describe the outer appearance.

- Extending varying alternative:

> (24) *Alternatively* the have simply been omitted altogether from popular press reports. <ICLE-DN-NIJ-0004.3>

By using this linking adverbial the writer is providing an alternative for what has been said before. This often occurs when more than one option or solution is provided by the writer, and one option or solution can be used as an alternative for the other.

Enhancement is what occurs when one clause enhances the meaning of another by qualifying it in one of a number of possible ways – by referring to time, place, manner, cause or condition (Halliday, 2004:410). There are various types of enhancement that creates cohesion. The first is spatio-temporal, where spatial relations are used as text-creating cohesive devices. Spatio-temporal can be divided into the following subcategories:

- Enhancing spatio-temporal simple (indicating an action that takes place in the same moment in time) – no corpus example found:

> (25) We were talking. *Just then*, there was a knock at the door.

This type of linking adverbial is used to show that two or more actions occur in the same space of time. In the example above, there was a knock at the door at exactly the same time that they were talking to each other.

- Enhancing spatio-temporal complex (indicating an action that takes place at a later moment in time):

(26) ...when they kiss and the lights go out
until the *next morning*. <ICLE-US-SCU-0009.2>

When this type of linking adverbial is used, it indicates a progression in time and that one action takes places at a later stage of time than the other.

Secondly, there is manner where enhancement is created by comparison or reference. Again, manner can be divided into two categories, namely:

- Enhancing manner comparative

    (27) *Similarly*, prisoners are bought food and
    clothes. <ICLE-TS-NOUN-0403.1>

This type of linking adverbial is used to show that two things happen in the same way or manner. In the same way that X is happening, Y is happening. This shows similarity between to concepts – in other words, the concepts are not exactly alike, but there are parallels between the two.

- Enhancing manner means

    (28) *In the same* way sisters of the orphans,
    they try to provide their young sisters and
    brother with food. <ICLE-TS-NOUN-0228.1>

By using this linking adverbial the writer shows that two things are the same. Not only are they similar, but they are most likely exactly alike. In the example above, the sisters take care of orphans in exactly the same way that they provide the young brothers and sisters with food.

Causal-conditional, or the relation of cause figures, is third. It can also be divided into two subcategories:

- Enhancing causal-conditional causal

> (29) *As a result* of prostitution the HIV/AIDS virus has been spread in all countries of Africa. <ICLE-TS-WITS-0005.1>

This linking adverbial shows that one thing is the cause of another, or that one thing is the result of another. In the example above, the spread of AIDS through Africa is the result of prostitution.

- Enhancing causal-conditional conditional

> (30) *Nevertheless* through this ambiguity de Gaulle was able to implement Article 16. <ICLE-BR-SUR-0029.1>

The use of this linking adverbial shows the continuation of an action or argument despite circimstances that might inhibit it.

Lastly, matter is where cohesion is established by the 'matter' that has been gone before. The two subcategories are:

- Enhancing matter positive

(31) *In that respect* man and women are equal. <ICLE-DB-KVH-0034.3>

This linking adverbial is clearly a link between what is being said and what has been said before. It serves to establish a clausal link and to strengthen the argument.

- Enhancing matter negative (no corpus examples available)

(32) In Europe they are paid well. *Elsewhere* soccer players suffer.

This linking adverbial establishes an implicit link by referring to what has been said before. The country *Europe* has been mentioned and instead of saying it again, the writer uses the linking adverbial *elsewhere*.

On the following page is a graphic representation of Halliday and Matthiesen's system of conjunction (2004:541).

FIGURE 1: The system of conjunction.

Elaborating
- Appositive
  - Expository — in other words, that is, I mean
  - Exemplifying — for example, for instance, to illustrate
- Clarifying
  - Corrective — or rather, at least, to be more precise
  - Distractive — by the way, incidentally
  - Dismissive — in any case, anyway, leaving that aside
  - Particularizing — in particular, more especially
  - Resumptive — to resume, as I was saying
  - Summative — in short, briefly, to sum up
  - Verificative — actually, verificative

Extending
- Additive
  - Positive — and, also, moreover, furthermore
  - Negative — nor
- Adversative — but, yet, on the other hand, however
- Varying
  - Replacive — instead, on the other hand
  - Subtractive — apart from that, except for that
  - Alternative — or (else), alternatively

Enhancing
- Matter (respective)
  - Positive — here, there, as to that, in that respect
  - Negative — in other respects, elsewhere
- Manner
  - Comparative — likewise, similarly, in a different way
  - Means — in the same manner
- Spatio-temporal
  - Simple
    - Following — then, next, secondly
    - Simultaneous — just, then, here, now
    - Preceding — previously, up to now
    - Conclusive — finally, lastly
  - Complex
    - Immediate — at once, thereupon
    - Interrupted — soon, after a while
    - Repetitive — next time
    - Specific — next day, that morning
    - Durative — meanwhile, at that time
    - Terminal — until then
    - Punctiliar — at this moment
- Causal-conditional
  - Causal
    - General — so, then, therefore, hence
    - Specific — as a result, on account of this ...
  - Conditional
    - Positive — then, in that case
    - Negative — otherwise, if not
    - Concessive — yet, still, though, nevertheless

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When one investigates and compares Biber *et al.*'s (2002a) and Halliday's

categories it becomes clear that there is some overlapping between the two.

It was, therefore, decided that a comparison should be made. The starting

point was to draw a table with clearly defined categories – Biber *et al.*'s on the

one side and Halliday and Mathiessen's on the other – and draw comparisons

between them.

Table 1: Comparison between Biber *et al.* and Halliday and Matthiesen.

Linking adverbials (Biber *et al.*)		Linking adverbials (Halliday and Mathiessen)	
Category	Examples	Examples	Category
Enumeration	lastly, first, second... firstly, secondly, finally, for one thing, first of all, in the first place, in the second place, for another thing, next, to begin with	then, next, firstly, lastly	Enhancing - spatio-temporal simple
Addition	also, by the same token, in addition, similarly,	and, also, moreover, furthermore, nor	Extending - additive positive & negative
	further, furthermore, likewise, moreover	in the same way, in the same manner	Enhancing - manner comparative &means
Summation	in conclusion, all in all, in sum, to conclude, overall, to summarise	in short, to sum up	Elaborating clarifying summative
Apposition	for example, namely, in other words, i.e.,	in other words, that is,	Elaborating appositive - expository
	that is to say, for instance, in this way, because which is to say, specifically	for example, for instance, to illustrate, I mean	Elaborating - clarifying exemplifying
Result / inference	consequently, thus, therefore, hence, since	as a result, for that purpose	Enhancing - causal-conditional general & specific
Contrast	conversely, in contrast, in contrast, alternatively, on the other hand, instead, by comparison, on the contrary	instead, on the other hand apart from that, or else, alternatively, except for that	Extending - varying replacive, subtractive, alternative
Concession	nevertheless, still	but, yet, however	Extending - Adversative
	though, anyway, besides,	nevertheless, still, though	Enhancing - causal-

	all, yet, although, however		conditional conditional
Transition	incidentally, meanwhile, now, by the way	meanwhile, at that time	Enhancing - spatio-temporal complex

Enumeration and addition are compared to Enhancing (spatio- temporal simple) and Extending (additive positive & negative) because they have the same function. Enumeration and addition are used for adding discourse items to another and to mark the addition of a new unit of discourse. Similarly, Enhancing (spatio- temporal simple) and Extending (additive positive & negative) fulfil these same needs.

Summation is compared to Elaborating (clarifying summative) as they both serve to conclude the information in the previous unit of the text and so to provide a clarifying, succinct view of the argument.

Apposition is compared to Elaborating (appositive expository) and Elaborating (clarifying exemplifying) because they all serve to show that the second unit of a text is to be treated as an equivalent to the previous unit or that it is to be included in the previous unit, and thus clarifies and explicates the argument.

Enhancing (causal-conditional general and specific) is compared to result and inference as they all show that the second text or discourse unit states the result or consequence of the preceding statement in the text, thus establishing a cause-and-effect outcome.

Comparing contrast and concession with Extending (varying, replacive, subtractive and alternative) and Extending (adversative) is justified because all the categories contain items that show an incompatibility between the information given in different discourse or text units, thus extending the argument by providing alternatives.

Transition is compared to Enhancing (spatio-temporal complex) because both categories mark the insertion of an item which does not follow directly from the previous discourse and is signalled as being only loosely connected or completely unconnected.

At the hand of this data, a more condensed graphic representation can be made. This table shows the overlapping categories. Halliday and Matthiesen (2004:541) make provision for some categories not mentioned by Biber *et al.* (2002a), for example Enhancing (matter). Therefore, Halliday and Matthiesen's model will serve as theoretical framework for the data analysis that will follow later in the study and also as framework for the development of the tagset when the data needs to be tagged later on.

Table 2: Comparison between Biber *et al.* and Halliday and Matthiesen (condensed).

Biber *et al.* (2002a)	Halliday (2004)
Enumeration / Addition firstly, secondly, finally, lastly, first, second, third (etc.), for one thing, for another, next, to begin with, first of all, in the first place, in addition, similarly, also, by the same token,	**Enhancing (spatio-temporal; manner)** **Extending (additive)** and, nor, likewise, in the same manner, then, lastly

furthermore, likewise, moreover	
Summation in sum, to conclude, all in all, in conclusion, overall, to summarise	**Elaborating (clarifying)** thus, in short, to sum up
Apposition in other words, i.e., for example, which/that is to say, for instance, namely, specifically, in this way,	**Elaborating (apposition, clarification)** that is, I mean, for instance, to illustrate
Result / Inference consequently, thus, therefore, hence, since	**Enhancing (causal – general and specific)** as a result, for that purpose
Contrast / Concession in contrast, alternatively, on the other hand, conversely, instead, on the contrary, in contrast, by comparison, though, anyway, besides, nevertheless, still, in any case, at any rate, in spite of, after all, yet, although, however	**Extending (varying), Extending (adversative)** **Enhancing (causal-conditional)** instead, on the other hand, apart from that, except for that, or else, alternatively, but, yet, however, nevertheless, yet, still, though
Transition incidentally, meanwhile, now, by the way	**Enhancing (spatio-temporal)** meanwhile, at that time

Linking adverbials have also been studied by others who explain this same linguistic phenomenon, but under different names. Roodt (1993) call these words conjunctions. She lists non-standard uses of these words, for example:

(33) *However* we tried, we couldn't do it.

(Confusion with *however hard we tried* or *no matter how hard we tried*)

(34) It is clear that *therefore* we can not prove it.

(Incorrect placement of *therefore* – *Therefore* it is clear would be correct)

Roodt restricts her studies of conjunction to the words *however, e.g., therefore, then* and *and*. However, the term conjunction is inappropriate in this study. In her study, Roodt focuses on the conjunction 'and' and other linking adverbials. Her aim was not to study cohesion, but rather syntactic and collocational appropriateness at a surface syntactic level within the

clause. She does not, however, examine inter-clausal connections as this study does. Biber *et al.* (2002a:456) defines a conjunction as "a type of function word that connects clauses (and sometimes phrases and words)." Linking adverbials are defined as "[an] adverbial that relates a clause or text unit to preceding (or following) clauses" (Biber at al, 2002:458). Thus a conjunction joins two parts of a sentence together, where a linking adverbial shows the connection between either two clauses or two units of a text. The examples Roodt (1993) uses are indeed examples of linking adverbials, although she chooses to call them conjunctions.

Makalela (1998) and Wissing (1987) call these words **linking words**. Wissing (1987:81) cites examples of what he calls "idiosyncratic use of ungrammatical connective forms". Some examples given are:

> (35)   Tess was confused *why because* she was in love with
>   two men.
>
> (Confused. *Why? Because*)
>
> (36)   He was doubting *as to whether* he must leave her.
>
> (*as to* redundant, *must*=should or *she must*=to)
>
> (37)   They wanted money *unless* he would die.
>
> (*unless* = or else, failing which)

Makalela (1998:58-59) states that learners often use linking words at the beginning of sentences which leads to the formation of incomplete sentences, i.e.:

> (38)   *Although* the fundamental increase of finance have been
>   finalised by the government.

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(39) *But* on the other hand, the one who should receive and

sign it in order to satisfy all the demands of the students;

namely, the Vice-Chancellor and the principal of this

institution, Professor Njabulo Ndebele.

However, he mainly investigates the word *and* and concentrates on the

overuse of this word.

(40) I started walking very fast *and* they followed us *and* the

other man grabbed my aunt's hand *and* commanded us to

stop...

(*and* used instead of punctuation)

It is quite clear that what Makalela and Wissing call linking words and what

this study terms linking adverbials are the same thing. The same basic words

are described by Makalela and Wissing and in this study. Both also note the

non-standard use of these words, as is the aim of this study. Though both

Makalela and Wissing investigate features of surface connectivity and touch

briefly on issues of inter-clausal connections, neither of them truly investigate

or explain the effects of non-standard use on the cohesion or coherence of the

text. This is the main point of difference between the studies of Makalela and

Wissing and this study. Though inter-clausal connections are discussed in all

of these studies, this study aims to do more than merely point out what is

standard and non-standard uses and where they occur. This study aims to

explain the effect of non-standard linking adverbial usage on coherence and

cohesion.

Granger and Tyson (1996) do a corpus-based study of these words in EFL learner writing (English writing of French speaking students) and call them **connectors**. They cite words such as *actually, e.g., for instance, however, instead* and *though* as connectors. In their article they define connectors as "'certain attitudinal discourse markers (that have) clear cohesive links' and some 'emphasisers' which seem to add a new dimension that strengthens the argument or, in the case of 'in fact' for example, give a new turn to the argument" (Granger & Tyson, 1996:20). They concentrate on the overuse and underuse of these connectors and the influence of this on the cohesion of a text. Some examples cited are:

> (41)   The military service forces the young man to postpone the beginning of his professional career but also of his starting a family. *As a matter of fact,* it seems impossible for him to get married and have children if he has to stay away from home for one year.

(No corroboration between first and second sentence.)

> (42)   This kind of union will be economic. Therefore, I think nobody will have to fear for his cultural identity. *On the contrary* if Europe achieves a political union one day, the European citizen will have to destroy what made him belong to his previous nation.

(Confusion with the French *au contraire*, which can be used to express both a concessive and antithetic link. Possible other words to use here would be *on the other hand* or *however.*)

From Granger and Tyson's examples and concerns about overuse and underuse it seems clear that connectors and linking adverbials are used in the same sense in their article and this study respectively. There is a marked difference between typical BSAE research and the research of Granger and Tyson. Where, in the previously discussed South African studies, researchers pointed out only the non-standard uses of linking adverbials, Granger and Tyson are also concerned with the effect of non-standard use on cohesion and coherence. This is an approach this study will closely follow and mirror.

Tankó (2003) discusses in her article what she calls "the problematic nature of the use of **adverbial connectors** in [Hungarian] non-native writers' English texts". She justifies her choice of terminology by saying that the term *connector* is normally used to refer to coordinating and subordinating conjunctions and adverbial connectors. She bases her study on what Quirk *et al.* (1985:631) call conjuncts and lists the seven types of adverbial connectors:

    (a) Listing (for example *first, second, third*)

    (b) Summative (i.e., *To summarise*)

    (c) Appositive (for example *i.e.*)

    (d) Resultive (i.e., *thus, therefore*)

    (e) Inferential (i.e., *probably*)

    (f) Contrastive (for example *on the one hand/on the other hand*)

    (g) Transitional (i.e., *however*)

She also refers to what Halliday and Hasan (1976:631) call *compound adverbs* (words like *therefore, subsequently* and *nevertheless*). Tankó's study also focuses on overuse, underuse and misuse of adverbial connectors in

EFL corpora. She states that "any adverbial connector in any position within a sentence is considered a cohesive device and included in the analysis" (Tankó, 2003).

Halliday and Matthiesen (2004) term these words **cohesive conjunctions**. In this sense, conjunction refers broadly to "the combining of any two textual elements into a potentially coherent complex semantic unit" (Thompson, 1996:156). This means clause constituents that serve a textual function – words such as *but*, *because*, *nevertheless* and *therefore*. Ultimately, conjunctions can then be studied on three levels: within the clause, between clauses and between sentences or text units such as paragraphs (Thompson, 1996:157).

From the discussion above, it becomes clear that there are many descriptive titles given to the word or words that link text units together. The other factor evident from this research is that there are differing opinions about what linking words / connectors / conjunctions / linking words link together. Roodt and Tankó argue that these words link sentence units like clauses. Makalela, Wissing, Biber, Halliday as well as Granger and Tyson argue that these words can link either sentence units or textual units or both. Halliday (1985:64) argues, however, that clauses can have thematic structure. He states that in English, as in many other languages, the clause has the character of the message, and, therefore, it is a communicative event. In English the clause is organised as a message. The message consists of the theme and the rheme, the theme being the point of departure of the message. Clauses are "at one

and at the same time a representation of experience, an interactive exchange, and a message" (Halliday, 1985:53). He then introduces three metafunctions to which these three aspects of the meaning of the clause can be related.

(a) Ideational metafunction or the representation of experience. This includes our experience of the world around us and inside us. The ideational function of the clause is to represent what we, in a broad sense, can call processes: actions, events and relations.

(b) Interpersonal metafunction, or meaning as a form of action – the speaker or writer doing something to the listener or reader by means of language. The interpersonal function of the clause is that of exchanging roles in rhetorical interaction: statements, questions, offers and commands.

(c) Textual metafunction, or relevance to the context: both the preceding and following text, and the context of the situation. The textual function of the clause is that of constructing a message (Halliday, 1985:53).

What is of particular interest with regard to the question of whether linking words link clauses or text units, is the textual metafunction. The clause can be regarded as a text unit itself, because it fulfils the textual metafunction of linking preceding and following units of text.

Thompson (1996:134) also clarifies the debate by stating that "[C]onjunctive adjuncts, such as 'however', 'alternatively' and 'as a result', signal how the clause as a whole fits into the preceding text". He says further that cohesive conjunctions (links between separate text units) are similar to conjunctions

(links in the same sentence, linking two sentence units together) in that they signal the same kind of semantic relationship, but that they differ because conjunctions link two clauses together and cohesive conjunctions show how text units (for example two sentences or paragraphs) relate to each other (Thompson, 1996:134). If one then considers Thompson's statement that "conjunctions can then be studied on three levels: within the clause, between clauses and between sentences or text units such as paragraphs" (Thompson, 1996:157), in the light of the aforementioned argument it becomes clear that conjunctions are studied within the clause, while cohesive conjunctions, or linking adverbials, are studied between sentences or text units.

Therefore, I have to disagree with Roodt, who studies conjunctions as linking adverbials, and Tankó who states that linking words occur only within a sentence. Along with Granger and Tyson, Halliday, Makalela and Wissing I will treat linking adverbials as words that link textual units such as sentences and paragraphs and serves a textual function: to construct a message and to indicate the relation between preceding and following text. This is then also the operational definition of linking adverbials as it will be used in this text. The reason why I choose to call these words linking adverbials is because Biber et al.'s (2002a:874) term, linking adverbials, and their definition of linking adverbials (linking adverbials are important devices for creating textual cohesion because they unambiguously signal the relations between certain text units) ideally suits my own operational definition of linking adverbials. However, Halliday and Mathiessen's categorisation of linking adverbials will

serve as framework for data analysis, since their categories are very specific and easy to use.

2.2.2. COHESION AND COHERENCE

According to Halliday (1985:288-290) and Halliday and Hasan (1975) cohesion is the way in which a text is linked together to make it more comprehensible to the reader. Cohesion is created in four ways. The first way is through reference, where the participants introduced into the text become a reference point for something that follows in the same text, for example:

> (43) *Henry can't come and play today. We must find someone else (than Henry).*

Secondly, cohesion is created through ellipsis, where a clause, part of a clause or part of a verbal or nominal group is presupposed at subsequent places in the text by means of positive omission. In other words, by saying nothing, when something is required to make up the sense. Either the structure is left unfilled, for example:

> (44) *Not I for I will not wake him*

Or a place holding element is inserted to signal the gap, i.e.:

> (45) *For if I do...*

In the third instance, it is created by conjunction, where a clause or complex is related to what follows it by a set of specific semantic relations. Examples are words like *namely, yet, and, or, then* and *so*. Lastly, there is lexical cohesion,

where continuity is established by the choice of words, repetition of words or the presence of keywords in a text.

Cohesion aids in linking certain elements in a text in order to form a logic unit. It helps the reader to distinguish between a well-formed text and a list of random sentences strung together. Patricio (1993:9) states that cohesion helps to "create text" and is one aspect of textual function. Cohesion in a text leads to text effectiveness and readability, in other words the reader of the text doesn't have to struggle in order to figure out what the text has to say (Carstens, 1997:114). To my mind the function with the most influence on this study is the function of text texture. Halliday and Hasan (1976:2) state that text texture is determined by the relationship between certain elements in a text, i.e., the relationship between certain linguistic elements in a text contributes to the unity in a text:

> There must be ways in which the sentences that compose such a text are linked. These order arrangements, or sentence sequences, will serve to integrate the text and together provide the cohesion we can detect.

Halliday and Hasan (1976:299) state that cohesion helps to set a semantic continuity between different parts of the text. This continuity aids in creating a continuous thread of thought in the text and it enables the reader of the text to form of gestalt off the text. According to Carstens (1997:110), cohesion is normally used in the same context as unity and logic. Carstens cites definitions from many other sources in order to define the concept of cohesion. Aziz (1988) states that cohesion is focused on finding the way in

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which sentences logically comes together to form the text as a whole (1988:148). De Beaugrande and Dressler (1981:3) say that cohesion has to do with

> ...the ways in which the components of the surface text, i.e. the actual words we hear or see, are mutually connected within a sequence. The surface components depend upon each other according to grammatical forms and conventions, such that cohesion rests upon grammatical dependencies.

This definition is particularly valid in the question I wish to pose, as it will prove that "grammatical dependencies" such as linking adverbials affect the cohesion of a text. Cohesion enables the text to function as a meaningful whole (Carstens, 1997:113). According to Patricio (1993:7) cohesion simply means "sticking together". Applying this term to language means "describing what it is in text...that makes it a whole".

At first it might seem that cohesion and coherence are two very similar terms. De Beaugrande and Dressler (1981:13) state that cohesion describes the "connectivity of the surface" of the text while coherence describes "connectivity of underlying content" in a text. Carstens (1997:116) provides the following distinction between the two concepts. Cohesion focuses more on the lexico-grammatical units in a text and the way in which they show a semantic relationship, while coherence focuses on the underlying conceptual links in a text. The question is: can cohesion and coherence exist apart from one another? There are many overlapping aspects in the two terms, even though they work on different levels of the text. Both are interested in the

logical progression on the text, be it on the surface level or on the deeper level of context and meaning. Neubert and Shreve (1992:102) state that "it is not at all possible to consider coherence and cohesion separately". These two concepts are linked and should always be considered together. A problem occurs, however, when cohesive ties are established in a context where no coherence is present, or when there is a mismatch between the cohesive tie and the type of coherence. For example, when cohesion is created through conjunction, but the context is wrong, for instance this example from the TLEC:

(46) If South AFrica can creat more factories and companies we might not be affected by this deseas hence to we might find a medicene for this. <ICLE-TS-NOUN-0136.1>

This relates again to Halliday's textual metafunction. If we accept that lexicogrammar is another mode of meaning which connects to the construction of a text, we can assume that when grammar is incorrectly used the textual cohesion of the text is compromised in such a way that both cohesion and coherence in a text becomes virtually non-existent.

The question remains: how do we identify cohesion and coherence in a text? Widdowson (1997:26) explains that cohesion is recognised where a propositional relationship can be established across sentences, by reference to formal syntactic signals. In short, says Patricio (1993:11), the text must be

understood by the reader: there must be a mingling of both semantic and syntactic information. Coherence is more difficult to define. Widdowson (1997:35) states that a text is coherent when the language is being used to function within a given context. Therefore, coherence is a quality of the text itself that the reader recognises by reference of the rules at his disposal. For a text to be coherent it must also operate within a context, says Patricio (1993:32). The context of different paragraphs must be the same in order for the text to be logical and in order to create continuity. A text becomes non-sensical or incoherent when the reader can perceive no such continuity.

The operational definition for cohesion and coherence in a text is then that a text is coherent with respect to the context of situation and, therefore, consistent in register and context, and that it is coherent with respect to itself and, therefore, cohesive.

2.3. CONCLUSION

The basic theoretical framework for this dissertation is now firmly established. By providing an outline of grammatical concepts, defining various concepts and terms used in the study as well as an interpretative framework which aids in understanding the deeper underlying issues at the root of the study, a firm theoretical basis for this study has now been founded. This theoretical framework can now be used as basis for the data analaysis that will be presented later in this study.

CHAPTER 3

SURVEY OF LITERATURE

3.1. INTRODUCTION

In this chapter a survey will be given of research done prior to this study. This chapter will focus mainly on linking adverbials in the South African and international contexts as well as national and international views on student academic writing and the problems surrounding it. It will focus on the broader issues of cohesion and coherence in student academic writing.

3.2. LINKING ADVERBIALS

3.2.1. LINKING DEVICES IN SOUTH AFRICAN ACADEMIC WRITING

As discussed in detail in the previous chapter, Makalela (1998), Wissing (1987) and Roodt (1993) all made cursory investigations into the use of linking adverbials in BSAE. The authors use a range of different terms to describe these words. They are called "linking words", "conjunctions" or "connectors". Table 1 shows that the different terms still describe the same words and, therefore, they all fall under the term linking adverbial. Makalela (1998:58) and Wissing (1987: 80) report that BSAE learners have an "underdeveloped style of using linking words" in their argumentative writing and written speech. Roodt (1993:63-87) also lists non-standard grammatical items in BSAE argumentative writing and also mentions that the incorrect use of conjunctions

is a worrying and common phenomenon. De Klerk and Gough (2002:366) state that the idiosyncratic use of discourse markers are strongly influenced by the mother tongue. The trend in South African studies of linking adverbials is to investigate linking adverbials in student writing from real examples – essays written by students on the specific request of these researchers. It aims specifically to highlight non-standard use of linking adverbials and emphasising what the standard use would be. Makalela and Wissing also both voice concerns that the incorrect use of linking adverbials inhibits the cohesion and coherence of a text.

TABLE 1: Linking adverbials that have been investigated in the South African context

Makalela (1998) & Wissing(1987) "Linking words"	Roodt (1993) "Conjunctions"	De Klerk & Gough (2002) "Discourse markers"
However	However	
Only		
Though		
		In fact
		In my opinion
	e.g.	
	Therefore	
		Again
Then	Then	
And	And	
Although		

Roodt (1993) mentions that the incorrect use of linking adverbials in student writing makes it difficult for the reader to understand, because the logical train

of thought is lost when the wrong linking adverbial is used or when it is used in the wrong context. For example:

(1) *Although* some of us may claim to be *however* educated, there will still be a percentage of stupendous thinking in our mentality.

Here *although* is used correctly, while *however* is used out of context and is superfluous in the sentence. This may confuse the reader and makes the sentence difficult to read. However, Roodt doesn't state why linking adverbials are used incorrectly or provide solutions for what might be done about it. Another difficulty with Roodt's study is that she uses the term "conjunction" to refer to linking devices. The term "conjunction" refers to a linking word in a sentence. "Linking adverbial" refers to a construction which links paragraphs or arguments to create a logical train of thought. Roodt cites the following example as a conjunction: *We were late for school. Therefore we catch a bus.* In this sentence the word *Therefore* functions as linking adverbial and not as conjunction, as it doesn't function in a sentence, but link two thoughts together. "Conjunction" is, therefore, not the most appropriate term, but is quoted as is from the original text. The difference between conjunctions and linking adverbials has been discussed fully in the previous chapter.

Wissing (1987:80) states that "[T]he English used by Bantu speakers of the language frequently reveals a great deal of confusion relating to the organisation of ideas within a sentence, and the linking of sentences to provide a logical, flowing and meaningful statement". He says further that this

confusion is most noticeable in clausal, relative and similar grammatical constructions employing some sort of cohesive device. For example:

(2)   *Only to find that* Tess was faithful, she explain everything to Angel.

An incomplete sentence is formed by the incorrect use of the linking adverbial. Wissing ascribes ESL learners' difficulty with linking adverbials to "the multiplicity of forms of expression available in English" (1987:80). Possible causes he mentions are confusion traceable to the enormous variety of forms of expression catered for by the English language, direct and indirect interference, redundancy and the use of inappropriately formal or archaic English (1987:80). As possible solution, Wissing says that a teacher's chief concern should be to train learners to become aware of the importance of connecting devices as words which link texts into a meaningful whole (1987:96).

Makalela (1998:58) says that BSAE learners have an underdeveloped style of using linking adverbials. One such an underdeveloped style is the repetition of a certain linking adverbial. As a result, reading the text can become tedious and difficult as there are no clear breaks between trains of thought. He also notes that linking adverbials are often used at the beginning of a sentence, which leads to the forming of incomplete sentences (also discussed in previous chapter) because the linking adverbial is often used in conjunction with a subordinate clause. He says that the reason for this problem is that learners' grammar is underdeveloped and that they don't realise that these sentences are complete because they cannot distinguish between main and

subordinate clauses (1998:59). He states that learners often have underlying competence in the language that does not come across in production of a text (1998:73). This indicates that student's writing skills are underdeveloped.

De Klerk and Gough (2002:366) refer to words that act as linking adverbials as "discourse markers". Discourse markers can be defined as a word or phrase that functions primarily as a structuring unit of spoken language. To the listener, a discourse marker signals the speaker's intention to mark a boundary in discourse. Discourse markers are active contributions to the discourse and signal such activities as change in speaker, taking or holding control of the floor, relinquishing control of the floor, or the beginning of a new topic (Ringe, 2004:2). Therefore, although discourse markers serve the same purpose as linking adverbials in terms of providing structure, it does not serve the purpose of establishing inter-clausal or inter-sentence links, but rather inter-sentence boundaries. In short, though De Klerk and Gough (2002:367) cite examples that may be used as linking adverbials, the context the words are used in clearly shows that they are used as discourse markers, for example:

     (3) A. Hello doctor

        B. Hi, Vuyisile. (pause)

        A. *In fact*, I want to talk to you about my essay

        (De Klerk and Gough, 2002:367. Own italics)

In this example, *in fact,* which can be used as linking adverbial, is used to show a boundary between the greeting and the next part of the conversation, serving as a discourse marker, instead of linking the two units of conversation as a linking adverbial does.

Wessels (1994:133) maintains that

> More coherent texts are more "bonded" than less coherent texts, in other words, there are more instances of bonding in a more coherent text, and a greater proportion of the text is bonded.

Bonding, as the term is used by Wessels (1994:129), encompasses three basic features. Firstly, a text is regarded as a product of semantic relations between different sentences. Sentences can be viewed as "interrelated but separate packages of information" (Hoey, as quoted by Wessels, 1994:129). Secondly, lexical cohesion is considered the most important form of cohesion in a text, since it creates multiple relationships within the text (by referring to the text preceding it, the text following it, or text found much earlier or later on in the writing). Lastly, bonding focuses on the most common function of lexical cohesive devices, namely repetition. The bonding described in this research closely relates to the use of linking adverbials. Linking adverbials serve to link sentences. They create multiple relations in a text and also perform the function of repetition and reinforcement. Therefore, Wessels's findings are of great importance for this study. It emphasises the importance of linking adverbials as a cohesive device in academic writing.

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Pretorius (1994:83) states that "The concept of coherence is central to...text comprehension". She also states that it is perceived that linkage, or perceiving connections between text elements, is at the heart of constructing a coherent text. Hubbard (1989) investigates cohesion and coherence in student academic writing and makes use of the term "reference" for words used to create links in a text. He states that reference has a strong effect on cohesion and coherence, and that higher levels of reference ensure more cohesion and coherence in a text (1989:247).

It is obvious that, although the studies done by Makalela (1998), Wissing (1987) and Roodt (1993) did not concentrate on linking adverbials exclusively, they all find that the incorrect use of these words has a detrimental effect on the cohesion and coherence of texts. They are, however, very vague on the exact definition of linking devices and on the subject of how linking devices contributes to the cohesion and coherence of a text.

Taking into account Biber *et al.*'s (2002a) classification of linking adverbials into semantic classes, it becomes easy to see why linking adverbials affect the cohesion and coherence of a text. These words supply the foundation for the logical procession of an argument. If an argument is to be proven at the hand of three crucial points, the linking adverbial will be used in its enumerative form, proving the arguments worth thus:

Firstly: The seedling is planted into the ground.

Secondly: The seedling is watered every day.

Thirdly: The seedling grows to be a tree.

If these linking adverbials are used in the wrong order the argument loses its logic. The argument can only progress a-b-c, and not c-a-b or b-a-c. Rearranging the linking adverbials causes the collapse of logic in the argument. Similarly, the overuse of a linking adverbial can become confusing in a text if used out of context. When a student uses *however* where he means to use *although* the logic collapses. This example is taken from the TLEC:

4. There are a few teams, *although*, that pay their players handsomely, Kaizer Chiefs, Orlando Pirates and Mamelodi Sundowns...<ICLE-TS-NOUN-0088.1>

If we substitute the linking adverbial with another, the result makes no sense:

5. There are a few teams, *however*, that pay their players handsomely, Kaizer Chiefs, Orlando Pirates and Mamelodi Sundowns...

The misuse of linking adverbials has the same effect, as can be demonstrated by these examples taken from the TLEC:

6. If South AFrica can creat more factories and companies we might not be affected by this deseas *hence* to we might find a medicene for this. <ICLE-TS-NOUN-0136.1>

7. Because we want to employ our selves but jobs are nowwhere to be fund thus. <ICLE-TS-KIMC-0361.1>

Pretorius, Wessels and Hubbard also emphasise the connection between the use of linking adverbials and cohesion. In short, the use of linking adverbials, and using a sufficient amount of them in the standard form, contributes to the cohesion of a text. Conversely, the non-standard use or underuse of linking adverbials has a derogatory effect on cohesion.

3.2.2. LINKING DEVICES IN FOREIGN LANGUAGE STUDENT WRITING

Granger and Tyson (1996:17-27) and Tankó (2004) investigate the use of connectors in English as foreign language. Their research shows how the incorrect use of connectors has a detrimental effect on the coherence and the cohesion of a text and applies this to student argumentative writing in particular by using a corpus of EFL. The international trend seems to be corpus-based studies investigating the misuse, overuse and underuse of linking adverbials in student academic writing. In reference to Table 1, these connectors are represented as follows:

TABLE 2: Linking adverbials that have been investigated in foreign language student writing

Granger & Tyson (1996) "Connectors"	Tankó (2004) "Adverbial connectors"
However	However
Instead	
Though	
Yet	Yet
Hence	

e.g.	
Therefore	Therefore
Thus	Thus
Then	
So	So
Although	
	Of course
	In fact
	That is
	So
	Indeed

Granger and Tyson (1996) state that the problem with linking adverbials in EFL student writing is transfer related. Since teachers overuse some linking adverbials, students also overuse the same linking adverbials in their writing (1996:19). Another problem is the direct translation of linking adverbials from the mother tongue and using it in the capacity in English as it would be used in the mother tongue. For example, in French *au contraire* can express concessive and antithetic links, where in English in can express only an antithetic link (1996:23). The overuse of the linking adverbial *so* seems to be a primary concern for the researchers. It is used with a high frequency in academic writing. Granger and Tyson attribute this to a lack of emphasis on matters of style, especially a distinction between spoken and written English. They also state that there is a distinct lack of description of connector usage in dictionaries (1996:23). As possible solutions they suggest that more intensive corpus research be done to ascertain the reach of transfer in second language acquisition. They also note that teachers should concentrate on

teaching cohesion devices early on, as this will help students to express relations more clearly.

Tankó (2004) studies the use of linking adverbials in the argumentative essays of Hungarian university students, another corpus-based study. He asks the question: why are connectors difficult (for learners to master)? The problem, according to Tankó (2004), is rooted in their discourse-organising function, grammatical, semantic and morphological attributes, and also in the techniques employed tot teach these devices. Linking adverbials can be used to connect clauses, paragraphs or longer stretches of texts. He stresses the importance of linking adverbials in the production of texts of good quality and asserts that learners should be taught their appropriate use. He agrees with McCarthy (1991:50) that L2 learner's output data may seem unnatural because they cannot employ a variety of appropriate connectors in order to express cognitive relations. This decreases the comprehensibility of their texts. Furthermore he mentions that these EFL students overuse linking adverbials that mark structural features in a text and most often indicate the relationship between consecutive sentences and sections of paragraph. He concludes that linking adverbials, when misused, overused or underused, mar the logical procession, and thus the coherence, of an argumentative text. For possible solutions he suggests that learners first need to

> familiarize themselves with the meaning of the different connectors, the type of components they normally occur with in discourse, and finally the distance they can span in order to be able to identify the type and expanse of relation they indicate
>
> (Tankó, 2004).

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The global trend, therefore, seems to be to do corpus-based studies of linking adverbials in academic student writing in order to describe misuse, overuse and underuse and in order to supply possible solution to the problem. There is also a trend to ascribe the problem to transfer and that the misuse of linking adverbials has a negative effect on the cohesion and coherence of a text.

3.3.   COHESION AND COHERENCE IN STUDENT ACADEMIC WRITING.

Why is cohesion and coherence so important in academic writing? Researchers such as De Beaugrande and Dressler (1988), Halliday and Hasan (1976) as well as Schiffrin (1987) state that, without coherence and cohesion, there can be no meaningful discourse. Patricio says that "[A] lack of cohesion and coherence in pupil's writing ... causes problems in communication" (1993:2), in other words, the way in which they communicate meaning in a text to the reader. She states further that pupils' compositions regularly show a lack of logical correlation and sequence – the two factors that cause a text to "make sense" (1993:2). Cook (1989:127) says:

> Cohesion has often been neglected in language teaching, where sentences have been created, manipulated and assessed in isolation.

When sentences are seen in isolation the context can often be neglected and, as discussed in chapter 2, the cohesiveness and coherence of a text can be lost.

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Chiang (2003:471) gives the following reasons why cohesion and coherence are important in academic writing:

- A study done under literature lecturers prove that they judge overall quality of academic writing primarily on either of the two discourse features: coherence and cohesion.

- Regression analyses showed that these lecturers indicated that cohesion was the best predictor of writing quality of all the four areas of evaluation, namely coherence, cohesion, syntax, and morphology.

- Cohesion, "transition between sentences in the absence of junction words", was found to be the best predictor of writing quality regarding analytical features.

Lee (2002:135) suggests that at the end of the explicit teaching of cohesive devices (linking adverbials), students improved the coherence of their writing and directed their attention to the discourse level of texts while revising. They also felt that the teaching of coherence had enhanced their awareness of what effective writing should entail.

Pretorius' (1993) research on cohesion and coherence in student writing yielded several noteworthy results. She states that L2 English users make "significantly more... cohesion errors than the first-language users", and that the BSAE speakers made much more mistakes than Afrikaans speakers of L2 English. She also finds that there is a strong positive relationship between the "level of coherence of the student academic text and academic achievement". The latter point is particularly interesting, as it seems to indicate that either too little attention is given to writing skills at primary and secondary level, or that

the teachers do not possess the skills to convey cohesive devices to the learners. Her main finding, however, is that cohesion and coherence play a large role in the readability and ease of understanding of a text, and that students at tertiary level are not sufficiently equipped to use cohesive and coherent devices to improve these factors (Pretorius, 1993:238-268).

From the above-mentioned studies it becomes clear that concentrating on cohesion and coherence in class is profitable for both learners and teachers. Learners not only learn how to write more cohesive and coherent texts, but also understand what cohesive and coherent texts are. Teachers benefit by reading texts that are logical, well structured and sensical. Learning this early on has the added benefit of laying an early foundation for academic writing, which, without cohesion and coherence becomes "non-sensical gibberish" that is hard to read and even harder to understand (Gutwinski, 1976:38).

3.4. SYNTHESIS

Both the South African and international scholars are concerned with the misuse of linking adverbials and the influence it has on the cohesion and coherence of a text. In my opinion, it is also important to look at overuse and underuse of linking adverbials. When one or more linking adverbials are overused, other linking adverbials will be underused. Both groups look at academic student writing, either by studying essays or corpora. This study will employ the use of corpora as a comparative corpus study will yield valuable information regarding linking adverbial use in ENL, ESL and EFL

student writing. Issues of transfer related problems, misuse, overuse and underuse will be addressed as they are voiced in the South African and international contexts.

3.5. CONCLUSION

It is clear from preliminary data that linking adverbials are a field that has not been studied exhaustively. Previous research done in the field of linking adverbials have noted the link between linking adverbials and cohesion, but haven't truly looked at the cause and effects of the misuse, overuse or underuse of linking adverbials and its effects on coherence and cohesion. While those studying coherence and cohesion acknowledges the role of linking adverbials in establishing coherence and cohesion, an in-depth study in this field is still lacking. This study will aim to, in part, bridge these gaps. This also makes this part of speech an ideal subject for study, as new information may be gleaned which could shed light on textual coherence and cohesion in ENL, ESL and EFL writing. Prior research done by other researchers also shows that this is a valid study, because there is reason to believe that the use of linking adverbials does affect the cohesion and coherence of texts.

CHAPTER 4

METHODOLOGY OF DATA COLLECTION AND ANALYSIS

4.1. INTRODUCTION

In the previous chapters an overview of the literature and of previous research done on linking adverbials were provided. The next step would be to investigate the use of linking adverbials in ENL, ESL and EFL student writing. However, before that can be done, the methodology of the data collection and data analysis needs to be discussed. As mentioned in chapter 1, there are two possible routes to follow here – the one a manual, corpus-driven approach, and the other an automatic, almost corpus-based approach. Regardless of the process chosen, the next step is to analyse the examples of linking adverbials in order to determine whether the linking adverbials are used in a Standard English way or not. When this has been done, theories regarding the deviant uses need to be postulated.

The list provided by Halliday (2004) will be used as basis for the analysis. Biber *et al.*'s (2002b) list of frequent linking adverbials in academic writing, fiction and news and will be used as reference and will be used as a supplement for the tagset. The basis for this part of this study is already established in chapter 2. Since this study needs to look at the largest possible amount of linking adverbials, not only the list of linking adverbials in academic writing was used. All examples cited from Biber *et al.*(2002a), as well as examples from Halliday and Matthiesen (2004) and examples from the corpus

are used. Results must also be given in numerical form to draw conclusions from. The results must then be traced back to the literature, as discussed in chapter 3, in order to fully explain the cause and effect of incorrect linking adverbials usage. In this chapter these methods will be presented and explicated.

4.2. GENERAL APPROACH

4.2.1. GENERAL APPROACH TO DATA COLLECTION

As mentioned earlier, two possible routes are available in order to investigate linking adverbials. The first is a corpus-driven or manual approach. This implies manually collecting samples from each corpus and then manually tagging the samples. The tagset will be based on lists of linking adverbials provided by Biber *et al.* (2002a) and Halliday and Matthiesen (2004). The other possibility is an automatic and almost corpus-based approach, where the linking adverbials from Biber *et al*'s (2002a) and Halliday and Matthiesen's (2004) lists are read into a concordancer program like WordSmith to do a word search or a concordance search. In this way all examples of the search word will be found. Both of these methods have their own pros and cons. Using a manual, corpus-driven method will ensure accurate results, but will be time-consuming. Using an automatic, corpus-based approach will save time, but won't yield results that are as accurate. The question is which of these two methods will provide the highest level of precision and recall, two very important aspects in any study.

The data extraction of this study can be considered as an information retrieval task. Information retrieval is described as "a wide, often loosely-defined term" concerned with the retrieval of information from a system. It

> ...does not inform (i.e. change the knowledge of) the user on the subject of his inquiry. It merely informs on the existence (or non-existence) and whereabouts of documents relating to his request

(Van Rijsbergen:1979:1)

This is clearly what the data analysis is concerned with: to find all possible examples of linking adverbial usage in each corpus. According to Van Rijsbergen (1979:10), **precision** can be defined as the proportion of retrieved documents that are relevant, whereas **recall** is the proportion of relevant documents retrieved. The effectiveness of information retrieval, Van Rijsbergen goes on to say, is measured in precision and recall. Therefore, the higher the rate of precision and recall, the more effective the information retrieval will be.

In terms of this study, a higher rate of precision and recall assures an optimal amount of linking adverbial usage examples. Thus it is critical for the data analysis that the method chosen ensured optimal precision and recall. In order to achieve optimal precision, samples, and not the entire corpus, are tagged for linking adverbials. For optimal recall long lists of linking adverbials are compiled and used to create a tagset, which will be used to tag the data.

Taking the above statements into account, it becomes clear that in order to study linking adverbials effectively in student academic writing, it is imperative that the data be analysed manually. While tools like WordSmith are available to do concordance and word searches with, it has certain shortcomings that make it difficult to use. One such a problem occurs when one is, for example, using an ESL corpus, the TLEC. Because of numerous spelling errors in the student writing, a problem discussed by Van Rooy (2005), WordSmith will not supply each and every example of the word one wishes to investigate. One would then have to do searches on all possible spellings of the word, and sometimes words are spelt in such a way that one cannot imagine all possible spellings of the word. Another problem is that students may innovate – they may use certain elements as linking adverbials that the literature doesn't recognise as linking adverbials, or they may use linking adverbials that occur in such low frequencies that they do not occur on the lists of Biber *et al.* (2002a) and Halliday and Matthiesen (2004). Furthermore, links between sentences aren't always implicitly marked. Since this study aims to see how coherence and cohesion are influenced by the use of linking adverbials, it is also necessary to investigate how links between sentences are implicitly marked, or not. These are things that an concordancer like WordSmith cannot do. The most sensible option is therefore a corpus-driven manual analysis of the data. As a control measure, a corpus-based automatic approach will be used as a quality control device.

Analysing 200,000 words manually is an almost impossible task, and too big a sample restricts the precision and recall of the analysis. Therefore, two

samples of 20 000 words each will be selected at random from each corpus. These samples then will be manually tagged using the Free Hand Annotator, developed in 2004 by Elmar Henning and Johan Badenhorst. This tool enables one to develop a tagset and import it into the annotator. The texts are then copied into a text file and loaded into Free Hand. One can then read the text in Free Hand and insert tags in the relevant positions.

Finally, the words from the tagset will be run through WordSmith against the entire corpus. Therefore, the approach of this study is to start out with a corpus-driven manual analysis. As a method of quality control, and to test the entire corpus against the tagset, a corpus-based automatic word search will be done with WordSmith.

4.2.2. SELECTION OF SAMPLES

In order to make sure that each 20 000 word sample from each corpus consists of truly randomly selected essays, a random number was chosen. The first random number chosen was one. The data selection would, therefore, start at the first essay of each corpus. To obtain a 20 000 word sample every tenth essay is used until the target of 20 000 words has been reached. These numbers were relevant for the first 20 000 word sample from each corpus. For the second sample the data selection started at the seventh essay, after which every tenth essay was chosen until the target of 20 000 words was reached.

4.2.3. DEVELOPMENT OF THE TAGSET

As has been mentioned in the previous chapter, Biber *et al.* (2002a) provide a list of linking adverbials divided into seven categories, namely enumeration and addition, summation, apposition, result or inference, contrast or concession, and transition. Keeping in mind that one wants the tagging to be a specific as possible, these categories seem too broad. Therefore Halliday's (2004) list of linking adverbials was also considered in the tagset development. Both Halliday and Biber *et al.*'s lists are discussed in detail in chapter 2. Because the categories show great similarities in terms of the same linking adverbials occurring in the categories, it was decided that Halliday's categories would be used to develop the tagset, while examples from Biber *et al.* would be included and divided into the suitable Hallidayan category. Additional examples from the corpora will be included as the tagging proceeds. The final tagset looks as follows:

Table 1: Tagset.

Linking adverbial type	Tag	Examples
ELABORATING		
Appositive expository	<ELAEXP>	in other words, that is, I mean,
		that is to say, specifically, namely,
		to put it another way, which is to say
		in this way, I would say
Appositive exemplifying	<ELAEXM>	for example, for instance, to illustrate,
		i.e., such as
Clarifying corrective	<ELCCOR>	or rather, at least, to be more precise
Clarifying distractive	<ELCDST>	by the way, incidentally
Clarifying dismissive	<ELCDSM>	in any case, anyway, leaving that aside,
		still, in any case, at any rate, in spite of,
		besides, though, nevertheless,
		after all, although
Clarifying particularizing	<ELCPRT>	in particular, more especially, a perfect
		example of
Clarifying resumptive	<ELCRES>	to resume, as I was saying
Clarifying summative	<ELCSUM>	in short, briefly, to sum up, to summarize,
		in conclusion, overall, in closing
		in sum, to conclude
Clarifying verificative	<ELCVER>	actually, verificative
EXTENDING		
Additive positive	<EXAPOS>	and, also, furthermore, moreover,
		likewise, to begin with, for one thing,
		by the same token, in addition, similarly,
		for another thing, again
Additive negative	<EXANEG>	nor
Adversative	<EXADVT>	but, yet, on the other hand, however,
		on the contrary, instead,
		but then again
Varying replacive	<EXVRPL>	this, these, those
Varying subtractive	<EXVSUB>	apart from that, except for that
Varying alternative	<EXVALT>	or (else), alternatively
ENHANCING		
Matter positive	<ENMPOS>	here, there, as to that, in that
		respect, in this way
Matter negative	<ENMNEG>	in other respects, elsewhere
Manner comparative	<ENMCMP>	likewise, similarly, in a different way,
		way, as I pointed out before,
		in this way, unlike
Manner means	<ENMMNS>	in the same manner
Spatio-temporal simple	<ENSTFS>	then, next, just then, here, now,
		the following
Spatio-temporal simple	<ENSTPC>	previously, finally, up to now,
		lastly, first, second, third, firstly
preceding conclusive		secondly, thirdly, first of all, in the
		first place, until then, eventually
Spatio-temporal complex immediate	<ENSTCM>	at once, thereupon
Spatio-temporal complex interrupted	<ENSTCI>	soon, after a while, while
Spatio-temporal complex repetitive	<ENSTCR>	next time

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Spatio-temporal complex specific	<ENSTCS>	next day, that morning
Spatio-temporal complex durative	<ENSTCD>	meanwhile, at that time
Spatio-temporal complex terminal	<ENSTCT>	until then, in the meantime
Spatio-temporal complex punctiliar	<ENSTCP>	at this moment, at this point
causal-conditional causal general	<ENCCCG>	so, them therefore, hence, thus
causal-conditional causal specific result	<ENCCSR>	as a result, (so), because of,
		thanks to, due to
causal-conditional causal specific reason	<ENCCSN>	on account of this, because of this,
		the reason why I say this, in that way,
		the reason why, all this thinking
causal-conditional causal specific purpose	<ENCCSP>	for that purpose
causal-conditional conditional positive	<ENCCCP>	then, in that case
causal-conditional conditional negative	<ENCCCN>	otherwise, if not
causal-conditional conditional concessive	<ENCCCC>	yet, still, though nevertheless

However, these tags are very clumsy. Inserting these tags into a text will make the text very difficult to read. This makes the data analysis a very long, laborious task and may have a detrimental effect on the precision of the study. Therefore, it was decided that a set of labels should be developed to use in the data annotation. These labels have been assigned numerical values in order to make the classification easier. Another consideration was to keep the labels as simple as possible so that they would not hinder the reading of the annotated samples as much as the tags. The following table shows the labels used in the annotation.

Table 2: Labels.

Linking adverbial type	Label	Examples
ELABORATING		
Appositive expository	<1>	in other words, that is, I mean,
		that is to say, specifically, namely,
		to put it another way, which is to say
		in this way, I would say
Appositive exemplifying	<2>	for example, for instance, to illustrate,
		i.e., such as
Clarifying corrective	<3>	or rather, at least, to be more precise
Clarifying distractive	<4>	by the way, incidentally
Clarifying dismissive	<5>	in any case, anyway, leaving that aside,

| | | still, in any case, at any rate, in spite of, |
		besides, though, nevertheless,
		after all, although
Clarifying particularizing	<6>	in particular, more especially, a perfect
		example of
Clarifying resumptive	<7>	to resume, as I was saying
Clarifying summative	<8>	in short, briefly, to sum up, to summarize,
		in conclusion, overall, in closing
		in sum, to conclude
Clarifying verificative	<9>	actually, verificative
EXTENDING		
Additive positive	<10>	and, also, furthermore, moreover,
		likewise, to begin with, for one thing,
		by the same token, in addition, similarly,
		for another thing, again
Additive negative	<11>	Nor
Adversative	<12>	but, yet, on the other hand, however,
		on the contrary, instead,
		but then again
Varying replacive	<13>	this, these, those
Varying subtractive	<14>	apart from that, except for that
Varying alternative	<15>	or (else), alternatively
ENHANCING		
Matter positive	<16>	here, there, as to that, in that
		respect, in this way
Matter negative	<17>	in other respects, elsewhere
Manner comparative	<18>	likewise, similarly, in a different way,
		way, as I pointed out before,
		in this way, unlike
Manner means	<19>	in the same manner
Spatio-temporal simple	<20>	then, next, just then, here, now,
		the following
Spatio-temporal simple	<21>	previously, finally, up to now,
		lastly, first, second, third, firstly
preceding conclusive		secondly, thirdly, first of all, in the
		first place, until then, eventually
Spatio-temporal complex immediate	<22>	at once, thereupon
Spatio-temporal complex interrupted	<23>	soon, after a while, while
Spatio-temporal complex repetitive	<24>	next time
Spatio-temporal complex specific	<25>	next day, that morning
Spatio-temporal complex durative	<26>	meanwhile, at that time
Spatio-temporal complex terminal	<27>	until then, in the meantime
Spatio-temporal complex punctiliar	<28>	at this moment, at this point
causal-conditional causal general	<29>	so, then, therefore, hence, thus
causal-conditional causal specific result	<30>	as a result, (so), because of,
		thanks to, due to
causal-conditional causal specific reason	<31>	on account of this, because of this,
		the reason why I say this, in that way,
		the reason why, all this thinking
causal-conditional causal specific purpose	<32>	for that purpose
causal-conditional conditional positive	<33>	then, in that case

| causal-conditional conditional negative | <34> | otherwise, if not |
| causal-conditional conditional concessive | <35> | yet, still, though nevertheless |

Several borderline cases also had to be considered. These are words that may be used as linking adverbials, but don't always occur as linking adverbials. These are the words *because, and* and *but*. It was decided that these words serve the purpose of linking adverbials only in a sentence initial position. Therefore, they will only be tagged as linking adverbials if they are found in this position.

4.2.4. ANNOTATING THE DATA

As has been mentioned earlier in this chapter, the data was annotated using the Free Hand Annotator. The set of labels developed for this study was imported into this tool. The selected essays from each corpus that formed the 20 000 word sample was then saved in a text (.txt) file and loaded into the program. Once loaded, along with the imported tagset, the tagging can commence. It looks as follows:

Figure 1: Tagging using Free Hand Annotator
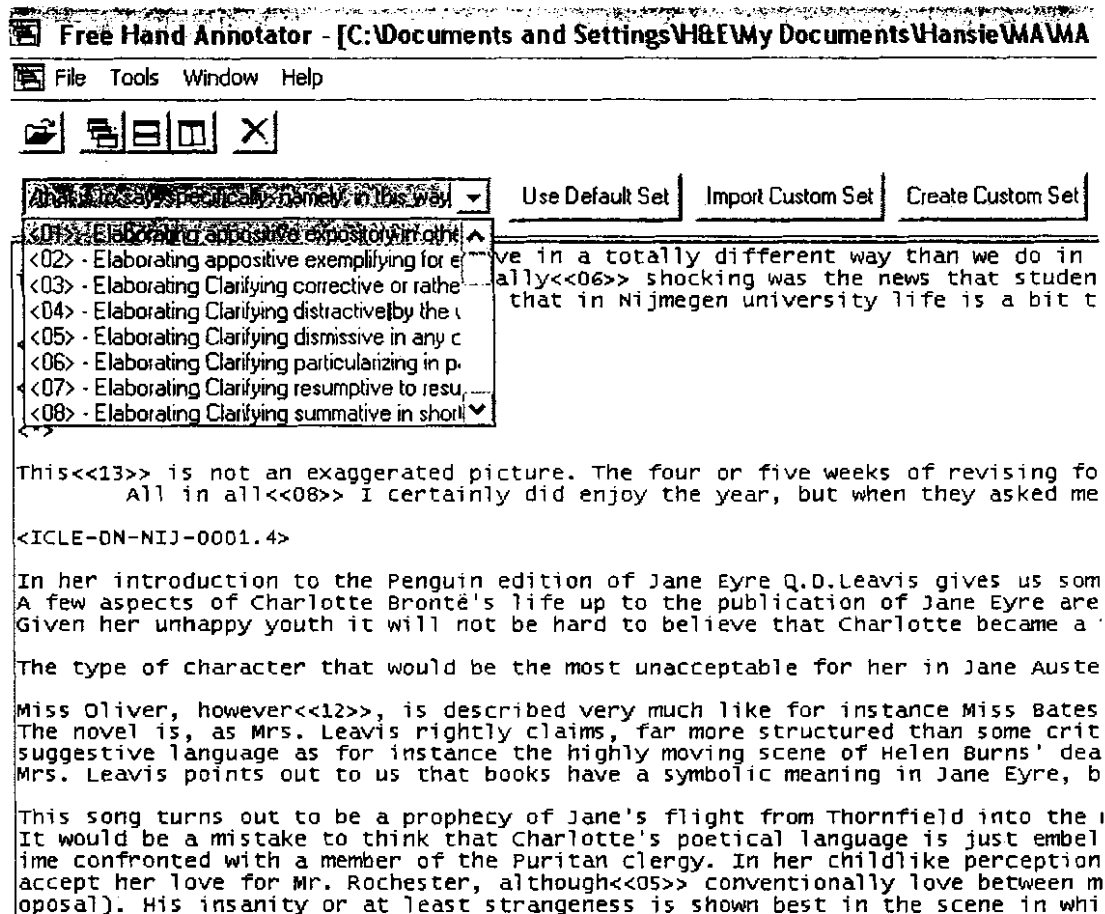
Once the data has been tagged, the output looks like this:

First of all<<21>>, television is an important source of information.

We all want to be able to join a conversation and therefore<<29>> it

may be necessary to know something about current events. Watching

the six o'clock news is of course much easier than spending the whole

morning reading the last edition of the Times. Besides<<05>>,

television news semms to be a more reliable source, we saw it with

our very eyes, did we not? Therefore<<29>> many people prefer to

keep up to date by means of their television sets. Secondly<<21>>, a

great deal of spectators see television as a social event. They claim

that it brings the family together and that it is the cosiest way to

pass the evening; father, mother and children all watching the same

programme and commenting upon it. The next day you can also talk about it with your colleagues at work, it is a popular subject, like the weather.

Once the data is labelled, the number of labels from each category will be counted. In order to achieve this, and once again to be as accurate as possible, the counting was done in two ways. Firstly, the annotated texts are loaded into WordSmith and searches are done for the specific labels in order to determine the number of tags. Secondly, a Perl script was written to count the labels. This triangulation is extremely important to obtain accurate counts in order to ensure that the results are as precise as possible.

4.3. SPECIFIC ANALYSIS

4.3.1. SAMPLE ANALYSIS

The bulk of the data analysis consists of the sample analysis – in other words, the analysis of the six 20 000 word samples, two from each corpus. As has been explained, the samples have been manually selected. Each sample was then saved as a text file and loaded into the Free Hand Annotator and the set of labels imported. The next step was to read each essay and identify, line by line, all of the linking adverbials in the essay, and so in the entire sample.

Once this was completed with each 20 000 word sample, the labels were counted and entered into a spreadsheet to make it easy to compare.

4.3.2. DETAIL ANALYSIS

As has been stressed many times in this chapter, data triangulation, accuracy and precision are some of the most important aspects of data analysis. In the same way, quality control is very important to ensure that the annotation proceeded correctly and accurately. In order to ensure this, a control sample of 2 000 words was chosen from each corpus and a detail analysis was done. This entailed reading each essay and marking linking adverbials by hand. Once the linking adverbials were identified, they were classified into the categories of the tagset. Comparing the data from the detail analysis with the data from the 20 000 word sample analysis showed more or less the same results on a smaller scale. The detail analysis was, therefore, firstly a measuring tool for the effectiveness of the larger samples. Secondly, the detail analysis was a method of quality control, to make sure that the linking adverbials were accurately tagged. This is important as it ensures accurate and reliable results.

4.3.3. CLASSIFICATION OF ERRORS

In order to classify the errors in the student writing, two methods need to be used. The first is to broadly classify errors into one of three categories, namely:

1. Omission – in a sentence or place in a sentence where linking adverbials is expected to be found. This category can further be subdivided into two categories, namely:

    a. Unmarked but clear – where a linking adverbial is omitted, but the implied link is still clear to the reader.

    b. Unmarked and misleading – where the linking adverbial is omitted and the omission causes a breakdown in coherence or cohesion.

2. Superfluous – if two linking adverbials connoting the same meaning are used when one would do, causing an illogical sentence that may mislead the reader.

3. Logically misleading – where the use of linking adverbials cause the sentence to become illogical or difficult to read. This category can also be subdivided into two categories:

    a. Cohesive errors - where the order of linking adverbials is inverted or reversed (for example, first, third, second instead of first, second, third).

    b. Semantic errors – where that which follows the linking adverbial is not what should follow it, for example using "To summarise" and no summary follows.

However, one cannot use the same method to identify all of these examples of errors. Errors of omission can only be marked by carefully reading through each essay and marking the places where a linking adverbial should be found, and determining whether the omission is misleading or not. The other errors

can be found by doing word searches or concordance searches on the tagged data. It is also important to mark where linking adverbials are used correctly and links are clearly indicated in order to see whether the errors or the correct uses occur more frequently. In order to mark these errors, a Hallidayan approach was followed. Halliday and Matthiesen (2004) uses a set of symbols to denote certain structures when doing a textual analysis. In the same vein, a set of symbols was chosen to denote the errors in the categories above.

Table 3: Error categories

Symbol	Description
-1a	Category 3a – logically misleading cohesive errors
-1b	Category 3b – logically misleading semantic errors
0	Category 1a– unmarked but clear
X	Category 1b – unmarked and misleading
1	Marked correctly
2	Category 2 – superfluous.

It is important to note that not all of these categories refer to errors. Category 1a refers to the use of linking adverbials where a linking adverbial is not explicitly used, but the meaning is still clear. This is obviously not an error, but is included in the categories to make error identification easier. The same goes for symbol 1, where linking adverbials are marked correctly. It is important to mark where linking adverbials are marked correctly in order to compare these uses to those marked as errors. Therefore, symbols 1a and 0 are not error categories, but rather mark-up categories to simplify the analysis later on.

The error classification is presented in the next chapter and will shed light on the typical errors made by learners in the various corpora.

The information gleaned from the Correspondence analysis in the next chapter will show which linking adverbials and which semantic categories are characteristic of each corpus and which are are either misused, overused or underused. This data will not only make it possible to ascertain which linking adverbials are overused, misused or underused, but also make it possible to establish which semantic categories of linking adverbials are misused, overused and underused. This is a very important distinction. There is a big difference between the disproportionate use of words and the disproportionate use of semantic categories. The first is a simple vocabulary exercise that can easily be righted, while the latter is a more complicated conceptual or style problem. The statistical data will shed light on which of these problems, if not both, need to be addressed.

4.4. CONCLUSION

In the next chapter, the data analysis will be represented. This will serve as a discussion for findings, results and recommendation on possible syllabus alterations and further research. The data analysis and representation will serve as a concrete basis for the further explication and recommendation done later in the study.

CHAPTER 5

ANALYSIS OF DATA

5.1. INTRODUCTION

The data being gathered, it is neccesary to analyse the data to show how the data is significant and what we can learn from the data. A qualitative and a quantitative analysis need to be done as interpretations cannot be done on statistical data alone. Qualitative analyses need to be done to see how linking adverbial usage influences cohesion and coherence in a text. Once the data analysis has been done it is important to look at the numerical results from this analysis in order to draw conclusions and make recommendations about the data. These discussions will serve to show the similarities and differences between the distribution of linking adverbials in the various corpora as well as those semantic categories most characteristically used in each corpus. This chapter will present the numerical data gleaned from the data analysis and will provide a comprehensive analysis of the data. This will be done by, firstly, presenting the raw frequencies from sample analysis, and then by explaining the characteristics of linking adverbial usage and often referring back to the literature survey throughout to explain or substantiate the presentation of the data. The conclusions and discussion of findings will only be presented in chapter 6.

5.2. RAW FREQUENCIES FROM SAMPLE ANALYSIS

5.2.1. INTRODUCTION

As has been explained in previous chapters, linking adverbials in each corpus sample have been counted by various means. The task now lies in looking for patterns in the numerical data that may be significant for the study. Explanations for the linking adverbial usage cannot be done by looking at the numerical values only, as this may render incorrect or false conclusions. Therefore, a technique called correspondence analysis was used. Correspondence analysis is a descriptive and exploratory technique designed to analyse simple two-way and multi-way tables containing some measure of correspondence between the rows and columns. This method allows one to explore the structure of categorical variables included in the table. The goal of a typical analysis is to represent the entries in the table of relative frequencies in terms of the distances between individual rows and/or columns in a low-dimensional space (Hill & Lewicki, 2006:2). To fully understand this method, the basic terminology used in this analysis needs to be explained.

- **Mass.** In the terminology of correspondence analysis, the row and column totals of the matrix of relative frequencies are called the row mass and column mass, respectively.

- **Inertia.** The term inertia in correspondence analysis is used in analogy with the definition in applied mathematics of "moment of inertia". Inertia

is defined as the total chi-square for the two-way table divided by the total sum.

- **Inertia and row and column profiles.** If the rows and columns in a table are completely independent of each other, the entries in the table (distribution of mass) can be reproduced from the row and column totals alone, or row and column profiles in the terminology of correspondence analysis. According to the well-known formula for computing the *chi-square* statistic for two-way tables, the expected frequencies in a table, where the column and rows are independent of each other, are equal to the respective column total times the row total, divided by the grand total. Any deviations from the expected values (expected under the hypothesis of complete independence of the row and column variables) will contribute to the overall *chi-square* (Hill & Lewicki, 2006:2-3).

Therefore, another way of looking at correspondence analysis is to consider it a method for decomposing the overall chi-square statistic (or inertia) by identifying a small number of dimensions in which the deviations from the expected values can be represented. As this study deals with comparing tabulated data from various resources, correspondence analysis is an ideal method to use for analysing the data.

Correspondence analysis was used firstly to find the distribution of linking adverbials between the sample totals of the three corpora, and then between the different semantic categories of the linking adverbials. It calculates the chi-square (χ^2) value, taking into account the degrees of freedom (*df*) and the

p-value. Generally, a p-value probability of 0,05 or less is considered to be a significant difference.

5.2.2. COMPARISON OF TWO SAMPLES FROM THE THREE CORPORA

As noted in the previous chapter, two samples from each corpus was analysed to get comparative data for the corpora. The purpose of the statistical analysis is to see if the two samples from each corpus are similar or different and also to ascertain whether two different corpora show similarities or differences in terms of distribution and frequently used lexical items.

TABLE 1: Correspondence Analysis of samples per corpus

Corpus	Chi-square	df	p
LOCNESS	1.27915	7	0.989
TLEC	0.419806	7	0.9997
DLE	1.18471	7	0.9913

Since the p-value here is 0,9 and more, and the chi-square value is less than 2, it can be said that there is very little difference between the two samples from each corpus. In fact, one can even go so far as to say that the two samples from each corpus are virtually indistinguishable.

These numbers clearly show that there is almost no difference between the totals of the samples. In the light of these numbers it can be assumed that there is more than a 95% chance that the samples have been selected at random and that there is very little difference between the numerical values assigned to the linking adverbials in each corpus. Furthermore, from these

numbers it becomes clear that linking adverbials are used consistently in both samples. The same sets of linking adverbials are used with more or less the same frequency in both samples from each corpus. To be more specific: the use of linking adverbials in sample one from the Locness is almost identical to the use of linking adverbials in sample two from the Locness; the use of linking adverbials in sample one from the TLE is almost identical to the use of linking adverbials in sample two from the TLE, and the use of linking adverbials in sample one from the DLE is almost identical to the use of linking adverbials in sample two from the DLE. This means that the samples are representative of the corpora. This data then serves to prove that the sampling has been successful and that stable results have already been achieved on a 10% sample.

Henceforth, the two separate samples from each corpus will be combined into a single sample per corpus to facilitate ease of presentation.

5.2.3. SEMANTIC CATEGORIES AND LEXICAL ITEMS

As mentioned in the previous chapter, each of the two 20 000 word samples from the different corpora was tagged manually. The first step was to count the different tags so as to ascertain how many of each individual tag showed up in each sample. In this section, each of the raw frequency tables will be presented and discussed.

TABLE 2: Sample totals for all three corpora

	LOCNESS	TLEC	DLE
ELABORATING			
Appositive expository	20	2	22
Appositive exemplifying	64	30	26
Clarifying corrective	4	0	4
Clarifying distractive	4	0	3
Clarifying dismissive	60	0	36
Clarifying particularising	60	15	26
Clarifying resumptive	0	2	1
Clarifying summative	27	2	23
Clarifying verificative	12	6	15
ELABORATING TOTAL	251	57	156
EXTENDING			
Additive positive	200	84	95
Additive negative	0	0	1
Adversative	252	19	159
Varying replacive	333	101	112
Varying subtractive	2	0	1
Varying alternative	0	2	0
EXTENDING TOTAL	787	206	368
ENHANCING			
Matter positive	28	2	16
Matter negative	0	0	0
Manner comparative	29	0	4
Manner means	5	0	3
ENHANCING MANNER TOTAL	62	2	27
spatio-temporal simple following simultaneous	20	9	8
spatio-temporal simple preceding conclusive	122	10	88
SPATIO-TEMPORAL SIMPLE TOTAL	142	19	96
spatio-temporal complex immediate	0	0	0
spatio-temporal complex interrupted	10	4	8
spatio-temporal complex repetitive	0	0	0
spatio-temporal complex specific	0	0	0
spatio-temporal complex durative	6	0	3
spatio-temporal complex terminal	0	0	0
spatio-temporal complex punctiliar	1	2	0
SPATIO-TEMPORAL COMPLEX TOTAL	19	6	11
causal-conditional causal general	127	37	79
CAUSAL-CONDITIONAL GENERAL TOTAL	127	37	79
causal-conditional causal specific result	25	74	21
causal-conditional causal specific reason	38	41	8
causal-conditional causal specific purpose	0	0	0
CAUSAL-CONDITIONAL SPECIFIC TOTAL	77	115	29
causal-conditional conditional positive	1	5	3

causal-conditional conditional negative	0	0	0
causal-conditional conditional concessive	43	44	31
CAUSAL-CONDITIONAL CONDITIONAL TOTAL	45	49	34
TOTAL	1510	491	800

It is important to notice the major difference between the TLE and the other two corpora for the linking adverbial categories of Elaborating clarifying corrective, clarifying distractive, clarifying dismissive, clarifying particularising, clarifying resumptive, clarifying summative and clarifying verficative. For the most part the TLE shows high uses of these categories where the other two corpora show much lower and dismissive uses of these categories.

It is important to note, at this point, that high frequencies of linking adverbials in academic writing are not unusual. Biber *et al.* (2002a:887) shows that linking adverbials in academic writing is not uncommon. To see which lexical items occur most frequently in academic writing, WordSmith Tools was used to determine the linking adverbials that occur most in each corpus. A wordlist was compiled from each corpus and the frequency wordlist consulted. The results were then checked by doing a word search to see whether each instance of the word use is indeed a linking adverbial. The following table was compiled from the results.

TABLE 3: Most frequent linking adverbials per corpora

	LOCNESS	TLEC	DLE
1	Also	Also	Also
2	First of all	Because of	First
3	However	Because	For example
4	Therefore	Especially	Therefore
5	Although	As a result	However
6	Though	Since	Especially
7	Yet	Though	Although
8	Secondly	However	Because
9	Actually	Hence	Though
10	In conclusion	Firstly	Secondly
11	As a result	Thus	Yet
12	Furthermore	And	In conclusion
13	Hence	Although	As a result
14	Firstly	Secondly	For instance
15	To summarise	Therefore	Hence

Note that "Because of" in the TLEC is usually a preposition, but as is explained in chapter 5, some exceptions are accepted as linking adverbials, for example "Because of" at the beginning of a sentence. These are the examples from the TLEC included in this study. The same applies to "And" in the TLEC.

The following are examples from each corpus to illustrate how these most frequent linking adverbials are used in the corpora.

In Locness:

(1) If you go to Joan of Arc or if you go on the other side of Laulumiere Hall you see a very large area of grass and trees. *Also* if you go to the AMU or if you visit some of the dorms, there is greenspace. <ICLE-US-MRQ-0031.1>

(2) *First of all*, states or countries that had the death

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penalty and recently abolished it have experienced a drop in their crime

rates. <ICLE-US-MRQ-0011.1>

(3) *However,* critics of capital punishment cite statistics that show several

constitutional errors in death penalty cases. Time magazine reported that, <*>

<ICLE-US-MRQ-0011.1>

(4) *Therefore,* it would be difficult to control what goes on in the barracks.

<ICLE-US-MRQ-0013.1>

(5) *Although* there is some connection between the rise in crimes

and the lack of prayer in public schools, the factor is too minute to be

accounted for... <ICLE-US-MRQ-0018.1>

(6) *Though* the story of Tommy is a conjecture, it could be coming true for

some Jane or John in school this very day. <ICLE-US-MRQ-0038.1>

(7) ...and pregnancy cases among teenagers would decrease. *Yet,*

proponents have used illogical reasoning, if not fallacies... <ICLE-US-MRQ-

0042>

(8) ...and whether he feels that this is the type of nochalant behaviour

expected from the Party. *Secondly,* due to the confessions which Hugo makes

at the end of the play, revealing that he cannot determine whether... <ICLE-

BR-SUR-0014.1>

(9) *Actually,* he asked for the job to murder Hoederrer... <ICLE-BR-SUR-

0001.1>

(10) *In conclusion,* I would say that a single europe would lead to a damaging

loss of sovereignty for Britain... <ICLE-BR-SUR-0033.3>

(11) ...that blacks probably got into these situations *as a result of*

discrimination and oppression... <ICLE-US-MRQ-0004.1>

(12) to operate than nuclear power are in the New England area. *Furthermore*, it is argued that nuclear power is 20 percent cheaper then coal burning in the Midwest... <ICLE-US-MRQ-0006.1>

(13) ...the loss of purity and consequently could not fit in with party lines. *Hence*, he was not of much use to the party... <ICLE-BR-SUR-0008.1>

(14) *Firstly* he asks, "why not commit suicide"... <ICLE-BR-SUR-0006.1>

(15) *To summarise* then, our feelings of sympathy and possible admiration for Calligula are evoked... <ICLE-BR-SUR-0014.1>

In the TLEC:

(1) ... don't want to lear them any time to come and present their country because they *also* have an obligation to that club they are playing for. <ICLE-TS-KIMC-0369.1>

(2) ...American people not us African people. *Because of* our poverty the United Nations Organisation has exported more than 50 Billion condoms which was latter find out... <ICLE-TS-NOUN-0115.1>

(3) *Because* the HIV/AIDS epidemic does not have its own people or only specific type of people you would not tell if one has it or not. <ICLE-TS-KIMC-0288.1>

(4)...because I think this is also the cause of HIV/AIDS *especially* in young people... <ICLE-TS-KIMC-0343.1>

(5) *as a result* many people are competing for employment... <ICLE-TS-NOUN-0221.1>

(6) *Since* there is no work for the people in Africa other people feel that prostitution is the answer to their problem... <ICLE-TS-KIMC-0363.1>

(7) This would bring back the spirit back *though* on the other hand stadium's are not full of spectator's... <ICLE-TS-NOUN-0021.1>

(8) In the field of human and social development, *however*, the consequences are expected to be much more profound. <ICLE-TS-KIMC-0357.1>

(9) ...it will mean confusion *hence* bringing bad results leading to unsatisfactory... <ICLE-TS-NOUN-0475.1>

(10) Reasons why i agree *firstly* lie in the national squad (S.A)... <ICLE-TS-NOUN-0125.1>

(11) ...innocently and continues with that kind of life, thus spreading it (HIV/AIDS) farther. <ICLE-TS-NOUN-0052.1>

(12) So he can pick and choose anyone he wants because his got a smart car, big house and a deseant job. And they are the people who are promoting this deadly desease. <ICLE-TS-KIMC-0290.1>

(13) ...*although* infectious diseases have turned into disaster... <ICLE-TS-KIMC-0362.1>

(14) Fistly most of our peaple they got little ideas abaut aids. *secondly* they dont know how to treat this disease... <ICLE-TS-NOUN-0218.1>

(15) ...caused criminal harm to my family *therefore* yes i agree with the statement. <ICLE-TS-KIMC-0356.1>

In the DLE:

(1) Television is *also* abused very often, and especially by parents. <ICLE-DB-KVH-0008.1>

(2) *First* I am going to describe what the problem really is, then I will sum up the causes... <ICLE-DB-KVH-0011.1>

(3) ... programmes are broadcast on public networks. *For example*, Panorama" and "Ter zake" on BRTN, "Nova" on NOS... <ICLE-DB-KVH-0018.1>

(4)... or just watch some soap serie. *Therefore* if Marx would be alive now, he would have stated that television is the opium for the masses. <ICLE-DB-KVH-0018.1>.

(5) ...by a group of responsable people. *However*, there aren't just negative aspects to censorship. <ICLE-DB-KVH-0004.2>

(6) ...legislation because they find the penalties for criminal offences inadequate, *especially* for terrorist offences and murder of policemen. <ICLE-DB-KVH-0011.2>

(7) *Although* money can be very useful, it often leads to situations where the role of money becomes increasingly important. <ICLE-DB-KVH-0020.2>

(8) *Because* people are able to see whether you are rich or not.... <ICLE-DB-KVH-0034.2>

(9) *Though* a lot of people were, and still are, inspired by it, the Catholic Chrich doesn't really seem to be... <ICLE-DB-KVH-0010.3>

(10) First, I take for granted that some persons deliver themselves instinctively more to their imagination than other. *Secondly*, everybody doesn't react to our modern society in the same way. <ICLE-DB-KVH-0031.3>

(11) ...life has stayed strikingly more modest than men's. *Yet* we can see an evolution in the good direction. <ICLE-DB-KVH-0050.3>

(12) *In conclusion*, it is not the literal text, but the symbolic interpretation that makes the myth... <ICLE-DN-AVU-0008.1>

(13) As a result of all the burials, huge graveyards come into being... <ICLE-DN-AVU-0014.1>

(14) ...literature and art *for instance* are two other branches that have always existed... <ICLE-DB-KVH-0005.1>

(15) *Hence*, there is a severe danger in that the media 'censor' our ways of thinking;... <ICLE-DB-KVH-0045.2>

From this table and these examples it becomes evident that most of the linking adverbials come from the extending and enhancing categories. Therefore, not only do the sample analysis show that the extending and enhancing categories are the most frequently used, but the most common lexical items in each corpus also emphasise this finding.

5.2.4. ERROR ANALYSIS

In the previous chapter mention was made of an analysis done to determine whether linking adverbials are used correctly, in misleading ways, are marked or unmarked, or superfluous, using the following symbol system:

TABLE 4: Error analysis categories

Symbol	Description
-1a	**Category 3a – logically misleading cohesive errors**
-1b	**Category 3b – logically misleading semantic errors**
0	**Category 1a– unmarked but clear**
x	**Category 1b – unmarked and misleading**

1	Marked correctly
2	Category 2 – superfluous.

The results of this analysis sheds light on the effect of linking adverbial use on cohesion and coherence. For this purpose, examples from each corpus are used to illustrate the error categories in each corpus. Sample analyses of essays from each corpus are also done to illustrate the link between linking adverbials and cohesion and coherence.

In the Locness corpus it was hard to find examples of all the misuse categories. Most of the linking adverbials in this corpus are not misused. As a control corpus, one would expect this – this corpus does, after all, form the norm that the other corpora are measured against. The most common misuse categories are those of -1b (logically misleading semantic errors) and 2 (superfluous linking adverbials). Here are examples to illustrate these categories:

(16) This ability to shock his audience was an attribute he found very powerful and positive, in that he was thus<<-1b>> guaranteed their attention and a reaction. <ICLE-BR-SUR-0001.1>

In this example, the linking adverbial *thus* is used. The writer wants to convey that the person in question in the essay used shock tactics to gain the

audience's attention. To my mind the linking adverbial *therefore* would have been a better choice, so that the sentence would read:

> (17) This ability to shock his audience was an attribute he found very powerful and positive, in that he was *therefore* guaranteed their attention and reaction.

Even though these linking adverbials are both enhancing causal-conditional causal, *thus* is the wrong choice as it does not ease the reading of the sentence, whereas *therefore* eases the flow of the sentence, aiding coherence and cohesion. *Thus*, as the wrong semantic choice, makes the sentence jerky and thus has a negative effect on the cohesive unity of the text.

An example of a superfluous use of linking adverbials is the following:

> (18) He sees no difference in any values as death is inevitable in any case so<<2>> all judgements therefore<<2>> are reduced to the same values. <ICLE-BR-SUR-0002.1>

In this excerpt the linking adverbial *in any case* is used. *So* is also used in the same context as *therefore*. As mentioned in chapter 4, *so* can be considered in circumstances such as these. Therefore, using *so* and then a few words later *therefore* is a superfluous use of linking adverbials, as they both fulfil the same role. Moreover, using them in conjunction with *in any case* is using

three linking adverbials with the same role and meaning. Thus superfuous use of linking adverbials seems to serve the purpose of emphasising a point, thus strengthening the coherence, but it causes a breakdown in cohesion as the reader stumbles because of all these linking adverbials to get to the crux of the matter. Even though the superfluous linking adverbials may strengthen the coherence, or the underlying argument, it has a detrimental effect on the cohesion of the essay.

The following is a sample analysis of two essays from Locness followed by a discussion on the misuse categories. Note that all tags <*> was inserted by the corpus compilers and indicate that a quotation was used.

Over the years, too much emphasis has been put on distinct gender identities. It was once thought that men could have only certain identifying characteristics and, likewise<<1>>, that women could have only certain identifying characteristics. Today, however<<1>>, stereotypical behavior is becoming a phenomenon of the past. We, as an ever changing society, should abolish distinct gender identities and recognize the fact that distinct male and female identities can be prevalent in either gender."Distinct gender identity" is not a common phrase and, therefore<<1>>, requires explanation. Over the years, traditionalists have stereotyped the male gender to be <*>. Likewise<<1>>, women have also<<1>> been stereotyped to be <*>. Each set of qualities or

characteristics was thought to be possessed only by the specific identified gender. It was also<<1>> thought to be abnormal if one gender possessed qualities or characteristics of the opposite gender.

Tradition has played an important role concerning distinct gender identities. Today, however<<1>>, some women are thought to possess male gender qualities and some men are thought to possess female gender qualities. The fact that a man possesses feminine gender qualities does not mean that he is less masculine. Likewise<<1>>, the fact that a woman possesses male gender qualities does not mean that she is less feminine. William H. Masters, Virginia E. Johnson, and Robert C. Kolodny, noted researchers, have found that today masculine and feminine traits are looked at separately and that they <*>. Stated differently<<1>>, a woman who is aggressive and competitive can be quite feminine. Also<<1>>, a man who is sensitive and loving may also be very masculine. Traditionally, women were taught that their greatest goals in life were to be a wife and then a mother. Betty Friedan, a feminist organizer and writer, states that <*>. Many women became unhappy with their lives as a wife and mother and wondered if this was all that life had to offer. These women had always been taught that their distinct gender identity only included traits

commonly found in a wife and mother; however<<1>>, they were not fulfilled. These women were led to believe that if they were not happy fulfilling this role that something must be wrong with them <R>. As a result<<1>>, they were psychologically affected by their unhappiness and also<<1>> by their feelings of a lack of self-fulfillment. In this instance<<1>>, by abolishing the distinct gender identity, there would be no psychological impact and, therefore<<1>>, a more well-adjusted female would exist.

Men, traditionally, were looked upon to be the aggressor of the two genders. Moreover<<1>>, they were considered very successful if they exuded male gender traits to an extreme degree. This, in and of itself, placed a tremendous psychological burden on the male gender to succeed. Warren Farrell, a noted psychologist, recounts a story in which the main character pays a high price for adhering to gender-based codes of success <R> . In this narrative, Ralph, the main character, states <*>. Unfortunately, the male gender identity requires that a man be competitive and aggressive. if these traits were abolished or became non-distinct, multi-gender characteristics, men would be relieved of this pressure and, therefore<<1>>, the psychological burden would be

lifted. This would, in turn, provide for a more healthy male gender.

With the divorce rate escalating, there are more and more single parent families. There are women who are having to play the role of mother and father. At the same time<<1>>, there are also<<1>> men who are having to play the role of mother and father. Women, who are faced with the task of being a single parent, are forced to be strong, courageous, dependent, and self-reliant. Even though<<1>> these are strictly male gender identity characteristics, these women are forced to emanate these qualities. Likewise<<1>>, men, who are faced with the task of being a single parent, are forced to be sensitive and loving. Even though<<1>> these are distinct female gender identity characteristics, a single father would be forced to radiate these qualities in order to raise a healthy, well-adjusted child. it would be ridiculous to think that men should not provide these qualities in order to raise their children just because the male gender identity does not permit them to be sensitive and loving. Likewise<<1>>, it would also<<1>> be ridiculous to think that women should not be strong, courageous, dependant, and self-reliant just because the female gender identity does not include these traits.

In today's society, distinct gender identities have proven themselves to be useless and also harmful. The psychological effects, due to stereotypical behavior, have been determined to be destructive. Moreover<<1>>, women in the work place and single-parent women have been compelled to be aggressive and competitive on order to succeed. Also<<1>>, single fathers have found it necessary to be loving and sensitive in order to be a good parent. Distinct gender identities have become obsolete in today's society and should, therefore<<1>>, be eliminated. <ICLE-US-SCU-0004.1>

In this essay all linking adverbials were used correctly. The only comment to be made is that the writer seems to overuse some linking adverbials, specifically *also*, *however* and *therefore*. However, the overuse of these linking adverbials does not hinder the reading of the essay as misuse of linking adverbials do.

Oreste's birthplace was Argos and on the death of his father, the king (who was, incidentally<<1>>, murdered) he was taken away to Athens to be brought up there by a noble family. When he returns to Argos, he cannot feel a part of the city for the simple reason<<1>> that he is innocent, and feels innocent, whereas all those citizens born in Argos and living there, have supposedly been born into guilt. The whole point of the play seems to be an

attack on the Church and religion (especially<<1>> Catholic) which holds good considering Sartre's atheism.

The whole city of Argos is in perpetual mourning and repentence for a murder which happened unbeknown to many of them: for those who were around, guilt is theirs for not having prevented the atrocity. The Queen's mournful clothing and black funereal make-up emphasize the point: there is no happiness in the city. They are all allowing themselves to be ruled by the past and, in fact<<1>>, seem to be in a time-warp, not moving forward, not even seeing their futures. All the features Sartre placed in the play show an exaggerated set-up of the real world and its religion. The fact that religion tells us we are guilty because we are human and we live governed by the murder of Christ which happened unbeknown to us, but we must still repent this sin. A significant attribute is the plague of flies around and in Argos, to enhance the picture of being totally enclosed and "attacked" by something which Sartre implies is all in the mind. This ability to shock his audience was an attribute he found very powerful and positive, in that he was thus<<-1b>> guaranteed their attention and a reaction. Here<<1>>, he has even placed a god "on earth" as it were, as if to prove that they are in fact no greater than us and the fact that they can produce miracles, has no bearing on

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their power over us and does in no way justify our servitude under them.

Then<<1>>, enter Oreste. As the Christ of our bible, he enters his homeland innocent and totally apart from the citizens of Argos. Nobody is laughing and the stark, brutal morbidity of the city and its "tradition" hits him hard: <quote>. He is incomplete and unfinished, looking to find an identity with his birthplace. At this point<<1>> he still believes in the guidance of the deity and is amazed by Jupiter's miracles. However<<1>>, this does not last for long. In this play, Sartre's object was to show the development of Oreste from innocence to knowledge and understanding: it is well to note that Oreste starts from nothing. All existentialists seem to pass through a stage of nihilism although<<1>> recognised as the temporary stage it is, and this seems to be significant in that starting from zero is how your character or nature can accept life and mortality, being honest and knowing the truths, yet living freely and with choice: <quote>.

He emphasizes the people's bad faith in denying themselves freedom and in not choosing their own destinies. Sartre was particularly against letting oneself be ruled by the past: what's done is done, life

must go on. Here, he also<<1>> parodies the Easter resurrection and celebration of the French Catholic Church with the "Fêtes des Morts": the people being ruled by the past. The people believe that the dead of the city return to "live" among them to make them suffer for their deaths. The play shows the farcical nature of such a practice: the Catholic Church has the spirit of Christ returning to Earth in much the same way. Here<<1>>, he is trying to show that the dead only "live" in the minds of the people; their "religion", repentence and guilt are only in their minds. Jupiter ironically tells Oreste: <quote>.

Only Electre seems lively enough to want out of this city. However<<1>> she is, like many, a coward. She believes in some Messiah, in the form of her brother, coming to save her. She refuses to do anything constructive herself to deny the despotism underway in Argos and ultimately when Oreste arrives refuses to help him and tells him to leave them alone. She seems to parody the average man, here, who will complain violently about his life, his situation, what he could have been if only "X" had not happened or "Y" had not prevented him: yet this person will refuse to attempt to change his position. To Sartre this is bad faith: the refusal to

admit your own freedom and to take responsibility for your own actions.

Oreste only decides to stay in Argos because of Electre: she sparks him into action, although<<1>> his pride and search for an identity back her up. This<<1>> has a good existentialist choice: facing up to your problems, not running away, taking responsibility for what you are doing. <ICLE-BR-SUR-0001.1>

Again most of the linking adverbials are used correctly. In most cases where linking adverbials seem to fit into an error category it is the sentence structure and not the choice of linking adverbial that seems to be at fault – in other words, the linking adverbial is correct for the context of the sentence, but the sentence structure makes the linking adverbial seem like the incorrect choice. The only error category occurred in a sentence already discussed in a previous paragraph:

(19) in that he was thus<<-1b>> guaranteed their attention and a reaction.

It is important to note that the TLEC shows a much more limited use of linking adverbials than Locness. In other words, the linking adverbial total of the samples in the TLEC is much lower than the linking adverbial total of the samples in Locness. This may indicate that the writers in the TLEC haven't mastered linking adverbials as well as ENL writers and that they do not know

how or where to use them. Furthermore, the overuse of certain categories may indicate that only certain semantic categories were mastered and are overused while others are underused. The lower frequency of linking adverbials in the TLEC indicates a gap in the academic literacy of BSAE speakers. The TLEC shows many error categories in various essays, and more often than not various misuse categories in one essay. However, no errors from category 3a (logically misleading cohesive errors) and category 1b (unmarked and misleading) occurred. There were simply no inverted or revered order in the linking adverbial usage, and the writers in the TLEC show a tendency to mark everything, rather than to let things go unmarked. Where linking adverbials were not marked, it was done in a way so that the meaning was still clear.

Here are some examples of errors found in these essays.

(20) They teach him the things he did not bother playing whereas<<-1b>> he knew how to play but instead chose a wrong career of being a rapist or house breaker. <ICLE-TS-NOUN-0135.1>

Here the linking adverbial *whereas* is used to signal that the person in question did know how to play, but chose a wrong career. This is obviously the wrong choice of a linking adverbial. The cohesion and coherence of the essay suffers as a result, as the reader struggles to decypher what the writer

means with this sentence. A word like *although* or *even though* would make more sense here, so that the sentence reads:

(21) They teach him the things he did not bother playing *although* he knew how to play but instead chose a wrong career of being a rapist or house breaker.

(22) Poverty is the cause of HIV/AIDS many people are unemployed and if you are not employed where are you going to get money. <<0>>You are going to suffer. <ICLE-TS-NOUN-0085.1>

In this excerpt the transition between sentences that are linked is made implicitly, without the use of a linking adverbials, and the meaning is still clear. The writer could easily have used the linking adverbial *therefore* to link the sentences so that it reads:

(23) Poverty is the cause of HIV/AIDS many people are unemployed and if you are not employed where are you going to get money. *Therefore* you are going to suffer.

However, even without the use of this linking adverbial the meaning and implicit link is still clear and the passage still is coherent.

The next example contains both the correct and superfluous use of a linking adverbial.

> (24) Most people in Africa are very poor. They don't have jobs, money therefore<<1>> they are starving as a result<<2>>. <ICLE-TS-KIMC-0371.1>

In the first instance, *therefore* is used correctly even though the sentence structure is not perfect. Had the writer used only this linking adverbial, this would have been an understandable and cohesive sentence. However, using *as a result* in the same sentence is superfluous. *Therefore* already indicates a cause-and-effect sentence, and adding *as a result* makes the sentence clumsy and difficult to read. This superfluous use of linking adverbials, therefore, has a detrimental effect on cohesion and coherence.

Below is an analysis of two essays from the TLEC followed by a discussion.

It is a fact that most degree are more theoretical than practical in universities. Students are just taught without being given the practice that they deserve. Today<<1>>, in most cases, Students, after graduating from universities, they just sit with their certificates without being appointed for any post because of<<1>> not having the relevant experience. Most of the time, in fact<<1>> every time, experience is always required in

job advertisements.   If you have never done the course practically, yes you can be appointed, but of course you won't get or be payed the actual salary because of the shortage of your course, practicalwise.

Often, students get distinctions in their courses (theoretical courses), and in this case, a lecturer will be impressed with the marks of these students.   If you analyse this, it will come to a point were you realize that a student knew something about the course for the mean time he or she was writing his or her examinations, but after that what was read just get wiped away.   So<<1>>, it would be different if courses were done also in a practical way, one would get to know and understand what is to be done or what is done and still remember that in years to come.   If you learn using your hands, For instance<<1>>, touching and Feeling, experimenting, observing, comparing and even predicting it is not possible For one to Forget a certain thing easily but instead, such information would be stored in a long-term memory, so once you try to retrieve information stored, years to come, surely<<1>> you will rember even if it you won't have a clear picture but surely<<1>>, again<<2>>, you will be able to pick up bits and piesces of what you once stored, even when you work because you will need to remember some of the things you once studied.   So, if you did the course practically

(also) you would remember it won't be necessary for one to go back and consult his or her books.

Practicals would reward everyone from either sides, the employee in this case and employer. Employers won't need to send their new employees to time and again workshops, and in this case the company will be saving a lot more because at times you have to consider such things.

If one is being employed with the knowledge of theory only, that particular person would definitely need to be workshoped at the expense of the company in order for him or her to know clearly what is expected in reward.

<ICLE-TS-NOUN-0455.1>

In this essay, most of the linking adverbials are used correctly, apart from the superfluous use in this sentence:

(25) surely<<1>> you will rember even if it you won't have a clear picture but surely<<1>>, again<<2>>, you will be able to pick up bits and piesces...

The use of *again* after the linking adverbial *surely* has already been used is superfluous, as both serve to indicate certainty as to a certain topic. This doesn't hurt the cohesion and coherence as much, though, as the very long sentence that seems to make up the main argument of the essay. This long

sentence, in conjunctrion with the superfluous use of linking adverbials and the repetitive use of the same linking adverbials over and over are the factors that cause a collapse in cohesion and coherence in this essay.

To start with, for something to happen; there must have been a cause, like wise<<1>>, for prison system to be established, there were a considerable number of factors which were mushrooming, therefore<<-1b>> the following are some of such factors; theft, rape, tribalism, Poverty and many more others, not mentioned.

Firstly<<1>> if I was cought in the act of stealing, the first thing and the best thing that the low think of is imprisonment, whereas<<1>> precoution measures should have been applied, For example<<1>>. I Should be asked where I come from, why I diceded to do that, and if possible be taken home so as to analyse why I came to steal. Maybe I stole becase I wanted to feed my family. If its from that angle, then I Should not be taken to prison, insted I should be given a task or work, even if I'm not educated so that I will be able to feed my poor family. If I'm doing it out of gratitude then I must be taken to prison on harsh. Conditions and if posibble one hand should be Cut off because its the one that does the stealing, if I Continue, one leg should be taken off becase its the one that does the walking. Secondly<<1>>

people who rape should be counselled and maybe tought with literal examples of the damage they have done on somebody, if this is to no avail, well I suggest no imprisonment, what I think should be done is cashation for both male and females to end this unclean behavior.

However<<1>> this are just Ideas, but Can be of help if taken into Consideration. In Iraque I herd such punishment are used; and Rumour continues that in that Country even if you walk alone at any hour of the night, you will have peace around you; get me right, I m not saying there is no crime in that country, but minor crime is strictly dealt with, that people being packed into prison camps for little crimes.

Lastly<<1>> trabalism is also<<1>> a contributary factor, in that, in one Country there are two tribes with different belives, Culture, and history, and when it comes to power, however<<1>>, one tribe is not fully representd, this leads to that tribe in power, electing only its own people to power on the contrary to the other one, this result in fighting, gansterish and more people being taken to prison, Some for the crimes they did not comit, but just because they belong to the minority tribe. thus<<-1b>> prison camps are wrongly used. The fact that the prison systeams are outdated, moreover<<-

1b>> they are old and not habitable, for instance<<1>>, you find that a cell or a room is in one place with a toilet, how does one eat or even sleep with a smell of stench all around him. Moreover<<1>> how do fife people sleep in a cell meant for one. you will find that we are trying to solve a problem with a problem, because in those cells prosioners develop bad behaviours like a male having sex with a male, and this result in<<1>> incouraging diseases like H.I.V aids and other sextually transmitted diseaseses.

The essay above shows a few examples of correctly used linking adverbials, but also some incorrect semantic choices.

(26) The fact that the prison systeams are outdated, moreover<<-1b>> they are old and not habitable

The excerpt above shows the use of the linking adverbial *moreover*. In the second clause the writer intends to emphasise the concept of *outdatedness*. The choice of *moreover* here is therefore not the best; *in other words* would have been better suited to the context. Again, the reader becomes confused as to the meaning of the sentence, leading to a breakdown in cohesion and coherence.

The DLE shows patterns more closely related to that of Locness than the TLE does. However, as is the case in the TLEC, the EFL corpus shows a much lower linking adverbial frequency than Locness. Again, this may indicate that linking adverbials have not been fully mastered and assimilated by the EFL learners and shows a gap in their language proficiency. Though there are some errors, there are markedly fewer errors in this corpus of foreign language English student writing than there are in the ESL corpus. Most errors made were the wrong semantic choices made, for example:

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(27)  particularly<<1>> here in Belgium, because
      of<<-1b>> Brussels is slowly becoming the
      European capital city.
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In this example, *because of* is used as linking adverbials where the conjunction *because* would have sufficed. This makes the sentence more difficult to read, thus marring the coherence of the text.

Most of the essays analysed looked like the one below, and overall there are very few problems, cohesive or coherent, and errors in this corpus.

```
Ever since man has existed, he has been dreaming about
how to make life easier, with continuous inventions as a
result. Starting with what are now called 'simple'
inventions, like fire and the wheel, he has used his
imagination to realize more and more sophisticated
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wishes. Today<<1>>, most people in our modern society are furnished with the most basic facilities and even much more. Science technology and industrialization dominate our society, but can we go that far to state that there is nolonger place for dreaming and imagination?

Just as all inventors before us, who needed all of their imagination to find a solution for a problem, people today go on trying to find new solutions for new problems, using as well<<1>> all of their imagination. On the one hand<<1>>, it is true of course, that most of them are professional researchers or scientists and that only very few are amateurs who happen to have en 'Eureka' experience. Still<<1>>, both groups of inventors need a lot of imagination. On the other hand<<1>>, I agree with those who say that, concerning professional research, most of the work is done by routing programs and investigations, every time more and more extended, and then analyzed and processed by the computer. It seems as if dreams or imagination are no longer welcome in this scientific world.

So far<<1>>, I have only been talking about inventions and science, but what about the children's world? Children have always been great dreamers and they are said to have an enormous imagination, making new games or new words, fantasizing about everything, living in their own fantasy world. So<<1>> why would they not anymore?

Even if<<1>> TV, video and computer games, or other technological things leave few space for dreaming and imagination, children will still be children. Except for some extreme cases where children -or people- have become numb and a-critical, unable to have a proper opinion or to think for themselves, I think that science and technology can never make an end to dreams and imaginaiton.

Furthermore<<1>>, fantasy is important in many other areas besides science and children's plays; literature and art for instance<<1>> are two other branches that have always existed on fantasy and imagination. Without his inspiration a writer would never be able to publish a new book, article, study etc. And as no machine has ever managed to successfully write a complete work (nor has it managed to mak a fully acceptable translation), authors will still rely on their inventiveness and talent to survive; the same rule can be applied to artists. New exhibitions, novels, etc show that their creativeness seems to be inexhaustible – and I am convinced it always will -, with every day more and worldwide success and interest. Again<<1>> I have no argument to state that dreams and imagination have ceased to exist.

In my short article, I have tried to show that I am not of the same opinion with people who say that in our modern society there is no place left for dreaming and

imagination. Although<<1>> I understand their opinion to some extent that dreaming and imagination seem to have less space every day - certainly<<1>> because of alienation, numbness, a-criticism, etc. -, I am convinced that, no matter how science and industrialization may evolve, dreaming and imagination are inextricably bound up with our existence. Let's hope I am not living in a dream world... <ICLE-DB-KVH-0005.1>

This essay shows a wide variety of linking adverbials, used correctly, with good cohesion and coherence. Again, this is a characteristic of most essays in the DLE.

For several years, our national and international politicians have shown a real will to build together a great, powerful and rich nation. This nation was born of economic realities : in order to stay competitive, with regard to a great market like the United States for instance, we were obliged to work out a new strategy. In the beginning, this concerned especially<<1>> a very specific part of industry, namely coal and steel. Rapidly this economic union became a larger sociological cooperation with human values. Why not create a unique market where persons and goods should enjoy all facilities for being transported and exchanged ?

A new nation is imagined and it only has to be put in a concrete form. Since then, all the European countries

belonging to the European Communities devote their energies to a task which will be finished in 1992 and which will give birth to a common child called "Europe 1992". The politician's will exists but what's up with the European people ? Do they really become EUROPEANS and lose their national identity ?

Europe 1992 has already brought positive and negative realities which are not to be neglected. Nowadays, we have to reckon with an ever growing number of foreigners in the European countries and particularly<<1>> here in Belgium, because of<<-1b>> Brussels is slowly becoming the European capital city. Those people have different cultures. And<<1>> maybe this will lead people to become open-minded and to forget their xenophobia. Furthermore<<1>> there are more opportunities to travel and to meet other people : this is also a good thing for trade and business.

Soon<<1>> it will be very easy to learn, to live and to work abroad. Goods should follow the same market's rules and we shall be able to buy everything everywhere in Europe without all the border problems and the custom taxes. In a word<<1>>, life becomes easier than before. The great negative point of this challenge is the renunciation of a great part of our respective liberties. A European Authority controls our national competences and this gives more advantages to countries with a weak

economy than to countries where welfare is reality. The term "common will" that European politicians like to use is a very beautiful and noble concept. But<<1>> I think Europe 1992 will remain a dream because everyone thinks of his own interests and of his personal political, social and economical advantages. At all times, our history showed that Europe was a great battlefield where power meant rivalries and independance, wars of freedom. It should be a mistake to compare Europe with the United States. American people have a common history and language; and we haven't. Nor<<-1b>> do I enjoin people to compare an Englishman with an Italian or a German with a Portuguese ...

Even in a place like "the Berlaymont", heart of the European Communities where theoretically differences should be non-existent, we can feel tensions, rivalries and "political games" between the members of the twelve countries which should set the example. For non-Europeans, even if Europe 1992 is bound to fail, we are and will always be Europeans before being Belgians and Italians ... But<<1>> of course, in the bosom of the European Communities, we will feel Belgians above all. I would like to be sure that Europe 1992 is knocking on the door, but I fear that it will remain a utopia. <ICLE-FR-UCL-0020.1>

This essay shows two examples of wrong semantic choices.

```
(28)  particularly<<1>> here in Belgium, because
      of<<-1b>> Brussels is slowly becoming the
      European capital city.
```

This example has already been discussed earlier in this section. Another example from this essay is:

```
(29)  American people have a common history and
      language; and we haven't. Nor<<-1b>> do I
      enjoin people to compare an Englishman
      with an Italian or a German with a
      Portuguese ...
```

The writer of this essays uses the linking adverbial *nor*. This linking adverbial is usually used to add something to the argument but, in stead of linking the clauses by adding something with the same meaning it ads something with a different meaning or shows. In this example, *nor* does not achieve this goal. A better formulation of this sentence would be:

(30) I *also* don't enjoin people to compare an Englishman with...

This error analysis has shown that linking adverbials play a pivotal role in establishing both cohesion and coherence in an essay. In the examples where linking adverbials are classified into error categories and discussed, it

is made clear that other semantic choices may have made the essay more coherent and cohesive. Furthermore, the superfluous use of linking adverbials, though sometimes (but not always) serving to strengthen coherence, has a negative effect on cohesion. This establishes without a doubt that the misuse of linking adverbials have a detrimental effect on the cohesion and coherence of a text.

This analysis shows again that the EFL corpus data is much closer to the norm than the ESL corpus data. Both Locness and the DLE show that most linking adverbials used in these corpora are used correctly, whilst other errors occur very rarely. The TLEC shows a higher occurrence of error categories. These frequent errors in the TLEC may shows why the essays in the TLEC are sometimes incoherent and not as easily understandable as it should be. However, the TLEC and DLE are similar in the way that they both show an overall underuse of linking adverbials when compared to Locness.

5.2.5. STYLISTIC ANALYSIS

It is important to investigate the individual linking adverbial usage of each corpus to see whether the hypothesis made in this study can be proved. To do this, bar graphs representing the total number of linking adverbials in each semantic category were compiled for each corpus. The results will be discussed in turn while referring to the literature survey earlier in this study.

In the bar graphs below, the following points are marked:

On the y-axis:

1 - Elaborating (total number in corpus)

2 - Extending: (total number in corpus)

3 - Enhancing: Manner and matter (total number in corpus)

4 - Enhancing: spatio-temporal (simple) (total number in corpus)

5 - Enhancing: spatio-temporal (complex) (total number in corpus)

6 - Enhancing: causal-conditional (general) (total number in corpus)

7 - Enhancing: causal-conditional (causal) (total number in corpus)

8 - Enhancing: causal-conditional (conditional) (total number in corpus)

On the x-axis the numerical value of the semantic category is expressed.

On the x-axis the numerical value of the semantic category is expressed.

GRAPH 1: Raw frequencies of samples in LOCNESS.

Raw frequencies of samples in Locness

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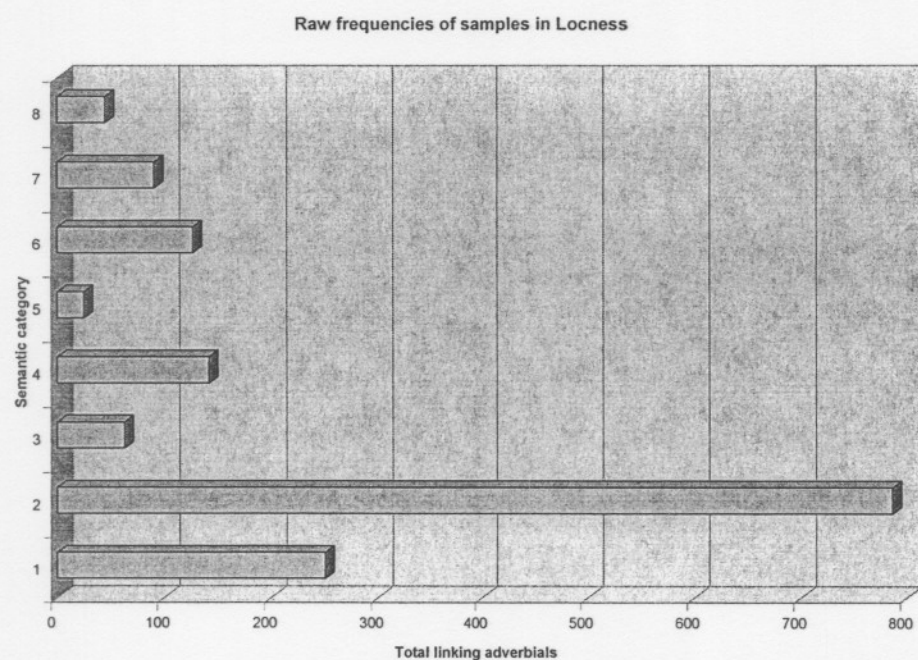
As has been stated in the first chapter, Locness, the ENL corpus, will be used as the norm to compare the other corpora with. Linking adverbial usage in this corpus, therefore, is taken as standard. This table indicates that extending linking adverbials (2 on the y-axis) are used most frequently in this corpus. Elaborating linking adverbials are also used quite frequently, as Biber *et al.* (2002b) predict, but not as much as those from the extending category. The following are examples from the corpus that illustrate the use of the linking adverbials:

(31) *To summarise* then, our feelings of sympathy and possible admiration for Calligula are evoked by the way in which <ICLE-BR-SUR-0014.1>

(32) by the lowering of the retirment age to 60. *Furthermore,* the strain on the taxpayers can only continue to get worse, <ICLE-BR-SUR-0030.1>

(33) could have only certain identifying characteristics and, *likewise,* that women could have only certain identifying characteristics. <ICLE-US-SCU-0004.1>

(34) La Chute involves guilt of various types, allocated to different people. *Firstly,* Clarence is guilty. <ICLE-BR-SUR-0004.1>

(35) that many people are unable to commit
suicide and are still alive. *Next,* the
opponents will argue that many of the
failed suicide victims will not <ICLE-US-
MRQ-0046>

(36) could not fit in with party lines. *Hence,*
he was not of much use to the party, <ICLE-
BR-SUR-0008.1>

(37) because she's intelligent? *The reason why*
is because society has a tendency to base
everything on sex appeal, <ICLE-US-SCU-
0015.2>

(38) that France was threatened. *Nevertheless*
through this ambiguity de Gaulle was able
to implement Article 16. <ICLE-BR-SUR-
0029.1>

The numerical values for each category show an uneven distribution of the
different semantic categories of linking adverbials – in other words, where
some semantic categories have a very high frequency (more than 300 out of
20 000) some have a very low frequency (less than 20 out of 20 000).

Therefore the ENL corpus findings more or less adhere to predictions made
by Biber *et al.* (2002a). This makes sense, as academic writing relies heavily
on enhancing and elaborating linking adverbials. Enhancing linking adverbials

are used to explain the why and the how of statements made in academic writing, as in these examples:

(39) She shows how all is "not for the best" and that misery and suffering are all prevelant. *Likewise* the negro slave who has lost limbs attempting to flee a sugar plantation… \<ICLE-BR-SUR-0019.2>

(40) should be, but pushed aside, made separate from the school. *In this way,* the "politics of difference" is formed. \<ICLE-US-MRQ-0008.1>

In the first example, the "how" is demonstrated by comparing two concepts to each other – in this case that the slave losing his limbs and the prevalence of suffering is not for the best. The second example tells one why something happens – because people are pushed aside, the politics of difference is formed.

Elaborating linking adverbials provide the writer the opportunity to provide proof and reasons for statements made in the academic writing, for example:

(41) The arguments in favor of capital punishment revolve around the ancient biblical concept of "an eye for an eye". *For example,* a criminal who murders should himself be murdered to fulfill what is

considered by many to be justice. <ICLE-US-MRQ-0003.1>

Here the writer makes a statement and the provides proof in the form of an example.

This is mirrored in the data from the ENL corpus, although enhancing linking adverbials are used less frequently than explained by Biber *et al.* (2002a).

GRAPH 2: Raw frequencies of samples in the TLEC.

Raw frequencies of samples in the TLEC
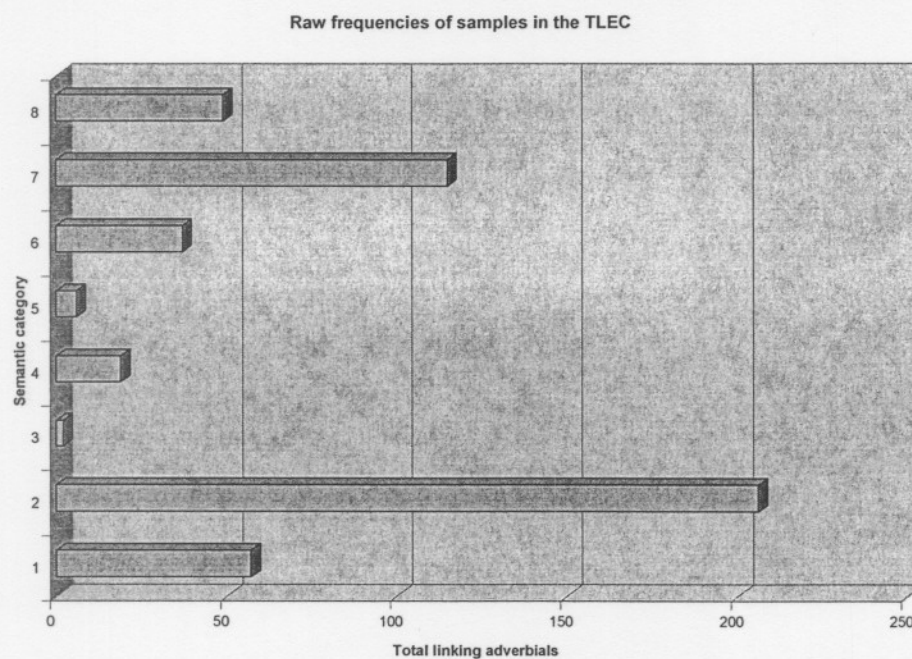
The TLEC was compiled at the North-West University (Potchefstroom Campus) and contains essays by university learners whose first language is Setswana and whose second or third language is English.

The ESL corpus shows a limited use of linking adverbials in general. Extending linking adverbials again are used with the highest frequency. All other linking adverbials show a use of fewer than 100 per 20 000 words, while extending linking adverbials are used 100 or more times per 20,000 words. The distribution is more balanced than in the ENL corpus, with the extending adverbials the exception with a very high frequency. This is not necessarily a good thing. If the EFL corpus, with its uneven distribution, is taken as the norm, as it is in this study, this even distribution is a deviation from the norm. However, compared to the ENL corpus the TLEC shows a very limited use of linking adverbials of any kind. The basis of this assessment is relative to the norm and not an independent frequency. These figures also show that enhancing manner and means linking adverbials are underused, as they occur only 2 times in a sample of 40 000 words. Enhancing causal-conditional specific are the only other linking adverbials that come close to the frequency of the extending linking adverbials.

One would expect the ESL data to be more similar to the ENL data than EFL data, but instead this study shows that the EFL data more closely mimics the ENL data than the ESL data. The reason for this may be found in literature on BSAE. Magura (1985), Van Rooy (2006) and Wissing (2002) all state that BSAE is a variety of English that differs markedly from standard varieties. As has been discussed earlier in this study, the reasons may range anywhere

from political issues to the education system, from language transfer to issues of idiolect. It is, however, important that other issues are also taken into consideration. Williams (1987) raises the issues of economy and hyperclarity. Williams (1987:169) states that ESL speakers, and especially speakers of New Englishes, may make certain modifications to the target language in order to make it more

> efficient and economical, a process which may result in some concomitant loss of specificity

In other words, the problem with economy is that it often causes ambiguity. The principle of economy of production is decidedly speaker-oriented and provides a guideline for acceptable shortcuts in the speaker's production. Ideally, this principle stops short of the extremity where a breakdown in communication takes place (Williams, 1987:169).

Very often economy in BSAE student academic writing is manifested in the underuse of linking adverbials in the corpus. The writing can sometimes be ambiguous and it is likely that this ambiguity is caused by a lack of words as it is not always clear what the learners mean. This is especially true for the study of linking adverbials in BSAE. Hyperclarity has the effect of reducing ambiguity in production (Williams, 1987:178). Ideally, we would like our language to be clear. This is, however, quite a broad specification which, left unspecified, can be too vague to operationalise (Williams, 1987:178). Any ambiguity introduced by the economy principle may be counteracted by the hyperclarity principle. The hyperclarity principle may not only be used to ease

the decoding of the message by the listener, but also for the speaker to keep track of their own production (Williams, 1987:179). In student writing, or any academic writing, clarity is a good charactersitic. Hyperclarity, however, is not. Hyperclarity is often seen in BSAE student academic writing, either by using more than one linking adverbial with the same purpose or by inserting a linking adverbial where one is not necessarily needed. For example:

(42)   Because we want to employ our selves but jobs are nowwhere to be fund thus. <ICLE-TS-KIMC-0361.1>

(43)   And that time since she go there more than twenty years, in the reason of asking for a job in fact. <ICLE-TS-NOUN-0228.1>

(44)   This will result whereby we will be having outside player in all the fields and our player ruining in the foreing fields. <ICLE-TS-NOUN-0123.1>

Not only are linking adverbials underused, but in some cases when they are used they are used superfluously, suggesting even worse underuse.

Williams's statements are supported by Meshtrie's undeletion hypothesis (2003), which states that BSAE can and should be seen not as an error-riddled dialect full of Non-Standard uses and derivation, but rather as a coherent system. The majority of differences between this system and Standard English can be attributed to the phenomenon of undeletion. This term refers to the hypothesis that certain grammatical elements which can be deleted systematically in Standard English can be "undeleted" in BSAE. That

is, they may appear in surface form in BSAE where they do not in Standard English.

The above-mentioned theory accounts for overuse, but not for underuse, of linking adverbials in the TLEC. Underuse may be connected to Williams' economy principle (1987:169). Williams mentions that the writers take "shortcuts" which ideally stop short of the extremity where a breakdown in communication takes place. As the sample analysis from the TLE has shown, the ommision of linking adverbials does not have an adverse effect on the cohesion and coherence of the essay as the implicit link is still clear even though no linking adverbials are used, for example:

(45)   Poverty is the cause of HIV/AIDS many people are unemployed and if you are not employed where are you going to get money. <<0>> You are going to suffer. <ICLE-TS-NOUN-0085.1>

The linking adverbial is not explicitly used in this example and yet the writer's meaning and link to the previous sentence is clear. Therefore, economy does occur in the TLEC and is linked to the underuse of linking adverbials.

All of these may be viable explanations as to why the ESL data are non-standard, and why the data in the ESL corpus differs from that in the ENL corpus. What does become clear is that the writing in the TLE has a more

conversational tone or register whereas the other two corpora show texts that adhere more closely to the academic writing register. It also emphasises the finding that BSAE students are not proficient in academic English and that this is an issue that the educational system needs to address.

GRAPH 3: Raw frequencies of samples in the DLE.

Raw frequencies of samples in the DLE
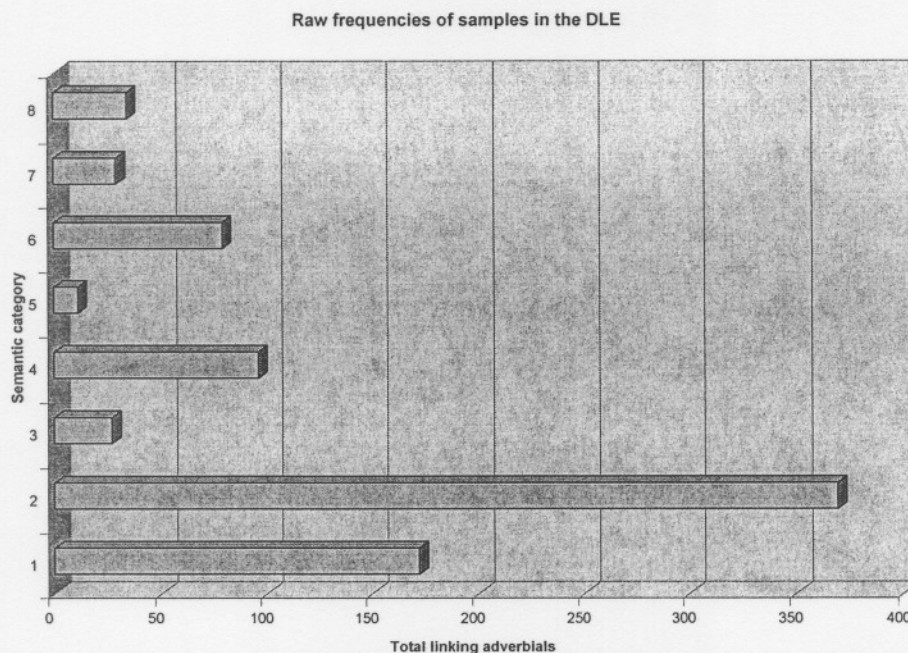
In this corpus extending linking adverbials occur more than the other linking adverbials. Nonetheless, the total of extending linking adverbials is not nearly as high as those in the ENL corpus, and doesn't differ as much from the other semantic categories as in Locness. Enhancing spatio-temporal complex linking adverbials are used the least and have a much lower frequency than any of the other linking adverbials, showing an underuse of this semantic category.

Tankó's (2004) statement that L2 learner's output data may seem unnatural because they cannot employ a variety of appropriate connectors in order to express cognitive relations, is not supported by the data of this study. The data from the DLE shows that EFL learner writing indeed does employ a

variety of linking adverbials, even though linking adverbials as a whole are underused. Granger and Tyson (2004) state that EFL student writing tends toward the conversational register, but the data from the DLE shows that these students adhere quite rigidly to the academic writing register, far more so than ESL students.

In the light of this information some differences and some similarities between the corpora become clear. In all three of the corpora extending linking adverbials are used most often. In most cases it is used so often that other semantic categories are underused. In the ENL corpus, Locness, linking adverbials generally are used frequently, whereas the TLEC shows a limited use of linking adverbials. The DLE shows that all the categories are used and shows a balanced distribution between the semantic categories that the TLEC does not show.

5.3.   CHARACTERISTICS OF LINKING ADVERBIAL USAGE

The aim of this section is to answer two important questions, namely:

(a) Do the corpora differ from each other?

(b) How do these corpora differ from each other?

The corpora will be discussed at the hand of the chi-square (χ^2) value, as well as inertia values, in order to determine whether and how they differ.

The χ^2-value below shows that there is a difference between the distribution in the corpora and the use of semantic categories in each corpora.
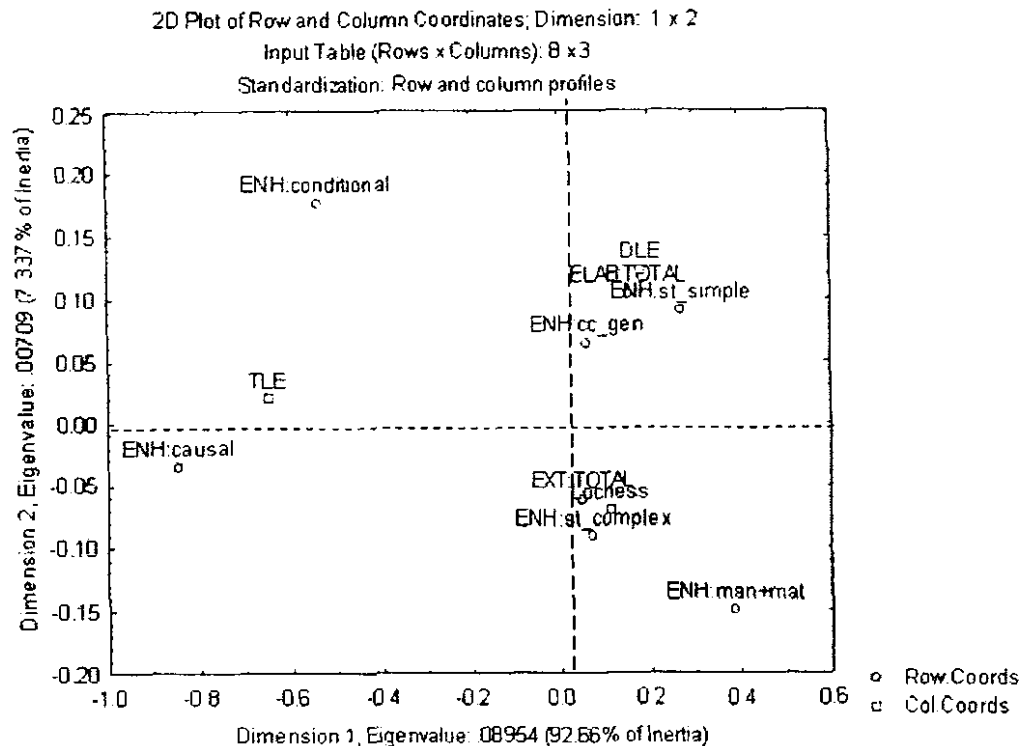
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$\chi^2=274,3$ ([df=14 ; p<0,001])

Inertia shows the weight that each corpus carries in explaining the differences between them.

TABLE 5: Inertia

	Relative Inertia	Inertia Dim.1	Cosine^2 Dim.1	Inertia Dim.2	Cosine^2 Dim.2
Locness	0.096576	0.073568	0.705876	0.387157	0.294124
TLE	0.758405	0.817715	0.999097	0.009337	0.000903
DLE	0.145019	0.108717	0.69467	0.603506	0.30533

The TLE shows an inertia of more than 0,8, which shows that the TLEC carries the most weight in explaining the differences between the corpora on dimension one (or the x-axis of the graph below).

GRAPH 4: Dimensions

2D Plot of Row and Column Coordinates; Dimension: 1 x 2
Input Table (Rows x Columns): 8 x 3
Standardization: Row and column profiles

This graph shows that the DLE and Locness are very much alike in terms of distribution. It also shows that the TLEC looks very different in terms of distribution, plotted far apart from the other corpora. The graph also shows the most characteristic linking adverbials for each corpus. In the TLE, enhancing causal and enhancing conditional linking adverbials occur the most, with inertia values of 0,66 and 0,14 respectively. In Locness, extending, enhancing (spatio-temporal complex) – with an inertia value of 0,0008 - and enhancing (manner and matter) – with an inertia value of 0,05 - are characteristic, whereas elaborating, enhancing (spatio-temporal simple) and enhancing (causal-conditional general), with respective inertia values of 0,07

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and 0,003 - are characteristic of the DLE. These findings show that the DLE shows underuses of certain semantic categories, but shows native-like use of linking adverbials, whereas the TLE shows underuse of semantic categories and a non-native use of linking adverbials.

TABLE 6: Inertia / dimensions

	Relative Inertia	Inertia Dim.1	Cosine² Dim.1	Inertia Dim.2	Cosine² Dim.2
Elaborating: Total	0.060855	0.045468	0.692338	0.255186	0.307662
Extending: Total	0.032102	0.013972	0.403324	0.261067	0.596676
Enhancing: Manner and matter	0.057542	0.053936	0.86857	0.103077	0.13143
Enhancing: spatio-temporal (simple)	0.077361	0.075304	0.901996	0.103336	0.098004
Enhancing: spatio-temporal (complex)	0.002047	0.000814	0.368594	0.017615	0.631406
Enhancing: causal-conditional (general)	0.006935	0.003648	0.487428	0.048447	0.512572
Enhancing: causal-conditional (causal)	0.613052	0.660414	0.99822	0.014874	0.00178
Enhancing: causal-conditional (conditional)	0.150107	0.146442	0.904006	0.196396	0.095994

Relative inertia refers to the contribution of each variable to the explanation of the difference between the variables. The inertia of dimension 1 (Inertia Dim.1) expresses the contribution of each variable to the first dimension, while the inertia of dimension 2 (Inertia Dim. 2) expresses the same on the second

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dimension. These factors are important as it shows which corpora cluster together and which are further removed and as it indicates which semantic categories are more characteristic of corpus compared to the other corpora.

If we look at the output of the coordinate space, we see that Locness and the DLE are plotted closely together in dimension one. In all of the categories, the TLE shows a very different picture that the other two. Dimension 1 is very strong, contributing 92,7% of the inertia. In Table 5 it is clear that the TLE presents a very different picture from Locness and the DLE, as the inertia of the TLE in dimension 2 is markedly lower that the inertia of the other corpora (DLE>0,01; Locness>0,01; TLEC<0,01). This shows us that the EFL corpus is more like the ENL corpus than the ESL corpus, something one would not normally expect.

The most characteristic linking adverbial in the TLE is enhancing causal and enhancing conditional most frequently. In the DLE elaborating, enhancing spatio-temporal simple and enhancing causal-conditional general are used relatively more than in the other corpora. Locness shows that extending, enhancing spatio-temporal complex and enhancing manner and matter are most characteristic of ENL writing.

The plotting of the three corpora in the two dimensions reveals that the TLE shows very different distribution patterns than the other corpora. It is noteworthy that the TLE, an ESL corpus, differs more from the ENL corpus than the DLE, an EFL corpus. As noted before, the different linking adverbial

categories, elaborating and extending as well as enhancing: causal, have the most weight in all three corpora.

In light of the above, one can now answer the questions posed at the beginning of this section: Are the corpora different from each other? And how do they differ? The high chi-square value mentioned at the beginning of this section already proves that the corpora differ from each other. As to how the corpora are different, the analysis shows that different factors contribute to the inertia in the two dimension – for example, enhancing causal and enhancing conditional linking adverbials are the factors that contribute most to the inertia of the TLE. The different factors that contribute to the corpora shows how the corpora differ – different linking adverbials are characteristic of each corpus.

5.4. CONCLUSION

From the numerical data presented in this chapter it becomes clear that the TLEC, a corpus of second language English writing, differs a great deal from the ENL and EFL corpus. One would expect the foreign language English corpus to differ the most, as it is generally expected that foreign language English students are less proficient in English than second language speakers. However, the data presented paints a different picture. In the coordinate space the DLE and Locness are plotted closely together, showing more similarities between them than between either of them and the TLEC, which is plotted separate from them. Another important fact gleaned from this data is that elaborating and extending as well as enhancing: causal linking

adverbials is characteristic in each of the corpora with extending linking adverbials always occupying the spot of most frequently used linking adverbials. The differences and similarities between the corpora, as well as possible explanations for these phenomena, will be discussed in the next chapter.

CHAPTER 6

DISCUSSION OF FINDINGS AND FURTHER RESEARCH

6.1. INTRODUCTION

In the previous chapters the theoretical framework, literature, methodology and data analysis pertaining to this study were discussed. This chapter will accept or reject the hypotheses stated in chapter one and refine them if neccesary. This chapter will also summarise the findings and results of this study, as well as make recommendations about possible further research.

6.2. DISCUSSION OF FINDINGS

There were two questions that this study wanted to answer. These questions are:

I. Are linking adverbials used differently by ENL, ESL and EFL English speakers in their academic writing?

II. Are certain linking adverbials misused, over-used or underused in their writing and which groups tend to misuse, over-use and underuse these linking adverbials? What influence does this have on the coherence and cohesion of the texts?

To answer the first question, whether ENL, ESL and EFL students use linking adverbials in different ways, the answer can only be yes. The chi-squared value ($\chi^2=274,3$) shows that there is a difference between the corpora in this

respect. The inertia of the different linking adverbials in the different corpora also shows that certain linking adverbials are characteristic of certain corpora. The data analysis also shows that the students have different ways of using linking adverbials, showing a surprising tendency that EFL student academic writing adheres more closely to the ENL standard than ESL student academic writing does.

A logical assumption to make would be that the ESL English will be more closely related to ENL than EFL English will. This study has shown the opposite to be true. The question is: why does the ESL English in the TLEC differ more from the ENL English in Locness than the EFL English in the DLE does? For an answer, we need to look back at the literature on the matter. It has already been said in chapter 5 that various scholars, such as Magura (1985) and Wissing (2002) believe that BSAE is a variety of English that differs markedly from standard varieties. However, this does still not explain why. For an explanation, Williams's (1987) issues of economy and hyperclarity are taken into consideration. Williams (1987:169) states that ESL speakers makes certain modifications to the target language in order to make it more efficient and economical. This process may result in a related loss of specificity in the target language. In other words, ESL speakers adapt the target language to make it easier for themselves to use. As a result, the language they eventually acquire is not as specific or precise as it should be. One word may be used as a substitute for many other words, such as the tendency in the TLEC to use because of in lieu of any other linking adverbials that may have the same function or meaning. Therefore, economy often

causes ambiguity. ESL speakers assimilate the language and use shortcuts that are acceptable to them. Ideally, these shortcuts would stop short of a breakdown in communication (Williams, 1987:169). This may happen, as has been shown in the analysis of essays in the TLE, where the ommission of linking adverbials does not have an adverse effect on the cohesion and coherence of the essay. However, economy may be the reason for the underuse of linking adverbials, as they are simply left out of the argument.

On the other side of the scale, hyperclarity has the effect of reducing ambiguity in production (Williams, 1987:178). Ideally, we would like our language to be clear – this is taught in schools and writing lessons everywhere. However, the idea of language being "clear" is a very broad specification which can be too vague to operationalise (Williams, 1987:178). In other words, telling an ESL student that his or her writing needs to be clear is a very broad requirement that they may not know how to apply. As a result, one comes across hyperclarity, where a profusion of words are used to emphasise one concept (something also illustrated by analysis of essays from the TLEC). Any ambiguity introduced by the economy principle may be counteracted by the hyperclarity principle. Hyperclarity is often seen in BSAE student academic writing, either by using more than one linking adverbial with the same purpose, or by inserting a linking adverbial where one is not necessarily needed. This has already been proven by the analysis in chapter 5.

Williams's statements are supported by Meshtrie's undeletion hypothesis (2003), which states that BSAE can and should be seen not as an error-riddled dialect full of Non-Standard uses and derivation, but rather as a coherent system. The majority of differences between this system and Standard English can be attributed to the phenomenon of undeletion. This term refers to the hypothesis that certain grammatical elements which can be deleted systematically in Standard English can be "undeleted" in BSAE. That is, they may appear in surface form in BSAE where they do not in Standard English. For example, in Standard English one would say:

(1)   My sister is sick.

A very common ESL sentence would be:

(2) My sister, she is sick.

The Standard English sentence has the same meaning as the ESL sentence, but in the Standard English sentence *she is* is deleted, and it is undeleted in the ESL sentence. As a result, some words or grammatical constructions may be overused in ESL because words that normally are deleted in Standard English are undeleted in ESL, or in this case, BSAE.

Another theory can be found in Van Rooy (2006), who states that Outer Circle (or New) varieties of English develop their own norms, while expandiong circle (or EFL varieties) of English stay closer to the inner circle norm.

As a further explanation, one might even look at how language is acquired or learned. The process of how we learn a language is one debated by many theorists. In South Africa, English is acquired as a matter of course, because

it is the language used in mass communication, education and government. Van Rooy and Van der Walt (2002:3) say that English is the primary language of education in South Africa. Teachers are usually regarded as models of English usage, but they are also the gatekeepers who determine the standards of English usage in education. Furthermore, English teachers who are L2 speakers most likely acquired the English they speak from L2 teachers as well. As a result learners are exposed to non-standard input transferred from L2 user to L2 user (Van Rooy & Van der Walt, 2002:3). According to Meshtrie *et al.* (2000:355) home/school and cultural differences are one of the main sources of classroom related educational problems. Classroom-based teaching and learning are heavily dependent on language and the language taught in the classroom is reflected in the learner's writing. In the L2 context, L2 is not only the content on instruction but also the medium of instruction. Where L2 is used for communication in an educational milieu the curriculum content is conveyed to learners in a cultural and linguistic medium that surpasses their competence to some extent and there is often little access to L1 sources of interpretation. Therefore, the learner's task is threefold: first, to make sense of tasks posed in L2, to attain sociolinguistic competence to allow greater participation and, finally, to learn the content itself (Chaudron, 1988:5).

This problem does not only occur at secondary level. A recent study done by Webb (2002) at the University of Pretoria shows that L2 there is inadequate language proficiency among students and staff and that students have no competent academic language proficiency. This leads to poor academic achievement and a poor foundation for academic development – the

development of higher order argumentative writing skills included. A further concern voiced by Mason (1999) and Botha (2003) is that the OBE system concentrates far more on verbal communication skills than on writing skills. The neglecting of writing skills may be one of the reasons for the poor academic writing proficiency of learners on secondary and tertiary level.

The writing communities of L1 and L2 speakers are very different. When asked to write in one's mother tongue, one absorbs a great deal about the culture and underlying values and ways of thinking and expression. This is a subconscious process that underlies writing in one's first language (Brookes & Grundy, 1990:31). When one is called upon to write in L2, one may see the task as simply encoding these same underlying assumptions and means of thinking and expressing into writing in another language. This cultural mismatch is often displayed in a learner's writing (Brookes & Grundy, 1990:38). The ideal is for the L2 outsider to become an insider in L2 writing, but this can only be achieved by continuous input by an L1 speaker. The educational system as it exists for the majority of BSAE speakers does not allow for this, and, therefore, BSAE is transferred from teacher to pupil. Furthermore, BSAE speakers often do not acquire writing skills in L1. The education system gives preference to L2 skills, and thus BSAE learners have the added problem of acquiring writing skills in a language that they are not adequately proficient in.

Entering the argument of language proficiency here is Cummins's concept of BICS (Basic Interpersonal Communication Skills) and CALP (Cognitive

Academic Language Proficiency). In simplified terms, BICS is the language (L1 or L2) that one uses in everyday interpersonal communication with friends and family. CALP is the language one is expected to use in academic situations and academic writing. The point Cummins and Swain (1986:152) make is that academic insufficiency is often created by teachers who fail to realise that it takes language minority students considerably longer to attain grade or age-appropriate levels in academic English skills than it does in English face-to-face (or interpersonal) skills. Anyone who has learned English as a second language will be familiar with this. As a member of the Afrikaans speaking English L2 community I know that I could speak English on an interpersonal level long before I acquired the ability to take part in any English academic discourse. However, Cummins states that to simply divide language proficiency into two categories is to oversimplify the phenomenon. Therefore, he goes on to elaborate these concepts along two continuums. The first continuum relates to the array of contextual support available when meaning is negotiated. The second relates to the extent of cognitive involvement required in the communication task (Cummins & Swain, 1986: 152 – 154).

Linking with these continuums, Cummins (1984) further postulated two hypotheses to conceptualise language proficiency. The first is the threshold hypothesis which states that children experience either positive or negative consequences of bilingualism. A lower threshold of bilingual proficiency, he says, is adequate to avoid the negative effects. The realisation of a higher

level of bilingualism is required to lead to accelerated cognitive growth. His developmental interdependence hypothesis declares that

> To the extent that instruction in Lx is effective in promoting proficiency in Lx, transfer of this proficiency into Ly will occur provided that there is adequate exposure to Ly (either in school or environment) and adequate motivation to learn Ly
>
> (Cummins, 1984:143).

These two hypotheses, says Coetzee-Van Rooy (2000:72), that bilingualism could be detrimental or beneficial to the cognitive development of children, and that competence in L1 could determine competence in L2, influences academic success where the L2 is used as language of teaching and learning.

Transfer related errors in learner language are a very complex issue. There is no proof that transfer is solely responsible for learner errors, but it undoubtedly plays a big role. According to Chaudron (1988:8) "teacher talk" has a great influence on the language used by the learner, whether the influence is on speech rate, syntax, vocabulary or grammar. However, transfer doesn't only refer to that language transferred from the teacher to the learner. When an acquired L2 item is unknown to the learner, he borrows an L1 substitute, and the consequence is an L1 transfer error. If a certain grammatical construction is used in the ESL or EFL speaker's mother tongue, he/she may transfer it to English regardless of the fact that it may not be grammatically correct in English. Certain expressions or constructions may not be used at all in the learner's mother tongue and will, therefore, not be transferred to the learner's English. Another factor that has to be taken into

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account is intra-lingual transfer – the transfer of a construction in the target language itself so that it takes on a new use. Selinker (1972:214) says that inter-language transfer culminates in a set of utterances produced by the learner of the target language (TL) and that this set of utterances

> is not identical to the hypothesized corresponding set of utterances which would have
> been produced by a native speaker of the TL.

All of these may be viable explanations as to why the ESL data are non-standard, and why the data in the ESL corpus differs from that in the ENL corpus. What does become clear is that the writing in the TLE has a more conversational tone or register whereas the other two corpora show texts that adhere more closely to the academic writing register. It also emphasises the finding that BSAE students are not fully literate in academic English and that this is an issue that the educational system needs to address.

As to an answer on the second question, the data anlysis has shown that certain linking adverbial semantic categories are overused by some student communities while others are underused. Each corpus and its distinguishing features will be discussed in turn.

In Locness, extending, enhancing (spatio-temporal complex) and enhancing (manner and matter) are characteristic, for example:
(3) in their agreement when Sandoz got the patent for clozapril. *Meanwhile* the hospitals are faced with negotiating with an other manufacturer of the drug.

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<ICLE-US-MRQ-0010.1>

(4) The concept of God is not discourage in a public school. *Similarly,*praying on school grounds is not a crime. <ICLE-US-MRQ-0022.1>

The data shows that Locness has an uneven distribution of semantic categories, in other words, that not all semantic categories of the linking adverbials are used equally frequently. This is clearly seen in the data, as extending linking adverbials are used more than the other semantic categories. This has been taken as the norm for linking adverbial usage.

In the TLE, enhancing causal and enhancing conditional linking adverbials occur the most, for example:

.

(5) Why is that? *Because of* no jobs, no money. <ICLE-TS-KIMC-0290.1>

(6) separation from their families. *Yet* these people are doing this... <ICLE-TS-POT-0190.1>

The TLEC shows a more even distribution than Locness. This means that even though enhancing linking adverbials are used frequently, other linking adverbials are rarely used. In other words, data from this corpus show two interesting charactersitics. Enhancing linking adverbials are underused,

possibly as a result of the overuse of enhancing linking adverbials. As the TLEC has an even distribution of semantic categories, it differs from the norm, Locness. In general, linking adverbials are underused. The TLEC also shows a non-native use of linking adverbials, as has been demonstrated in chapter 5.

Elaborating, enhancing (spatio-temporal simple) and enhancing (causal-conditional general) linking adverbials are characteristic of the DLE, for example:

(7) should be looked at individually. *firstly* specialists should try to find out whether something can be done <ICLE-DB-KVH-0010.2>

(8) don't the choices of few men determine many people? *Hence,* there is a severe danger in that the media 'censor' our ways of thinking... <ICLE-DB-KVH-0045.2>

While the DLE shows an overuse of certain enhancing linking adverbials, it nevertheless shows a distribution very much like Locness. The DLE shows underuse of certain semantic categories, as discussed in the previous chapter, but shows native-like use of linking adverbials and, therefore, is closely related to the norm, Locness.

As is to be expected, this non-standard use of linking adverbials in the TLE has a detrimental effect on the cohesion and coherence of the essays. This

has been shown by the essay analysis done in chapter 5. Through the error analysis it becomes clear that the TLE has the highest instances of linking adverbials used in non-standard, unclear or misleading ways. As mentioned in chapter 2, De Beaugrande and Dressler (1981:3) state that the cohesion of a text hinges on "grammatical dependencies" such as linking adverbials. The analysis of error categories as well as essay analysis prove this statement: when linking adverbials are used superfluously or when the wrong semantic choice is made, or when linking adverbials are omitted, it has a detrimental effect on the cohesion of a text. The analysis has also proven that the misuse of linking adverbials can have an adverse effect on the underlying connectivity, or coherence, of a text. Through analysis of the essays, the points of view of the scholars in chapter 2 as well as those in chapter 3 are confirmed. In the synthesis in chapter 3, it is stated that both the South African and international scholars are concerned with the misuse of linking adverbials and the influence it has on the cohesion and coherence of a text. This study has shown that this is a field worthy of concern and has proven that cohesion and coherence is influenced by the misuse of linking adverbials.

The aims of the study was to determine:

    I.The extent and nature of possible differences between the use of linking adverbials in ENL, ESL and EFL;

    II.The effect of the difference in the use of these linking adverbials on the cohesion and coherence of a text.

As can be seen in the preceding paragraphs, these aims have been accomplished through literature survey, data analysis and correspondence analysis methods.

The following hypotheses were postulated at the beginning of this study:

H1:   There is no difference in the way in which linking adverbials are used in ENL, ESL and EFL argumentative student writing.

H2:   The incorrect use or over- and underuse of linking adverbials in ESL and EFL have no effect on the cohesion and coherence of a text.

As has now been shown and discussed, there is indeed a difference between the use of linking adverbials in the various corpora and the non-standard use, overuse or underuse of linking adverbials have a detrimental effect on the coherence and cohesion of a text. Therefore, both H1 and H2 are rejected. In their a place a new hypothesis can be postulated, namely:

H3:   Linking adverbials are used differently in ENL, ESL and EFL argumentative student writing, and the misuse, overuse and underuse of linking adverbials has a detrimental effect on the cohesion and coherence of a text.

Therefore, the aims of the study have been reached and the hypotheses have been rejected and the research questions have been answered.

6.3. FURTHER RESEARCH AND RECOMMENDATIONS

This study has aimed to do a more complete study of linking adverbials in student academic writing than has been done before. Whereas other studies made mention that a problem regarding linking adverbials do exist, a clear statement has never been made as to why the non-standard use of linking adverbials are detrimental to student academic writing. This study has shown that it has a negative effect on cohesion and coherence and that this makes hard work for the reader and the teacher, who has to make sense of what was written. Though linking adverbials are not the be all and end all of academic writing, having knowledge of them and being proficient in the use of linking adverbials can make a substantial contribution to the cohesion and coherence of a written text. It is, therefore, important that linking adverbials are concentrated on in syllabi, especially in the South African context. It is my recommendation that linking adverbials are combined with a writing skills course early on in secondary education so that those students become more proficient in academic writing before they get to a tertiary level. However, the problem of non-proficient writing skills needs to be addressed at a more fundamental level. Writing skills need to be taught early on and continuously as part of the curriculum in primary and secondary education. OBE concentrates far too much on verbal communication skills, which are also important, but writing skills should not be neglected in favour of this course of action.

Further research can be done on the impact of such a course in schools, or even as to the proficiency of teachers to teach such a course. Furthermore, a more detailed study can be done of linking adverbials on a global scale, as information on this topic is sadly lacking in academic publications.

6.4. CONCLUSION

This study has aimed to shed light on a part of the English language that has been only superficially looked at and investigated. The literature survey has shown that although a few studies have been done in this field, there is no evidence that explains the problem of linking adverbials or a study that has fully investigated the link between linking adverbials, cohesion and coherence. It is my belief that this study, at least in part, is starting to fill this gap. Linking adverbials, when used correctly, can make reading and comprehending a text much easier, especially when having to mark essays, something that teachers and lecturers have to do. This study has also shown that, in South Africa, there is a definite problem regarding academic writing skills and that this problem needs to be addressed in the near future.

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