THE ANALYSIS OF CONTRASTIVE DISCOURSE CONNECTIVES IN TURKISH

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ABSTRACT

AN ANALYSIS OF
CONTRASTIVE DISCOURSE CONNECTIVES
IN TURKISH

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This thesis is a descriptive study of four contrastive discourse connectives in Turkish. The main aim of this study is to analyze the connectives with respect to their meaning and predicate-argument structure and lay out the similarities and differences among contrastive discourse connectives with the help of quantitative analysis. Although the study is limited with contrastive connectives, it will have implications on how to resolve discourse structure in general and illustrate how lexico-syntactic elements contribute to discourse semantics.

Key words: Discourse, Contrastive Connectives, Predicate-Argument Structure, Cohesion, Information Structure

ÖZ

TÜRKÇEDEKİ ZITLIK BAĞLAÇLARININ ANALİZİ

Zeydan, Sultan
Yüksek Lisans, Bilişsel Bilimler Bölümü
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Bu tez, Türkçedeki dört zıtlık bağlacının betimsel bir çalışmasıdır. Çalışmanın amacı zıtlık bağlaçlarını, anlamlarına ve yüklem-üye yapılarına göre incelemek; niceliksel ölçümlerle bağlaçlar arasındaki benzerlik ve farklılıkları ortaya koymaktır. Her ne kadar bu çalışma zıtlık bağlaçlarıyla sınırlı olsa da, genel olarak söylem yapısının çözümlemesine ilişkin bilgileri ortaya koyacak sezdirimleri göstermekte, kelime ve sözdizimsel etmenlerin söylem anlamına nasıl katkıda bulunduğunu göstermektedir.

Anahtar Kelimeler: Söylem, Zıtlık Bağlaçları, Yüklem-Üye Yapısı, Bağdaşıklık, Bilgi Yapısı

DEDICATION

To my beloved husband

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LIST OF SYMBOLS AND ABBREVIATIONS

AO:	Abstract Object
CC:	Contrastive Connectives
CONN:	Connective
D-LTAG:	Lexicalized Tree Adjoining Grammar for Discourse
F. NON.:	Non Finite
F:	Finite
GEN:	Genitive
LOC:	Locative
MTC:	METU Turkish Corpus
NEG:	Negative
NOM:	Nominalizer
NP:	Noun phrase
PASS:	Passive
PDTB:	Penn Discourse TreeBank
POSS:	Possessive Case
PRES:	Present Tense
PROG:	Imperfective Progreesive Aspect
PST:	Past Tense
R:	Rheme
RST:	Rhetorical Structure Theory
SDRT:	Segmented Discourse Representation Theory
T:	Theme
1^{SPL}:	First Person Plural
3^{PL}:	Third Person Plural
$3^{PSİNG}$:	Third Person Singular

CHAPTER I

INTRODUCTION

Over the past years, discourse particles and connectives have been studied from various theoretical perspectives, and our knowledge about their nature has increased considerably.

Discourse may be considered as a cohesive unit beyond the boundaries of sentences. It is widely known that discourse is not just a collection of sentences, but that the composition of discourse has a structured framework. The research in linguistics and computational linguistics has shown a number of structural constraints on discourse as well as how cohesion is established in discourse (Schiffrin, 1987; Joshi, 1987; Asher & Lascarides 1998, Creswell et al., 2002). To understand discourse cohesion, connectives showing explicit relations between textual units are considered the key in most accounts.

In this study we are concerned with Contrastive Connectives (CCs) in Turkish, represented in bold type in the following examples,

(1:1) a. Aslında böyle şeyler onu asla korkutmazdı, **ama** bu sefer ne yapacağını şaşırmıştı.
'Actually such things never scared her, **but** this time she was confused about what to do.'

b. Karne olayı her yerde önemlidir. **Oysa** okuldaki başarıyla yaşamdaki başarı aynı değil.

‘The report card is very important everywhere. **However**, the success at school is not the same as the success in life.’

c. Onları memnun etmelisin, **aksi halde** seni öldürürler.
‘You have to make them pleased, **otherwise** they will kill you.’

d. Sanıldığının **aksine** o bir doktor.
‘**On the contrary** to what is being supposed, he is a doctor.’

e. Bırak! **Aksi takdirde** ben de başlarım.
‘Stop it! **Otherwise** I will start also.’

The data for this study consists of texts randomly selected from newspapers, novels and essays from the METU Turkish Corpus (MTC). The discourse connectives *ama”but”*, *oysa “however”*, *aksine “on the contrary”*, *aksi halde / aksi takdirde* “otherwise” are analyzed semantically and syntactically. We focus on these connectives, showing their predicate-argument relations. Each of the connectives is taken as a predicate, where the left and right hand text spans are taken as arguments (Forbes et al., 2003); thus the discourse relations between these arguments constitute the cornerstone of this study. The first part of the study includes the analysis of the connectives in terms of sense, cohesive links, position in the sentence, and argument structure. While doing the analysis, we have taken into consideration different aspects of discourse such as supplement of the arguments and the linear order of the arguments. The second phase of this thesis consists of comparing the connectives according to these syntactic and semantic criteria. The overall aim of this study is to investigate these CCs as text forming devices and how lexical cohesion contributes to the interpretation of the discourse units linked with these connectives.

This thesis is organized as follows: In chapter 2, general information about corpus linguistics, the METU Turkish Corpus and the scheme of annotations will be introduced. Chapter 3 presents the related theories about semantic relations between clauses such as cohesion (Halliday & Hasan 1976), Rhetorical Structure Theory (RST, Mann & Thompson year, 1988) and a syntactic approach, namely DLTAG (Webber et al., 2000). In chapter 4, the integrated approach chosen for the analysis of discourse connectives will be given. In chapter 5, the typology of Turkish connectives, the importance of linear order, position of the connectives, sense and

argument sharing will be discussed. Chapter 6 will analyze the connectives with respect to sense, lexical relations, subsumed/shared argument structure and positioning. In chapter 7, the results about each connective will be presented and compared with each other based on the analysis presented in previous chapters and some conclusions will be drawn.

CHAPTER 2

METU TURKISH CORPUS

Corpus linguistics is best described in simple terms as the study of language based on examples of real life language use (McEnery & Wilson, 1996). Corpora may exist in two forms: *unannotated* or *annotated* (i.e. enhanced with different types of linguistic information). Unannotated corpora are generally used in language studies but the quality of the corpora will be increased as annotation efforts increase. The significant point in proceeding with an annotated corpus is that it is no longer simply a body of text in which the linguistic information is implicitly present (McEnery& Wilson, 1996). This thesis is based on manual annotations, which may be of help to an ongoing discourse-level annotation project at METU Cognitive Science Department (Turkish Discourse Annotation Project, TDAP).[1]

METU Turkish Corpus consists of 2 million words that are collected from the post-1990 written Turkish samples. Each sample includes 2000 words and each sample ends in which the last utterance ends. All of the selected sources are randomly chosen from the MTC. In the MTC, it is possible to see three samples, which are taken from a single source and, at most, five publications for each author. There are also different kinds of genres in the corpus such as novels, research monographs, interviews or stories. This also provides a great variety in the analysis. The MTC as a whole provides a wide resource on Turkish discourse (Say, Zeyrek, Oflazer, & Özge, 2002; Zeyrek & Webber, 2008)

[1] The Turkish title of which is ODTÜ-MEDİD, Project Manager: D. Zeyrek.

In this research the selected samples are annotated manually, sometimes just by two annotators and sometimes by a number of different people. Annotations reflect the agreements reached by the annotators. The format of annotation used in this research will be as follows: As in example (2:1) the connective will be in bold typeface and underlined. The clause syntactically containing the connective, Arg2, will be in bold typeface and the other argument of the connective, Arg1, will be in italics (Miltsakaki et al., 2005; Zeyrek et al., 2008).

(2:1) [Arg 1-*Onları memnun etmenin çaresi adaklar, kurbanlar sunulmasıdır.*] [Conn-**Aksi halde**] [Arg 2-**gazaba gelip insanlara zarar vermeleri, can almaları, beklenmelidir.**]

"[Arg 1-*The way to satisfy them is to provide them with offerings and sacrifices.*] [Conn-**Otherwise**] [Arg 2-**they can be expected to damage and kill people causing curse.**]"

CHAPTER 3

AN OVERVIEW OF DISCOURSE

The term *discourse structure* refers to the syntactic or semantic relations between discourse units. “In any text that is made up of more than a single utterance, the semantic relations that hold between the utterances are additional parts of the meaning in the text supplementing the meaning that a single utterance contributes.” (Creswell, 2005, p.28). The main relations in discourse can be called in various ways such as *coherence, subject matter, rhetoric or semantic relations* holding between events or propositions. Since the clauses and phrases in a text can be combined into larger discourse units, these relations may be observed between the set of utterances. Thus it is possible to model these utterances on hierarchical tree structures (Webber and Joshi, 1998).

Syntactic and semantic relations play an important role in discourse structure. This section presents various theories about syntactic and semantic discourse relations.

3.1 Semantic Relations between Clauses

3.1.1 Cohesion

> Cohesion occurs where the interpretation of some element in the discourse is dependent on that of another. The one presupposes the other, the sense that it cannot be effectively decoded except by recourse to it. When this happens, a relation of cohesion is set up, and the two elements, the presupposing and the presupposed, are thereby at least potentially integrated into a text.
>
> (Halliday and Hasan, 1976, p.4)

In *Cohesion in English*, Halliday and Hasan state that there are cohesive devices between the sentences so that we can interpret the message successfully. A text is more than the collections of structural relations (Halliday and Hasan, 1976). In text since there are semantic features that form the cohesion, each segment is in harmony with each other. Thus it is difficult to get the same interpretation when we have changed the main features in a text since the unifying relations have also been changed.

Halliday and Hasan (1976) propose that "If every text consisted of only one sentence, we should not need to go beyond the category of structure to explain the internal cohesiveness of a text… In other words, a text extends beyond the range of structural relations." (Halliday and Hasan, 1976, p.7)

Tie refers to the occurrence of cohesive pairs in text. We can analyze a text in terms of its cohesive patterns with this relation. According to Halliday and Hasan (1976) cohesive ties are divided into five categories. These are reference, substitution, ellipsis, conjunction and lexical cohesion.

The first cohesive device is reference. Reference can be considered as the most common linguistic resource for creating text because it expresses the relation between the sentences most within the text (Koch, 2001). The term is used to label a relationship between a linguistic item and something in the world of discourse which it refers to.

According to Halliday and Hasan (1976), while reference to the situation is the primary role of reference, reference to another item is the secondary relation derived from the first one because there is a logical flow from situational reference (in the context of situation) to textual reference (in the surrounding text). Referential items that refer to an entity, event or situation in the surrounding of the text create exophoric reference (Exophora). On the other hand, endophoric reference, (Endophora) is used for reference within the text. Endophoric reference can refer to the preceding text which is called *anaphora*, or to the following text called *cataphora*.

Halliday and Hasan (1976) determined three types of reference: personal, demonstrative and comparative. Personal reference items include personal pronouns (*ben* "I" *sen* "you", *o* he/she/it" *biz* "we", *siz* "you", *onlar* "they"), possessive determiners (*benim* "my", *senin* "your", *onun* "his/her/its", *bizim* "our", *sizin* "yours", *onların* "their") and possessive pronouns (*benimki* "mine", *seninki* "yours", *onunki* "his/hers/its", *bizimki* "ours", *sizinki* "yours", *onlarınki* "theirs") The rest of the other roles are non-generalized. In Turkish since there is not a gender distinction, we use the pronoun *o* "he/she" for male and females.

Demonstrative reference items are determined with respect to the degree of proximity. In Turkish while the demonstratives *bu* "this", *bunlar* "these", *burası* "here" and *şimdi* "now" refer to closeness, *o* "that", *onlar* "those", *orası* "there" and *o zaman* "then" mean farness. According to Halliday and Hasan *this* and *that* generally refer anaphorically to something that has been said before. Even though Halliday and Hasan have not been mainly concerned with exophoric references of demonstratives, they have proposed that "the uses of *this* and *that* in endophoric reference are explainable by reference to their exophoric meaning" (1976, p.59).

Identity, similarity and difference are the main cohesive links of comparative reference. There are two types of comparison: (a) general comparison, which is defined with certain adjectives and adverbs such as *aynı* "same", *benzer* "identical", *ilave* "additional", *farklı* "different", *başka* "else", *benzer şekilde* "similarly" etc. (b) particular comparison, which is expressed with respect to quantity and quality such as *daha iyi* "better" *daha çok* "more", and comparative forms of other adjectives.

The second cohesive device in *Cohesion in English* (Halliday and Hasan, 1976) is substitution. The cohesive tie of substitution is on the grammatical level. Therefore it differs from reference since reference is a relation between meanings; substitution means a relation between words or phrases. One of the major properties of substitution is that the substituted item includes the same grammatical function as the one that it substitutes. According to Hoey (1991) substitution items function in a way very similar to lexical repetitions (like pronoun repetition). Halliday and Hasan discuss pronouns substitution under reference.

There are various types of substitution, which are categorized with respect to its grammatical function. The most common usage is noun substitution. For example the NP *Mehmet* or *güzel elbise* "beautiful dress" can be substituted with the subject pronoun *o* "he" or *güzel olan* "the one that is beautiful" since they are similar in function. The main difference between the nominal substitution and the pronoun is that we can replace anything which is a count noun, either non-human or human in substitution. Cardinal number *one* and substitute *one* are different also. The first *one* may imply deictics such as 'some', 'other' or 'both' or create a contrast with the other numerals two, three, etc. On the other hand, the substitute *one* does not enter into any systematic contrast.

The second type of substitution is verbal substitution. *Do* is the most common verbal substitution in English. Verbal substitution regularly extends across sentence boundaries and functions as linking two sentences by anaphora, exactly in the same way as nominals are substituted by one. In Turkish there is not a common counterpart of *do*.

The third type is clause substitution. In the case of clausal substitution, a whole clause can be replaced with a word. Clausal substitution may extend over other elements in the clause. There are three cases in which clausal substitution can take place: (a) report, (b) condition and (c) modality (Halliday & Hasan, 1976). In Turkish *öyle* "so" and *değil* "not" are most common clausal substitution forms.

The third relation related to cohesive device is ellipsis. Like substitution, ellipsis is a relation within the text, and commonly the presupposed item is present in the previous text (Halliday, Hasan, 1976). "Ellipsis can be regarded as substitution by zero, rather than substituting some item by a counter" (Butler, 2003, p.353). Ellipsis is divided into three categories: (a) nominal, (b) verbal and (c) causal. The structure of ellipsis consists of the head with an optional modifier (Premodifier or Postmodifier). It can be said that nominal ellipsis is concerned with the upgrading of a word functioning as Deictic, Numerative, Epithet from the status of Modifier to the status of Head.

In nominal ellipsis, the source of information is the prior nominal group. According to Halliday and Hasan (1976), a nominal group that is elliptical presupposes a previous one; therefore it is cohesive. In Turkish *her biri* "each" has the sense of everyone or just one, *her ikisi* "both" has the sense of two and *hepsi* "all" refers to everything.

Ellipsis within the verbal group presupposes one or more words from the prior verbal group. For example the lexical verb 'be' can be used without its complement. The main difference between verbal ellipsis and lexical ellipsis is that there is only one lexical element and that is the verb itself in verbal elements. There are possible selections such as finiteness, polarity, voice and tense, which must be signaled when a verbal group is used.

It is also possible to see ambiguous situations within verbal groups such as *have*. It may be either finite present or non finite. The distinction between elliptical and non elliptical forms is obtained from the preceding clause. According to Kornfilt (1997) in Turkish ellipsis does not require the utterance of an antecedent. For example direct objects are not marked on the verb in the sentence.

There are also occasions on which the whole clause is elided. This type is generally used in answers to questions. For example when any *Yes/No* question is asked, the answer may just consist of Yes or No in which the previous clause is elided. It is also possible to see full clause ellipsis in Turkish.

Brown and Yule (1983, p.199) discuss the endophora and exophora distinction from a different point of view. They claim that since the text creates a mental representation of discourse in which there are representations of the first referents based on the first mention, the relation between endophora and exophora is vague. [2]

[2] Martin (1992) works on the participant identification in discourse. Unlike Halliday and Hasan, Martin uses cataphora for reference to a text which goes beyond the group in which the other member of the cohesive relation exist. He also explains substitution and ellipsis from a lexico-grammatical perspective rather than discourse semantics.

The fourth category of cohesion is conjunction. It is not simply an anaphoric relation but a different type of semantic relation in which "what is to follow is systematically connected to what has gone before" (Halliday and Hasan, 1976, p.227). It does not depend on a particular relation. There are various ways to explain a relation by using conjunctions. *Succession in time* or *time sequence* is some of these cohesive relations in discourse as in the example "after the battle, it snowed." Adverbial expressions which relate two separate sentences are another way of expressing the relations such as "*as a result*" or "*instead*". The meaning of a conjunctive adjunct extends over the entire sentence unless it is rejected.

The typology of conjunctive elements in English are divided into three types by Halliday and Hasan (1976). These are adverbs including simple adverbs (but, and, so, etc…), compound adverbs (accordingly, actually, etc...); other compound adverbs (furthermore, anyway, etc…); prepositional phrases (on the contrary, as a result, etc…); and lastly presuppositional expressions with that or other reference item (as a result of that, instead of that). The typology of connectives in Turkish will be given in Chapter 5. Conjunctive relations can be external or internal. The external relations may occur between two events or situations. Internal relations occur in the forms of interaction between speaker and hearer. This division is more obvious in temporal relations.

Halliday and Hasan name the functions of the conjunctive elements in four types: additive, adversative, causal and temporal (1976). Such a categorization is also explained in the PDTB sense list (Prasad et al., 2007). In this list, there are four main semantic classes: temporal, comparison, contingency and expansion. The related classifications in PDTB are given in Appendix A.

Lexical Cohesion

> However luxuriant the grammatical cohesion displayed by any piece of discourse, it will not form a text unless this is matched by cohesive patterning of a lexical kind.
>
> (Halliday & Hasan, 1976, p.292)

In *Cohesion in English,* lexical cohesion is described as the result of chains of related words that contribute to the continuity of lexical meaning (Halliday and Hasan, 1976). Under this heading they include different kinds of semantic relationships that can exist between lexical items.

Halliday and Hasan's model of lexical cohesion is based on a division of various lexical cohesive devices into two main categories: reiteration and collocation. *Reiteration* includes the repetition of the same word as in *book-book*, the use of a synonym as in *sword - brand*, the use of a superordinate as in *chair- furniture* and the use of a general word as in '*We all kept quiet. That seemed the best move'*. All these devices have the function of reiterating the previous item.

According to Halliday and Hasan, collocation is "cohesion that is achieved through the association of lexical items that regularly co-occur." (Halliday and Hasan, 1976, p.284). The cohesive tie is recognized when the lexical items appear in similar lexical environments or when they are related lexico-semantically. For example, *boy* and *girl* are cohesive because they have opposite meanings, but *laugh* and *joke* are also cohesive since they are "typically associated with each other" (Halliday & Hasan, 1976, p. 284- 286).

The main collocation relations are synonymy or near synonymy *disease - illness*, antonymy *sit - stand*, hyponymy *chair - table* and meronymy *part - whole relation*. Additionally, in Hasan's model (1984) a new category, the *instantial category*, is introduced to explain the relations which are not general but formed by the text. This class consists of the relations of equivalence *the sailor was their daddy*, naming *the dog was called Toto* and semblance *the deck was like a pool*. According to Tanskanen the crucial point about Hasan's study is that it recognizes the chain forming property of lexical cohesion, instead of concentrating on individual ties (2006).

Similarly in *Patterns of Lexis in Text* (1991) Hoey presents a similar approach to lexical cohesion. Hoey's classification is different from Halliday and Hasan's in a way that all types of reiteration recognized by Hoey are lexical in nature, but also include some grammatical items such as personal and demonstrative pronouns.

Under *complex paraphrase*, *Hoey discusses* some relations which are considered as instances of collocation by Halliday and Hasan. In this type, even though an item is missing in the text, we can acknowledge a complex paraphrase link between the other items by bringing the missing item into the text. For example if *hot* is the missing item in a text, we can still relate *cold* and *heat* in a cohesive way.

3.1.2 Rhetorical Structure Theory

Another theory of coherence relations is Rhetorical Structure Theory (RST), a model of text organization that was proposed by Mann and Thompson (1988). In RST the belief is that texts are made up of hierarchically organized groups of propositions. These propositional groups have internal rhetorical structures. According to Mann and Thompson (1988) most of the r-structures contain a core part (called nucleus) and secondary part (called adjunct or satellite). The common r-structures between nucleus and satellites are divided in such types: (a) elaboration (b) conditional, (c) circumstance, (d) list, (e) narrate, (f) reason, (g) concession, (h) opposition, (i) purpose, (j) response, and (k) contrast. RST may be seen as a more general coherence model of discourse analysis, whose basic assumption is based on that a discourse is coherent if and only if there are some rhetorical or semantic relations between its constituent parts.[3]

The diagrams are used to show RST relations; the asymmetric nucleus-satellite relation is shown with an arrow from the satellite to the nucleus. In the following frame the evidence relation is given according to an RST diagram. As it is purposed, the satellite presents evidence for the proposition (Mann and Thompson, 1987).

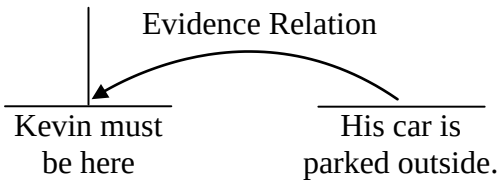

Figure 1 - Evidence relation (Mann and Thompson, 1987)

[3] The RST relations are given in Appendix B.

This frame displays one of the most frequent structural patterns in RST such that two spans of text (generally adjacent) are related, and one of them has a specific role relative to the other. RST posits an "Evidence" relation between the two spans. It is also suggested that the claim is more necessary for the text than the specific evidence, and "this essentiality is represented by calling the claim span a nucleus and the evidence span a satellite" (Mistry and Laury, 2003, p.41).

In RST, atomic text spans are basically clauses. Complex text spans are structures called "schema applications" (Knott et al., 2000). A schema application for a nucleus satellite relation includes a set of adjacent text spans, one of which is a nucleus and the rest of which are linked to this nucleus by applications of a given nucleus-satellite relation. According to Knott and his colleagues, there are three central assumptions underlying span structure in RST: (a) compositionality (b) continuous constituency and (c) tree structure.

The first assumption, compositionality, displays how the meanings of the span in a complex text are extracted from the semantics of its essential spans. According to this assumption a complex span containing a nucleus and several satellites can be related to another text span with a rhetorical relation if and only if its nucleus span can also be associated to the others (Noordman, 2001).

Secondly, continuous constituency deals with linking the distances over which relations are allowed to apply. Basically, there are two possibilities that RST requires: that the nucleus (N) and satellite (S) of a relation (R) must be adjacent text spans or when they are not adjacent, the text spans intervening between N and S must be linked to N as satellites of the relation R (Noordman, 2001).

The third assumption, tree structure, states that each text span must be engaged in exactly one schema application. This prevents overlapping complex spans and ensures the linkage of each sub-span to any other spans. Basically it indicates that a coherent text is a tree of schema application.

Multiple relations can be arranged into composite structures. Such compositions of elementary relations are analyzed according to four constraints: completeness,

connectedness, uniqueness and adjacency. As Mann and Thompson (1987) note, completeness illustrates that the higher level of the structure contains all the text spans constituting the entire text. Connectedness shows that each text span is either a minimal unit or a component of a composite structure. Uniqueness dictates that each structure includes a different set of text spans, and adjacency introduces that the text spans of each structure constitute one text span.

3.2 Syntactic Relations

Lexicalized Tree Adjoining Grammars (TAGs) which associate sets of *elementary trees* with lexical items define linguistic units of extended domain of locality that has syntactic relevance. Because of their two fold perspective on syntactic description, "TAGs are a fruitful formalism to explore discrepancies between syntactic properties and the semantic ones" (Schabes, 1996).

3.2.1 Tree Adjoining Grammar (TAG)

TAG derives complex structures by composing simple structures (Joshi, 1985). These structures consist of phrase structure trees, called in the theory *elementary trees*. They appear in two manners: *Initial trees*, which are representations of simple sentences and *auxiliary trees* which are the recursive structures of the language. Auxiliary trees are built up by other trees, both elementary and derived trees that are combined with the operation called *Adjunction*, shown by one star (*). This operation replaces an internal node with a new tree. The other operation is called *Substitution* shown by a downward arrow (↓) replacing a leaf with a new tree. A TAG can consist of finite sets of elementary trees with the adjunction operation. The figure below illustrates the initial and auxiliary trees.

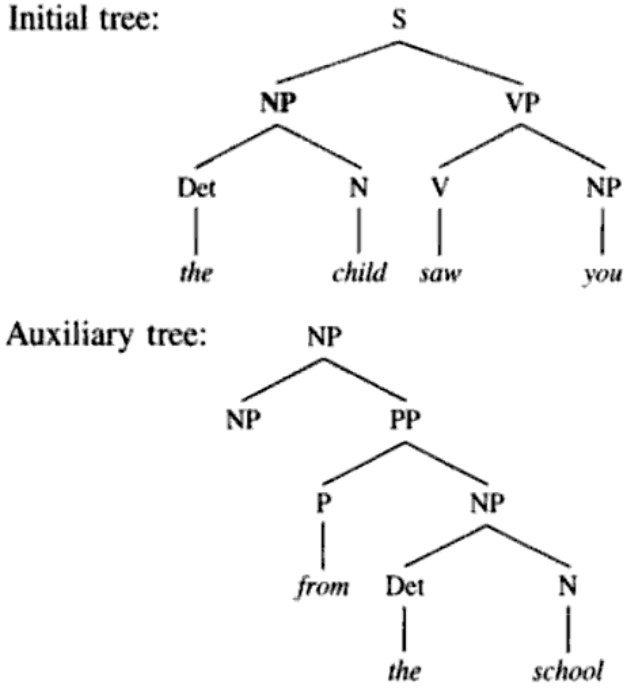

Figure 2 - Initial and Auxiliary Tree (Kronch & Joshi, 1985)

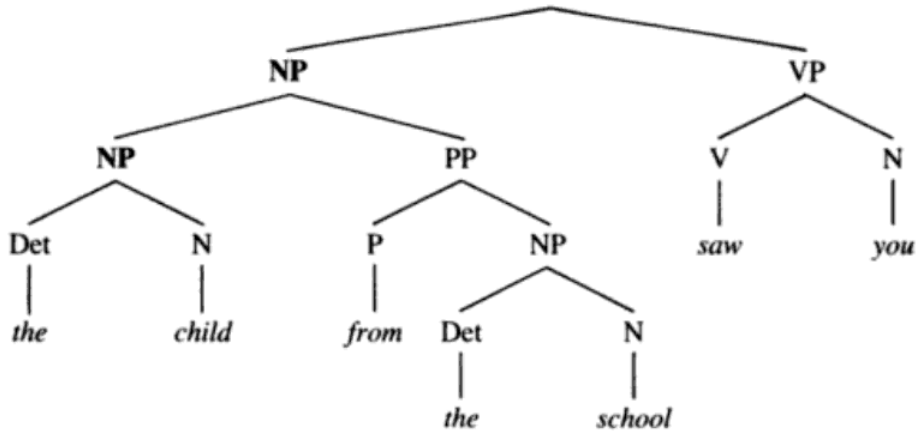

Figure 3 - The tree resulting from adjunction

As it is observed in Figure 3, auxiliary trees may include a root node which may be any phrasal category. On their frontier all their nodes are expanded to terminal symbols except the foot node (NP) which is identical to the root node. According to Kroch and Baltin (1989) an auxiliary tree whose root node is in category X may be attached to any node in another tree whose category is also X.

3.2.2 Lexicalized Tree Adjoining Grammar (LTAG)

Lexicalized Tree Adjoining Grammars (LTAG), as defined in Joshi (1985) and Schabes, and Joshi (1988 consist of a set of elementary trees associated with lexical items anchoring them. In LTAG a sentence consists of a number of structures which can be combined infinitely many ways since each structure is associated with at least one lexical item.

In LTAG, there are two operations as in TAG: substitution (↓) and adjoining (*). Consider the elementary trees in the LTAG in Figure 4.

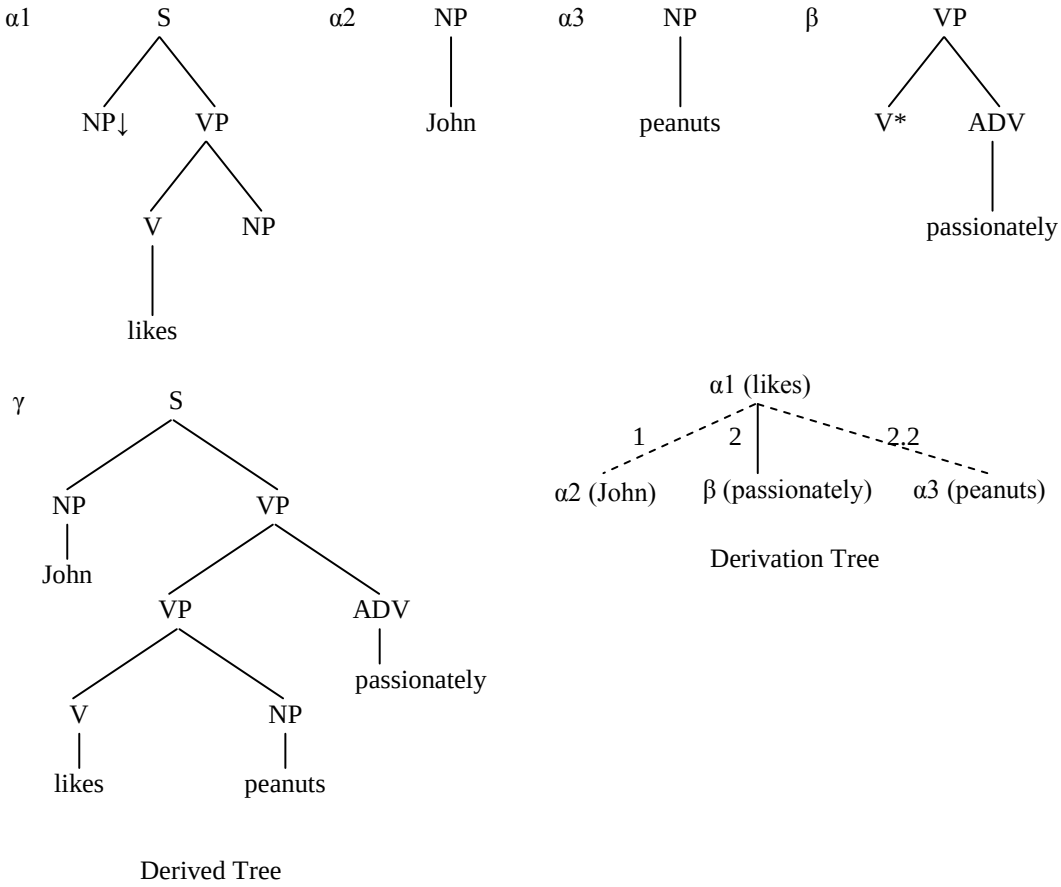

Figure 4 - Some LTAG Trees and a derivation (Joshi & Schabes, 1988)

The derivation trees in LTAG enable a natural representation for compositional semantics. The tree corresponding to *John likes peanuts passionately* (Joshi and Shanker, 1999) is derived by starting with an elementary tree for *likes* and then substituting the trees for *John* and *peanuts passionately* at the nodes of the tree α1 and adjoining the tree for *passionately* at the VP node of the tree α1. It is shown that in the tree α1, S dominates the VP node and the VP node dominates the V node. On

the other hand, in the tree γ, the VP node that is dominated by S, after adjoining the tree *passionately*, does not directly dominate the V node (Joshi & Shanker, 1988).

3.2.3 Lexicalized Tree Adjoining Grammar for Discourse (DLTAG)

Discourse connectives can be described as detecting the relation between two discourse units. In DLTAG the discourse connective is explained as a predicate that takes the discourse units as its arguments. In other words, connectives are the lexical elements that anchor the predicative relation between the discourse arguments. (Webber et al., 2000). In DLTAG general inferencing and anaphora cause the compositional part of the discourse meaning to separate from the non-compositional contributions. "This division is a key insight of the DLTAG approach to discourse structure which simplifies the set of structures that can be assigned to a discourse" (Creswell, et al., 2002, p.303)[4]. DLTAG is a lexicalized approach to discourse relations. It enables a sight of how lexical elements anchor discourse relations, and how other parts of the text provide arguments for those relations (Miltsakaki et al. 2005).

In DLTAG, anchor and its sub categorization frames are represented by extended projections. It is possible to associate an anchor with more than one tree: each tree in this tree family reflects different syntactic constructions in which that anchor can appear (Webber, 2004).

The elementary trees of DLTAG are anchored by discourse connectives whose substitution sites correspond to their arguments. The arguments include abstract objects (AO) such as a proposition, fact, eventuality and situation (Webber, 2004). In Figure 4, it is shown that each discourse connective finds at least one of its argument structurally, and the argument that substitutes into one of the leaf nodes in the tree is attached to the tree by the discourse connective. In addition, as it is seen in Figure 5, sometimes the other argument may be found anaphorically. Webber et al (2000) refers to connectives that find one of their arguments anaphorically as anaphoric connectives, the others as *structural connectives*.

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[4] Anaphora Processing: Linguistic, Cognitive, and Computational Modelling by Branco, McEnery, Mitkov (eds)

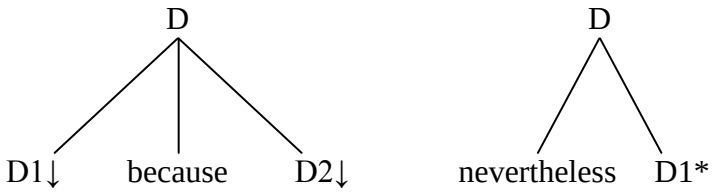

Figure 5 - Elementary Tree: because and nevertheless (Creswell, et al., 2002)

There are various lexico-syntactic elements known as predicates on clausal arguments in D-LTAG: (a) subordinate conjunctions and other subordinators; (b) the lexico-syntactic anchors of parallel constructions; (c) some coordinative connectives or some specific verb forms.

Auxiliary trees provide recursion and allow elementary trees to be elaborated. The abstract objects such as events, situations and states that do not directly precede the following argument are connected with auxiliary trees in D-LTAG. According to Webber et al (2003) such extended representations are built with coordinative conjunctions or null connectives. Therefore, D-LTAG has taken both coordinate conjunctions and null connectives to anchor auxiliary trees.

Another function of the auxiliary tree for D-LTAG is that the discourse connective may be associated with only a single discourse clause as in the example of the connective *nevertheless* in Figure 5. Zeyrek et al (2008) suggest that such discourse connectives establish an anaphoric relation between the interpretation of the clause to which they adjoin and the previous discourse.

In short, the main difference of DLTAG from the other theories is in anchoring discourse relations with structural connectives, adjacency and anaphoric connectives. The distinction between anaphoric and structural arguments is a theoretical one based on a discourse lexicalized tree- adjoining grammar.

3.3 Other Studies

The number of works dealing with discourse production and comprehension has been increasing in the last years. The general idea is that there is a strong relationship between the flow of information in a text and the structure of the text. It

is seen that the use of anaphora studies on discourse structure has attempted to associate different kinds of meaningful relations. As a result, lots of theories have appeared.

One of the first studies in this area belongs to Grosz& Sidner (1986). They claim that the purpose of the speaker is the starting point for discourse. Their theory suggests that a structural dominance relation exists between one discourse unit and those units that support its purpose. In addition, a structural priority relation exists between a discourse section and the ones whose intentions require preceding accomplishment.

As it is illustrated in the theory of discourse structure (Grosz and Sidner, 1986), the segments of discourse that reveal participants' intentions and text organization are important for the meaning relation to be solved. *Focus space* and *transition rule* are crucial instances in this model. A focus space is associated with each discourse unit. As a discourse is built up, speakers pass from one focus to another and it is here that the concept of transition rule becomes relevant. Grosz and Sidner (1986) refer both to linguistic structure and to the deducible and attentional structures. According to Miller (2006), the first deals with the purpose of the speaker in producing a particular discourse and the second displays the prominence of entities, properties, relations, and discourse purposes and intentions.

Another influential study in discourse studies belongs to Gardent (1997), Polanyi & van den Berg (1996) and Schilder (1997). They were concerned with both discourse processing and discourse semantics. They focused on how each new segment of a discourse would be correctly attached to a changing, interpreted discourse structure. According to Gardent (1997) in order to adjoin an incoming discourse unit to an existing discourse structure, the semantic boundaries require certain conditions such as the compatibility of the semantic interpretations between the substituted unit and the prior discourse unit. For instance, we cannot exchange a unit on the right frontier of an existing discourse tree with an incoming elementary discourse tree unless the semantic information associated with the unit on right frontier unifies

with the semantic information associated with the elementary discourse tree (in Marcu, 2000).

Segmented Discourse Representation Theory (SDRT) developed by Asher and Lascarides (1998) is yet another important discourse theory. In SDRT it is possible to represent the discourse units introduced by means of inferences that are contextually relevant but not textually evoked background information. Rhetorical and coherence relations can carry inferential information of this kind. SDRSs (Segmented Discourse Representation Structures) are composed of units of discourse structures built up from the sentences of the text forming the input to their construction, and information regarding the rhetorical or coherence relations. Asher (1999) has claimed that while semantic factors are significant to determine discourse structure, sentence internal syntax does not play a major role. According to this claim dependencies encode semantics as mush as syntax, and the functors together with modifiers within the complement and adjunct frames related to lexemes in the dependency tree uniquely determine the compositional semantics of all phrases (in Henrichsen & Skadhauge, 2006).

CHAPTER 4

METHODOLOGY

In this study, our starting point is the DLTAG Theory advocated by Creswell et al. (2002), Forbes et al. (2003) and Forbes & Webber (2002). We also make use of Halliday and Hasan's (1976) coherence relations. This chapter gives information related to the main annotation principles and the integrated approach of this thesis to connectives and their arguments. The connectives' argument structure, their senses, and the cohesive links in the arguments of the connectives are the main topics of this chapter.

4.1 The Data

The Turkish data is taken from the samples in the MTC. First, the samples that contain discourse connectives (to be explained in 4.2) have been chosen and annotated manually. Mostly two annotators, sometimes a number of different people, did the annotations. After each annotator has completed their preliminary annotations, the commonalities were discussed together. During the discussions, either one of the annotations was agreed or new annotations was proposed. The examples which follow are the agreed annotations.

In this thesis we aimed to analyze different CCs showing different discourse properties. Our choice was guided by the need to examine discourse connectives which appear to be maximally different in terms of their grammatical category; we chose two subordinating conjunctions, two discourse adverbials. We worked on a

subset of MTC which contain texts chosen randomly. Table 1 shows the number of the connectives in the whole corpus and our sub corpus as well as their category.

Table 1 - The total number of the CCs in the MTC and our Sub-Corpus[5]

Connective	Grammatical Category	MTC	Our Sub-Corpus
ama	Simple conjoiner (coordinating conjunction)	6109	60
oysa	Simple conjoiner (coordinating conjunction)	662	60
aksine	Discourse adverbial	107	57
aksi takdirde / aksi halde	Discourse adverbial	46	46

In determining the number of connectives in the sub-corpus, we followed the following steps: First, we manually eliminated the non discourse connectives in our data, then, all the occurences of *aksine*, *aksi halde* and *aksi takdirde*, amounting to 57 and 46, respectively, were included for the analysis. We have chosen 60 samples for *ama* and *oysa* to create a comparable amount with the other connectives. The choice of the *ama* and *oysa* examples was made randomly.

4.2 How to Define Discourse Connectives

Discourse connectives have been referred to as cue phrases, discourse markers or discourse particles (Stede et. al, 1998). One of the most important issues concerning any study of discourse connectives is the issue of defining them.

[5] The amount of the connectives retrieved from the MTC includes both discourse connectives and non discourse connectives since this differentiation has not been done by the TDAP group yet.

When we look at the literature we see a wide range of views on how discourse connectives should be labeled and defined. Drawing the line between connectives and other expressions, classifying discourse connectives and describing and identifying their sub-types can cause enormous difficulties.

According to Schiffrin (1987) discourse markers have an indexical function in discourse:

> markers index the location of an utterance within its emerging local contexts. It is the indexical function of markers which is the key to understanding why they are used: markers propose the contextual coordinates within which an utterance is produced and designed to be interpreted. And finally, it is not only because markers propose such coordinates, but because they propose more than one contextual coordinate at once, that they contribute to the integration of discourse-to discourse coherence.
>
> (Schiffrin, 1987, p.315)

According to Creswell at al (2005) discourse connectives are associated with the AO interpretations of two discourse segments. Determining and annotating these segments gives information about the discourse structure. The following quotation (Creswell et al., 2005) gives a clear idea of what discourse connectives are and describes our effort best:

> Because discourse connectives are some of the clearest indicators of discourse structure, annotating the arguments of the relations they convey provides information about those arguments and about the range of possible discourse structures.
>
> (in Branco, McEnery & Mitkov, 2005, p. 309)

In this study the following facts have assisted us in the identification of discourse connectives in our data.

- Discourse connectives have pragmatic and interactional functions.
- They signal a semantic relationship between the components of the discourse.
- They operate beyond clause structure.

- They combine abstract objects (AOs)[6]

Together with TDAP group, we have started the analysis by determining which text spans we should include as arguments and which ones to exclude. Johnstone (2002) acknowledges the importance of inclusion and exclusion in discourse analysis and states:

> Every choice about what to count as a text for analysis is a choice not only about what to include but also about what to exclude. Such choices what and how much to treat as a complete unit and where to draw its boundaries have important ramifications for the conclusion we draw.
>
> (Johnstone, 2002, pg. 19)

A connective contains two and only two arguments[7]. It is also possible to see a sequence of clauses or sentences that form a legal argument. The basic unit in which an AO is realized is a tensed or untensed clause.

In the following example (4:1.a) the connective *aksine* signals a contradictory relation between two discourse units. In addition, it builds lexically contrastive senses with the words *dışımızda-aramız* "outside us-among us".

(4:1) a. *Bu cinayetler bu katliamlar, söylendiği gibi, dış mihrakların işi değil.* **Aksine suçlular aramızda.**

'*These murders, these slaughters are not the work of outside forces as claimed.* **On the contrary, the real convicts are among us**.'

We do not take the expressions as discourse connectives if they introduce just one AO. Therefore expressions combining noun phrases do not qualify as discourse connectives. As in the following example (4:2.b) *aksine* consists of only one AO and does not form any relation between the discourse units.

[6] The typology of Abstract Objects is given in Appendix C (Asher, 1993, p.57).
[7] It is an empirical issue to find out whether discourse connectives have more than two arguments in other languages.

b. **Kralın <u>aksine</u>** *oğlu bizden yanaydı*.

'**<u>On the contrary</u> to the king**, *his son was with us*.'

The TDAP group, the preliminary research of which guided this thesis, basically followes the annotation rules in the PDTB Manual[8] (Prasad, Miltsakaki, Dinesh, Lee, & Joshi, 2007) and included (a) all subordinating and coordinating conjunctions, (b) certain adverbials that convey a relation between events or states. Annotated arguments can be groups of sentences, single sentences (a main clause and its subordinate clauses) and single clauses (tensed or non-tensed). As in example (4:2), *ama* conveys a contradictory relation between two states. On the other hand, in example (4:3), *aksine* relates an entity with a state. By the convention used by the TDAP group, we do not mark this as a connective.

(4:2) *Kaptandı,* **<u>ama</u> yüzme bilmezdi amcam**.

'M*y uncle was a captain,* **<u>but</u> he doesn't know how to swim**.'

(4:3) **Basketbolcuların çoğunun <u>aksine</u>** *futbolla yakından ilgilisin*.

'Y*ou are interested in football* **<u>on the contrary to</u> most of the basketballers.**'

As already mentioned, the expressions that are included in this study are the contrastive connectives *ama , oysa , aksine aksi halde/aksi takdirde* "otherwise". These are the connectives which can operate at the discourse level and create contradictions within the text.

4.3 Supplementary Material

Both in the PDTB and the TDAP, supplementary materials, i.e. text spans that support the arguments, are optional tags for situations where the annotator wants to mark textual spans that s/he considers to be useful and supplementary information

[8] Though the implicit connectives are studied in PDTB, we have not analyzed implicit connectives in this study.

for the interpretation of an argument (Prasad et al., 2007). Supp 1 and Supp 2 are used within brackets related to the arguments. In the following example (4:4) the part where the anaphora is resolved is supplementary. Here, the pronoun *o* "he" finds its reference in the sentence *Ya Neslihan?* "What about Neslihan?", which is taken to be the supplementary material to Arg1. In the next example (4:5), Supp 2 is the expansion of Arg 2.

(4:4) [$_{\text{Supp 1}}$ Ya Neslihan?] *O da unuttu.* **Ama o Neslihan'ı bir türlü unutamadı.**

[$_{\text{Supp 1}}$ What about Neslihan?] *She also forgot.* **But he could never forget her.**

(4:5) *Yine misafir ayakları olacaktı.* **Oysa keyfimize göre takıldık**, [$_{\text{Supp 2}}$ aslan gibi hesabımızı ödeyip çıktık.]

'*We thought we would be behaved as a guest*. **However, we hang up in cheerful mood.** [$_{\text{Supp 2}}$ We paid our own bill and left account.]'

The interpretation of some pronouns such as "*bu* "this" and *o* "that" in the preceding context are marked as supplementary material. In example (4:6), "lots of irregularities were seen prior to us" is marked as Supp 1 since *bunlar* "these" is resolved in that conjunct.

(4:6) [$_{\text{Supp 1}}$ "Bizden önceki dönemde çok usulsüzlükler yapıldı.] *Öncelikle bunları araştırmalı, daha sonra yeni atamalar yapılmalıdır*. **Aksi halde bir sürü usulsüz atamanın üzerine yeni ve sağlıklı bir yapıyı oturtamayız**" diye konuştu.

[$_{\text{Supp 1}}$ "Lots of illegal acts were attempted before us.] *Firstly, these must be searched, then the new appointments must be actualized.* **Otherwise, we cannot set a new and healthy constitution on top of the illegal appointments.**" he said.

When there is supplementary material between Arg 1 and Arg 2, that clause is marked as *nonadjacent.* This also shows that the distance of Arg 1 to Arg 2 can vary in discourse. Such a nonadjacent case is demonstrated in (4.7).

(4:7) *Hava biraz güneşli olsaydı*, [$_{\text{Supp 1}}$ birkaç tane kuş görebilseydi sokakta, belki onu bugünlük idare edecek kadar teselli bulabilirdi. Böylece bir günü de daha az acıyla, daha az sıkıntıyla devirir, gecenin ve yatağının şefkatli kollarına kendini daha rahat bırakabilirdi.] **Aksine hava puslu, kasvetli ve karanlıktı.**

'I*f the weather were a bit shiny,* [$_{\text{Supp 1}}$ if she could have seen a few birds outside, perhaps it may have given her some comfort for the day. Then she would have been able to pass another day of less pain and stress; and find comfort from the night in the safety in her bed.] **On the contrary, the weather was foggy, bleak and dark.'**

4.4 Criteria for Analysis

Our main concern is to list the semantic and syntactic properties of these connectives chosen for analysis in discourse. From the syntactic perspective (a) the position and, (b) argument dependencies of the connectives will be described. From the semantic perspective, (a) sense and, (b) lexical relations (in the sense of Halliday & Hasan) of the text in which CCs occur will be identified.

Another matter of concern is whether there is any lexical clue (in the sense of Halliday & Hasan) in discourse that helps us to assign particular functions, in other words, whether certain cohesive relations can be associated with particular connectives.

In assigning senses to connectives, we take into account the discourse the CCs occurred in. As we will show below, an individual connective can show a number of disourse relations.

The position of a connective is determined according to where it occurs in the text. We try to explain the features of this ordering in discourse keeping in mind the information structure of the connectives.

Our aim in this study is to form a grouping of the chosen CCs in terms of syntax and semantics. From the syntactic perspective a) position and b) argument dependencies of the connectives will be described. From a semantic perspective a) sense and b) lexical relation will be identified.

CHAPTER 5

DEFINING DISCOURSE CONNECTIVES AND THEIR SEMANTIC AND SYNTACTIC FEATURES IN TURKISH

5.1 Typology of Connectives in Turkish

There are four classes of connectives in Turkish[9]: simple conjoiners, simple subordinators, paired subordinators and discourse adverbials. (Zeyrek & Webber 2008).

Simple Conjoiners

Simple conjoiners relate the clauses that are in the same syntactic form. They are sentence medial and are related to the second clause (2008). Most of time the usage of comma provides this affinity since it specifies the boundaries of the arguments. In *simple conjoiners* the linear order of the arguments are Arg 1 and Arg 2. *Ama, fakat* "but", *çünkü* "because", *oysa* "despite", *önce* "before", *ve* "and" are some of the examples of simple conjoiners. In the examples below (5:1 & 5:2), these connectives are exemplified. The italic parts show Arg 1 and the bold clauses show Arg 2. The connectives are underlined and bold.

[9] The classification of the connectives is taken from Zeyrek and Webber (2008).

(5:1) *Karayolları kışın ilk defa yol yapıyor*. **Oysa bu mevsimde sadece kar mücadelesi için çalışmalar yapılırdı.**

'The General Directorate of Highways is paving the roads for the first time in this winter. **However, in this season only snow fight used to be done.'**

(5:2) *Aslında böyle şeyler onu asla korkutmazdı,* **ama bu sefer ne yapacağını şaşırmıştı**.

'*Actually such things have never scared her*, **but this time she was confused about what to do.**'

Simple Subordinators (Converbs)

"Suffixes are the primary means forming subordinate clauses in Turkish. Most of the subordinating suffixes are nominalizing suffixes" (Göksel & Kerslake, 2005). Subordinating suffixes are attached to the verbs to compose nominals. According to Göksel and Kerslake (2005) each verb including a subordinating suffix is non finite. There are three types of non finite verb forms: a) verbal nouns that are the non finite verbs of noun clauses b) participles which are the non finite verbs of relative clauses c) converbs which are the non finite verbs of adverbial clauses.

In a similar vein, according to Zeyrek and Webber (2008) subordinate clauses are ungrammatical if they are not used with a main clause. Though most of the subordinating suffixes in Turkish form just one subordinate clause on their own (see 5:3), they can also form a subordinating clause together with a postposition forming a complex subordinator (see 5:4).[10]

[10] The examples including subordinating suffixes will be given in morpheme by morpheme glosses.

(5:3) **Kapım çalın<u>dığında</u>** *onu hatırlamaya çalışıyordum*.

door-POSS knock-PASS-PST-NON.F-CONN him remember-NON.F-DAT-PROG-PST- 3^{PS}

'*I was trying to recall him* **<u>when</u> the doorbell rang.**'

In the example (5:3), the second argument attached to the connective is a subordinate clause that is formed by complex suffix *-DIğIndA* "when". *DIK* is a suffix that shows present or past time.

Complex Subordinators

Complex subordinators involve a bigger set than the set of simple subordinators. Complex subordinators are composed of a lexical item (eg. a postposition) and a nominalizing suffix or a case suffix. The suffixes *-mA* and *-mAk* can form verbal nouns and converbs. However these two suffixes differ in terms of possessive markers since *-mA* can be followed by one of the possessive markers while *-mAk* cannot combine with them (Göksel and Kerslake, 2005, p.135). Therefore if the verb of the clause does not have a subject, it is nominalized with *-mAk* since it does not depend on any possessive marker. On the other hand if it has a subject, it is nominalized with *-DIK* (past) or *–mA* (Zeyrek, & Webber, 2008). There should be subject-verb agreement in this structuring. The linear order of the arguments of a complex subordinator is Arg 2-Arg 1. The nominalizer, the possessive and the case suffix are generally attached to the non-finite verb of ARG2. The connective is postposition. For example in (5:4), *için* (the postposition meaning purpose) is used with a nominalizer.

(5:4) **Kontrolünü kaybet<u>tiği için</u>** *çok pişmandı.*

Control-GEN lose-F-PST-3^{PSING}-CONN much regret-PST-3^{SP}

'*He was so regretful* **<u>due to</u> losing his control**.'

Discourse Adverbials

The clausal connectives, *çoğunlukla* 'usually', *mutlaka* 'definitely, *maalesef* 'regrettably' are interpreted only with respect to their matrix sentences. On the other hand, according to DLTAG-based analysis and Zeyrek and Webber (2008) disoourse adverbials (alternatively, anaphoric connectives access one of their arguments anaphorically. They can take an AO in an adjacent (as in example 5:5) or non adjacent position.

Another important claim related to anaphoric connectives is that they can access the inferences in the previous discourse (Webber et al 2003). Neither the discourse connectives nor clausal connectives have this property In example (5:5), the discourse adverbial *aksi takdirde* "otherwise", accesses the inference that Cyprus has not joined the European Union and hence has not get the advantages of this membership.

(5:5) Kıbrıs'ın tümünün AB'ye girmesinden en çok kazançlı çıkan Kıbrıslı Türkler olur. **Aksi takdirde, geleceği olmayan bir ülkede yaşamak zorunda kalırlar.**

'*Cypriot Turks would profit most if the whole of Cyprus joined the EU.* **Otherwise, they would have to live in a country with no future**.'

5.2 Position of the Connectives Analyzed In the Study

Contrastive connectives analyzed in this study belong to the grammatical category of simple conjoiners, which are generally used in sentence initial or medial position. The sentence-medial position can also be fullfilled by a number of discourse adverbials, which can be seen in non-initial positions.

For English, Quirk et al (1985) state that the normal position of most adverbial connectives is initial and some are actually restricted to this position. Unlike English, Turkish allows a wide positioning of discourse connectives.

In this research we have analyzed the connectives in terms of four different positions: (a) sentence initial (b) sentence medial (c) sentence final (d) free in Arg 2. All of these are exemplified in the following examples. In the MTC one of the frequent CCs, *oysa* generally appears in sentence initial position as seen in example (5:6). But some of *oysa'*s appear in the medial position, and there are cases when it occurs at the end of the sentence. From the point of frequency in this analysis, the initial position prevails.

(5:6) *Bana yepyeni bir hayat sunuluyor,* içine de girmiş bulunuyorum. **Oysa benim istediğim, bu yaşıma dek yaşadığım, seçtiğim bir hayat değil ki bu**! dedim.

'A *brand new life has been introduced to me* and I am already in it. **However, this is not what I want, not what I have experienced up to now and what I have chosen**, I said.'

In example (5:7), *ama* is used in medial position. The analyses that will be presented later in the thesis also display that *ama* is mostly used in medial position. On the other hand, it can also come at the initial or final positions in the sentence without any difficulty. Our intuition is that when *ama* is used in medial position between two AOs, it marks an unexpected adversative turn and announces the continuation of the new topic[11].

(5:7) *Kapım çalındığında karşımda duran yüzü hatırlamaya çalışıyordum*, **ama öyle zorlanıyordum ki, eski dostum adını ve nerede tanıştığımızı söylemek zorunda kalıyordu.**

'I was trying to recall the face standing in front of me when the doorbell rang, **but I was having such a difficulty that my old friend had to tell me who he is and where we met first.**'

[11] It is a potential topic for further research whether *ama* has different senses in different positions.

In (5:8), *oysa* is in sentence final position. Its function in this discourse is to refer backwards to the earlier occurrence of *hafta* "week" and *hayat* "life" by emphasizing the expression of *zaman* "time" and *ömür* "life".

(5:8) *Siz, bu haftayı, sanki bu hafta sizin hayatınızın bir haftası değilmiş gibi yaşadınız*. Hadi geçmiş olsun bu hayattan bir haftayı daha yediniz! **Zaman, ömre eşittir <u>oysa</u>.**

'You have lived this week as if it was not a week of your life! I hope you'll get better soon. You have run out of one more week from your life. **Time equals to life <u>however</u>.** Life is not something to waste. Neither is it something to spend.'

In example (5:9), *aksine* is used in the middle of Arg 2. This is not a common usage for *ama* and *oysa* . In this example the usage of comma stresses the location of *aksine* by creating a pause.

(5:9) *Çocukları adam etme iddiasında olmayacak bizim dergi*. Bu işleri toptan ailelere ve okullara bırakacağız. **Bizim hedefimiz <u>aksine</u>, şımartmak ve ayartmak…**

'*Our magazine will not aim to educate children*. We are going to leave this job totally to families and schools. **<u>On the contrary</u>**, **our aim is to spoil and pervert them.**'

5.3 On Linear Order, Theme and Rheme

Linear order is the simplest coding means of discourse relations Linear order of arguments can code information structure including theme and rheme (Frajzyngier, et.al., 2002).

Theme and Rheme

According to Halliday "theme (T) is a function of the clause as message. It is what the message is concerned with". On the other hand, Rheme (R) is the new

information conveyed about a topic (1970, p.161). See the following example for a very simple demonstration of theme and rheme.

(5:10) [$_T$ **Ahmet bilinenin <u>aksine</u>**] [$_R$ *çalışkan bir çocuktur*.]

[$_T$ **Ahmet, <u>in contrary to</u> what is known**,] [$_R$ *is a hardworking boy*.]

In (5:10), "Ahmet, in contrary to what is known" is the theme (topic) since it displays the information already established and "is a hardworking boy" is the rheme (focus) which conveys the new information. According to Erguvanlı (1979), in Turkish, topic is related to sentence initial position while focus is related to pre predicate elements.

According to Fries (1995), there is a correlation between thematic position and given information on the one hand, and rhematic position and new information on the other hand. It is claimed that "writers tend to use the end of a clause to indicate newsworthy information. On the other hand, they use the beginnings of their clauses to lead the readers to the message which will appear in the rest of the clause" (in Bouzeghoub, Kedad & Métais, 2000, p.194). Our intuition is that in Turkish, it is possible to generalize this claim for the connectives *ama* and *oysa*. For instance, in (5:11), Arg 1 gives the reader general information about 'flu' while Arg 2 illustrates the main message showing their difference.

(5:11) Toplumda soğuk algınlığına da grip denmektedir. **<u>Oysa</u> soğuk algınlığı ve grip birbirinden farklıdır.**

'*In our society cold is also called as flu*. **<u>However</u>, cold and flu are different from each other.**'

In terms of linear order of the arguments, it is possible to see the connectives and their arguments in any relative order. There are three possibilities (Prasad, et al., 2007): (a) Arg 1- Arg 2 (b) Arg 2- Arg 1 and (c) discontinuous Arg1- Arg 2. However in the data for this research we have not seen many examples of discontinuous Arg1-Arg2 in the data.

According to Lehmann (1993), the syntactic classification regarding the location of the connective clauses involves three possibilities:

a. postposed position: [Arg 1] [connective Arg 2]

b. preposed position: [connective Arg 2] [Arg 1]

c. intraposed position: [Arg 1… [connective Arg 2] … Arg 1]

In Lehmann's terms, while the postposed position labels the 'central' position, preposed position shows the 'marginal' position (1988, p.186). It is possible to relate certain pragmatic functions to certain positions relative to the connectives.

In example (5:12), the left branch of the connective is separated from the connective *aksi takdirde* "otherwise" with a comma; and used in post posed position in Lehmann's terms. In the MTC the order of the arguments for *ama, oysa, aksi takdirde* and *aksine* are generally Arg1-Arg2. On the other hand, we have observed only *aksine* in preposed (Arg2-Arg1) and intraposed (Discontinious Arg1-Arg2) position apart from the other CCs.

(5:12) *Bu düşüşün ancak yabancı yatırımcıların ilgisinin sürmesi ile devam edebileceğini,* **aksi takdirde faizlerin haftanın geri kalan kısmında mevcut seviyesini koruyacağı, hatta bir miktar yükselebileceği düşünülmektedir.**

'It is thought that *this decrease will continue* only *if the interest of foreign investors go on*, **otherwise the interest rates will maintain their present value or even rise a bit.**'

In example (5:13), information that is given with the connective *aksine* is a parenthetical information. Thus, it has appeared in Arg 1 in a discontinuous way. In other words, it is in intraposed position. As already stated, in this research we have not met such examples so much.

(5:13) *Bu aydınların en güçlü etkisi*, **sanıldığının <u>tam aksine</u>**, Türkiye'de genelde İslâmî bir yüksek tahsil sürecinden geçmemiş küçük bir gençlik zümresinde heyecan yaratmasına rağmen*, İran'la pek de dostane olmayan uzun bir siyasal ilişkiler tarihine sahip Türkiye'deki asıl büyük çoğunluğu teşkil eden Müslüman aydınlarca ihtiyatla karşılandı.*

'Although these scholars' most powerful effect, **exactly <u>in contrast to</u> what is assumed,** has created enthusiasm for a small group of youngsters who generally have not received a higher Islamic education, *it is perceived with utmost carefulness by the Muslim intellectuals*, who form the real majority in Turkey, which has a hostile, political history with Persia.'

Another important issue that may be necessary to mention is *punctuation*. As in examples (5:12 & 5:13), punctuation assigns boundaries of the arguments. In (5:12), the comma that follows the connective displays the boundary of Arg 1 in a clear way. Similarly, in (5:13), Arg 2 is used between two commas signaling the explanatory and extra information.

5.4 Sense

An important aspect of discourse understanding involves the recognition of senses of discourse connectives. Sense annotations provide a clear description in cases of ambiguity. With sense annotations, we can define the semantic relations that exist between the arguments of connectives. (Miltsakaki, et al., 2008)

In PDTB (Prasad et al., 2007) the sense tags are ordered hierarchically (see Appendix A). In this research we have mostly used PDTB's sense tags regarding contrast; however we have divided the *concession* type in two subtypes: denial of expectation and concessive opposition which will be explained in the *concession class*. In what follows, we summarize the PDTB's sense tags and provide examples from our analysis of Turkish CCs if and where they apply to the PDTB's sense tags. The full range of senses and their types can only be revealed when the MTC is annotated by the TDAP.

Class: Temporal

This tag is used when the connective shows that the situations between the arguments are related temporally. There are two types in this class: *Asynchronous*, which is used for temporally ordered situations and *Synchronous* used when the situations in Arg 1 and Arg 2 overlap. There are two subsets of the S*ynchronous temporal relation*: (a) *Precedence* where the situation in Arg 1 precedes the situation in Arg 2 and (b) *Succession* in which the situation in Arg 2 precedes the situation in Arg1.

The temporal sense exists in our sub-corpus. As in (5:14), before the government takes control of power, it has to take the necessary precautions. Since Arg 2 precedes the situation in Arg 1, *ama* is used in the *Asynchronous* sense.

(5:14) *Bu hükümet iktidarı ele alacak,* **ama gerekli önlemleri almayı bekliyor.**

‘*This government will take control of power,* **but it is waiting to take the necessary precautions.**’

Class: Contingency

This type is used when one of the situations described in Arg 1 and Arg 2 causally influences the other. There are four types in this class: (a) *Cause* that is used for the arguments causally influenced, (b) *Pragmatic Cause* (c) *Condition* in which Arg 2 is the condition and Arg 1 is the consequence, (d) *Pragmatic Condition*, used for conditionals whose interpretation is inferred from that of the semantics of condition.

Example (5:15) shows *Cause*. This sentence states that the reader’s knowledge of the success of the experiments leads to the conclusion that the purchase of the medicine is allowed.

(5:15) **Farelerdeki deney başarıyla sonuçlan<u>dığından</u>**, *ilacın piyasaya sürülmesine izin verildi.*

‘T*he medicine is allowed to enter into the markets* **<u>as</u> the experiments on mice have succeeded.’**

Class: Comparison

The sense Comparison includes four main types in PDTB (2007): (a) Contrast, (b) Pragmatic Contrast, (c) Concession, (d) Pragmatic Concession. Our analysis of four CCs suggests that we need to analyze Concession in two types: Denial of Expectation and Concessive Opposition.

In the PDTB, *Contrast* applies when the connective indicates that Arg1 and Arg2 share a predicate or property. The difference is highlighted with respect to the values assigned to the shared property. There is not any assertion between the arguments based on the other one, which is an important difference between Contrast and Concession.

In (5:16), which is a constructed example, the shared property between the arguments is the payment for the *keşkül*. The contrast is, while Ali pays ten liras, Ayşe pays five liras. As it is seen in example (5:16), the connective *ama* creates a *contrast* between the Rhemes (Rs).

(5:16) Ali ve Ayşe dün aşağıdaki pastanede keşkül yediler. [$_T$ *Keşkül için*][$_R$ *Ali kasaya on lira ödedi*] [$_R$ **<u>ama</u> Ayşe beş lira ödedi.]**

‘Ali and Ayşe ate Keşkül in the cafe downstreet. [$_R$ *Ali paid 10 liras*] [$_T$ *for the keşkül to the cashier*] [$_R$ **<u>but</u> Ayşe paid 5].’**

Pragmatic Contrast applies when the connective indicates a contrast between one of the arguments and an inference that can be drawn from the other. The contrast is between Arg1 and the inference that is drawn from Arg 2. In (5:17), yet another constructed example, the inference that is drawn from Arg 2 “Ahmet doesn’t read books” creates a pragmatic contrast to Arg 1 “Umut reads a lot”.

(5:17) *Umut çok kitap okur* **ama Ahmet Yaşar Kemal'i bile tanımaz.**

'*Umut reads a lot* **but Ahmet does not even know Yaşar Kemal.**'

Concession applies when the connective indicates that one of the arguments describes a situation A which causes C, while the other argument implies not C. Two types of concession are distinguished in the literature. These are *denial of expectation* and *concessive opposition*, which apply well to Turkish.

(5:18) a. *Günlerdir bir şey yememişti* **ama güçlü ve sağlıklı görünüyordu.**

'*He hadn't eaten for days*, **but he looked strong and healthy.**'

Denial of expectation includes an underlying expectation as in (5:18). The expectation that may be drawn from this sentence is 'If one does not eat for days, one normally does not look strong and healthy. This implication has the status of presupposition rather than an entailment. According to Lakoff (1971) *denial of expectation* is another name of the 'but sentence'. It composes of an assertion and a presupposition involving an expectation. She claims that in English it is possible to change the connective *but* with another connective such as *although*. Similarly in Turkish it is possible to change the connective *ama* in concession sense with the connective *-e rağmen* "although" as in (5:19).

(5:19) **Günlerdir bir şey yememesine rağmen** *güçlü ve sağlıklı görünüyordu.*

'**Although he hadn't eaten for days,** *he looked strong and healthy*.'

In *Concessive Opposition* the main clause does not express a failed expectation, but rather a reason for drawing some conclusion with respect to a contextually relevant issue (Lagerwerf, 1998). Concessive opposition does not require semantic similarity or parallelism as in denial of expectation. Korbayova and Webber (2001) differentiate concessive opposition from denial of expectation by stating:

> Using the cognitive primitives introduced in [Sanders, et al., 1998], concessive opposition can be characterized as an additive, negative, semantic or pragmatic relation, while denial of expectation is characterized as a causal, negative, semantic or pragmatic relation.
>
> (Korbayova and Webber, 2001, p. 148)

(5:20) **<u>Although</u> he doesn't have a car**, *he has a bike*.

[Korbayova & Webber, 2001. p.150]

In (5:20), the main contradictory issue is that Arg 1 implies that he is not mobile as he doesn't have a car, but Arg 2 expresses that he is mobile. As Lagerwerf (1998), Webber et al (2003) stated, while denial of expectation presupposes a specific defeasible rule, concessive opposition presupposes a *tertium comparationis* (TC), which is opposite to the conclusion that is inferred from the subordinate clause. Similarly in (5:20) it is possible to formulate defeasible rules (as in a & b) whose conclusions are contradictory:

a. If a person doesn't have a car, then he isn't mobile.

b. If a person has a bike then he is mobile.

Pragmatic Concession applies when the connective indicates that one of the arguments describes a situation A which causes C, while the inference of the other argument implies not C. In our data we have not met any instances of this type.

Class: Expansion

This class is composed of five types: (a) *conjunction* in which Arg 1 evokes a set and Arg 2 describes it in further detail. It may be a set of events, reasons or a generic set of behaviors, or attitudes, (b) *instantiation* in which the situation described in Arg 2 provides additional, discourse new information that is related to the situation described in Arg 1, (c) *restatement* (d) *alternative* where Arg 1 and Arg 2 denotes alternative situations and (e) *exception* in which Arg 2 specifies an exception to the generalization specified by Arg 1. For example in (5:21) *aslında* "actually" restates the first argument in the second.

(5:21) *Bu çok eski bir hikaye.* **Aslında yıllar öncesine M. Ö 5000'li yıllara kadar uzanıyor.**

'This is a very old story. **Actually, it dates back to years ago – 5000 BC.**'

5.5 Shared Argument Structure

An important part of this study includes a preliminary attempt to mark the arguments of discourse connective in order to provide evidence related to connective specific behaviors. Thus, defining how connectives share their arguments with the other connectives or which constituents are appropriate to be subsumed by the other connectives are questions that have to be answered. "The complexity of dependencies is far more restricted at the discourse level as compared to the syntactic level, even for languages whose complexity at the syntactic level is much higher than English" (Lee et al., 2006, p.3).

Shared argument structure refers to two connectives sharing the same argument span. Figure 6 illustrates this structure:

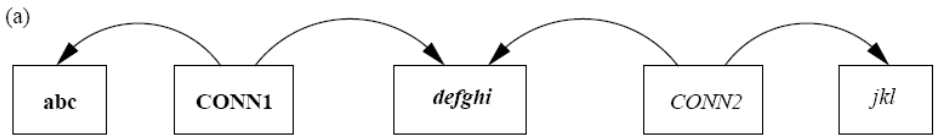

Figure 6 - Shared argument structure (Lee et al., 2006)

Among the examples in the data, *ama* is seen mostly as a connective whose arguments are shared by the other connectives such as subordinators *-DIğI gibi, DIğI için* "as if, because of" or coordinators *çünkü* "because". The position of the shared argument can vary in each discourse unit.

(5:22) Ustaca işlenmiş bir cinayet. Ortada hiçbir ipucu yok. Çünkü *öldürülen yok*. **Ama bir insanın rayı değiştiriliyor; başka bir yaşamın içine sokuluyor**.

'This is a murder committed masterly. There is no trace anywhere since *there is no dead body.* **<u>However</u>, the life of a person is being changed and inserted into another life.**'

In (5:22), the second argument of the connective *çünkü* "since" [Since there is no one who is murdered] is the first argument of the connective *ama* . The related schema about this sentence is given in Figure 7:

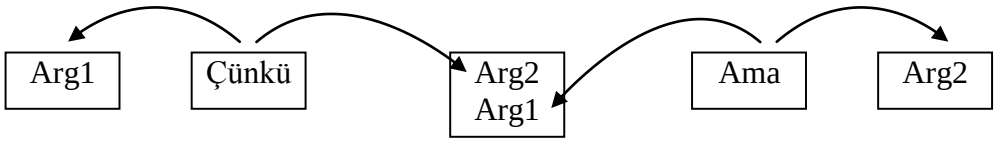

Figure 7 - Shared argument structure of *ama* and *çünkü*: Example 5:22

The shared properties between the connectives *ama* "but" and *çünkü* "because" are seen frequently in the samples. Sometimes the second argument of the connective *ama* can share the second argument of the connective *çünkü*.

(5:23) *Vazgeçmek kolaydı, ertelemek de*. **<u>Ama</u> tırmanmaya başlandı mı bitirilmeli!** *<u>Çünkü</u>* her seferinde acımasız bir geriye dönüş vardı.

'*It is easy to give up.* **<u>But</u> once climbing starts, it has to be finished!** Because everytime there is a ruthless return.'

In (5:23), the second argument of the connective *ama* '*it has to be finished when it is started to climb*" is Arg 1 for the connective *çünkü*. The second argument of *ama* gives the background for the result in the following argument.

When *çünkü* is used in a parenthetical expression in the middle of a clause, it can share one of its arguments with a connective such as *ama* .

(5:24) *Biz yasalar karşısında evli sayılacak,* **<u>ama</u> gerçekte evli iki insan gibi değil de** (evlilikler sıradanlaşıyordu çünkü tekdüze ve sıkıcıydı; biz farklı olacaktık), **aynı evi paylaşan iki öğrenci gibi yaşayacaktık.**

'*We would be married under the law*, **<u>but</u> in reality we would live like two students sharing the same house rather than married people;** because marriages were getting ordinary, and they were monotonous and boring, we would be different.

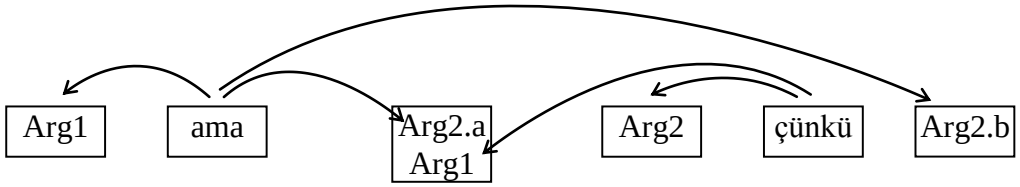

Figure 8 - Partially overlapped argument structure in example 5:24

In example (5:24), *çünkü* "because" in the parenthetical expression intervenes in between the rigid argument structure of *ama* . The second argument of ama, *'in reality we would live as two students sharing the same house rather than two married people'* partially overlaps with the second argument of another connective *çünkü*. In Figure 8, it is seen that the second argument of *ama* is divided into two parts due to the intraposed position of *çünkü*. Figure 8 illustrates the demonstration of this structure.

In the data, it is observed that the connective *oysa* "but, however" can also behave like *ama* in terms of left hand argument sharing. The most common connectives that share an argument with *oysa* are *çünkü* and *ve* "and". In example (5:25), the connective *çünkü* shares its second argument fully with *oysa* . In other words, the text span of the Arg2 of *çünkü* is exactly the span for the Arg1 of *oysa.*

(5:25) "Otantik" sözcüğü anlamının dışında kullanılıyor sanırım, çünkü *TDK'da "gerçeğe, belgeye dayalı" anlamında* **<u>oysa</u> herkes "Evin dekoru çok otantik. Buranın otantik bir havası var." gibi cümleler kuruyor bu sözcükle.**

‘I think the word authentic isn’t used in its original meaning because *it means “based on the reality and documents”* in the Dictionary of Turkish Language Institution **however, everybody makes the sentences with this word such as “the decor of this house is so authentic” or “here it looks very authentic”**.’

There are also cases where supplementary material is inserted into the arguments of *oysa* as in example (5:26) which is displayed in Figure 9.

(5:26) *Başbakan, "mimarlığını Barzani ile Talabani’nin yaptığı, Irak’ta federasyon öngören yeni anayasa taslağı"na karşı çıkıyor* ve şöyle diyordu: …[$_{\text{Supp 1}}$ Federasyon başkanı emrine, orduyu bağlıyor.] **Oysa Ecevit de biliyor ki bu taslağın gerçek mimarı Başkan Bush’tur** ve Washington’da da şimdiden, Saddam sonrası Irak’ının çizimi yapılıp, dünya kamuoyuna açıklanmaktadır.

‘*The President is opposed to “the constitutional treaty whose architectures belong to Barzani and Talabani and predict a federation in Iraq”* and says that… [$_{\text{Supp 1}}$ The head of federation takes the army in his control.] **However, Ecevit also knows that the real architect of this treaty is President Bush** and from now on, in Washington the borders of Iraq after Saddam is being drawn and announced to the world.’

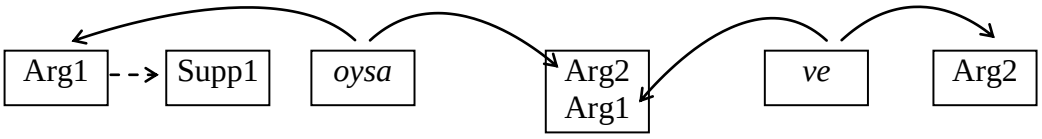

Figure 9 - The diagram showing the position of supplementary material in example 5:26

5.6 Subsumed Argument Structure

Since Turkish is a scrambling language it is possible to insert any arguments into the other arguments of the connectives. In the data we analyzed, the subordinators such as (-D*IğI için* "because of", *-DIğı gibi* "as if") and coordinators such as *ne… ne de "*neither nor" are commonly found in a subsumed way within the arguments of *ama.*

(5:27) *Gerçi bütün çocuklar aynı okuldandık,* **<u>ama</u> ben sevgi ortamında büyütülmüş bir bahçe çocuğu olduğum için, herhalde sokağa ayak uyduramayacağımı düşünüyordu.**

'In fact all of the kids are from the same school, **<u>but</u> since I am a special child who is grown up in a lovely surrounding, most probably he thinks that I cannot adapt to the street.**'

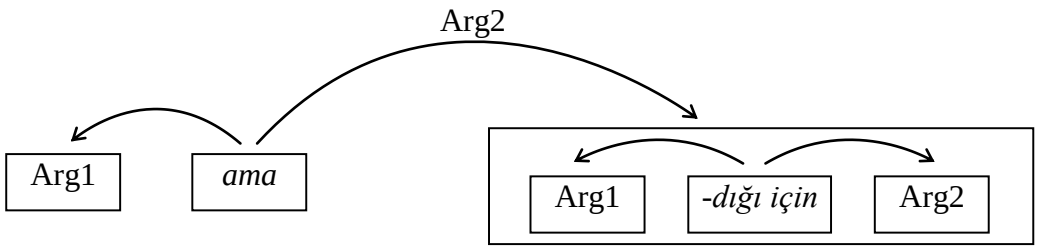

Figure 10 - The diagram showing the subsumed argument structure of *ama* in example 5:27

In (5:27), the subordinate connective *-DIĞI için* is included in the second argument of *ama* . Though it seems that the main clause of the second argument of *ama* '*he thinks that I cannot adapt to the street'* is enough to understand the contrast in the clause, to interpret the discourse fully, it is necessary to mark the whole span in the second argument.

In Turkish, it is observed in the data that the right argument of the contrastive arguments are also inclined to subsume the arguments of another connective as in the following example (5:28). The diagram of the example (5:28) is given in Figure 11.

(5:28) Diğer işçi çocukları gibi adi işlerde çalışır, sık sık barlarda kavgalara karışır ve kanunlarla başı sürekli derde girer. *Temizlik görevlisi olarak gittiği okul dışında üniversiteye adım atmamıştır*. **<u>Oysa</u> müthiş bir**

hafızaya sahip bu gencin beyni bir kütüphane gibidir ve Nobel ödüllü profesörlerin bile zorlanacağı matematik problemlerini kolayca çözer.

'Like other workers' children, he often worked at ordinary jobs, got involved in fights in the bars and he always had trouble with the law *He didn't go to any universities except the school where he went as a cleaner*. **However, the brain of this young boy is like a library and he can easily solve math's problems which even the professors with the Nobel Prize cannot solve quickly.**

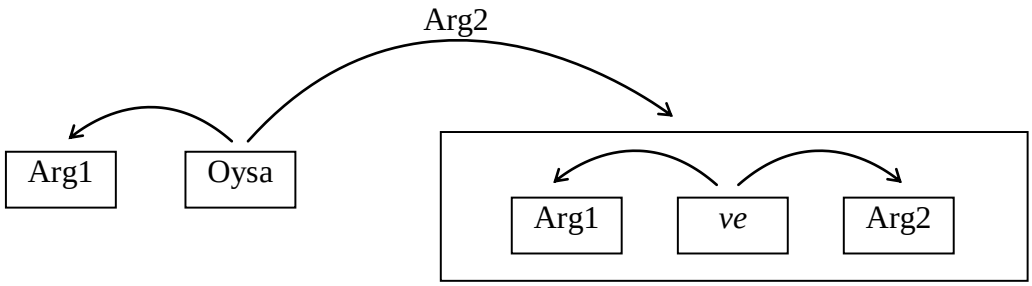

Figure 11 - The diagram showing the connective *ve* "and" *oysa* in example 5:28

According to Lee et al (2006), even though there are lots of complex dependencies in discourse, many of them can be factored out. To decide the spans of the arguments in discourse is important to make reliable annotation in our study. In this respect, they claim:

> the actual types of valid dependencies observed in the data are highly restricted, especially when it is recognized that: i) one of the arguments of the so-called adverbial connectives is always anaphoric or ii) attribution within an argument belongs to a different component of discourse and is not considered part of the discourse structure.
>
> (Lee et al., 2006, p. 2-3)

5.7 Conclusion

In this chapter, the typology of Turkish connectives and examples for each are given along with their syntactic and semantic properties. Then the positions of the connectives are listed to see the pragmatic functions of the connectives. Also, as

discourse connectives can have more than one meaning, we have thought it is essential to list the senses with their examples in Turkish. These preliminary analyses suggest that the positions of connectives and their argument sharing properties will be important to understand how discourse differs from syntax.

CHAPTER 6

ANALYSIS OF THE CONTRASTIVE CONNECTIVES IN TURKISH

This chapter will deal with the actual analysis of each individual connective in the Turkish data. The chapter analyses each connective in terms of (a) sense, (b) lexical cohesion, (c) shared / subsumed argument structure. We will not list all the occurrences but will display a selection representative of that particular function.

6.1 Ama (≈ But)

Ama is originally an Arabic conjunction. In the Dictionary of Turkish Language Institution (TDK) it is classified as one of the contrastive connectives which relate contradictory propositions. In Turkish, it is possible to replace *ama* with *fakat* without any change in meaning (Ruhi, 1994).

6.1.1 Sense Identification

This connective seems to perform a variety of senses and lexical relations in discourse. The first function to be discussed is its function as a *marker of Contrast.* According to Ruhi (1994), *ama* indicates contrast and opposition between the units they relate. In example (6:1), *ama* creates a contrast between a situation presented in the first argument and the situation presented in the second argument. The contrastive meaning is carried with the negative existential marker *değil* "not". The connective expresses the writer's feelings of a house and its comparison related to a previously seen house. The contrast is seen between the rhemes of the arguments.

(6:1) [$_T$ *Benim için*] [$_R$ *çok güzeldi.*] [$_T$ **Ama bu yeni gördüğüm ev gibi**] [$_R$ **lüks ve görkemli değildi.**]

[$_R$ *It was very nice*] [$_T$ *for me.*] [$_R$ **But it wasn't so luxurious and brilliant**] [$_T$ **as the home that I have just seen**]

The second sense in which *ama* can occur is the sense of Concession. As already mentioned, Concessive relation indicates that one of the arguments describes situation A implying a state C while the other argument implies not C. In PDTB, the former argument is represented as expectation and the latter is represented as counter-expectation (Prasad et. al, 2007). Doğan (1994) states that *ama* expresses contradiction in the second argument to deny the expectation that is aroused in the first argument. He provides example (6:2) and explains this feature of *ama* in (6:3).

(6:2) Umut: Benimle evlenir misin? '*Do you marry me?'*
Selin: Seni seviyorum ama seninle evlenemem. '*I love you. I cannot marry you.*'

(6:3) a. Seni seviyorum. '*I love you.*'
b. Beni seviyorsa benimle evlenecektir. '*If you love me, he will marry me.*'
c. Benimle evlenecektir. '*He will marry me*.'
[Doğan, 1994: 201-202]

In example (6:2), when Umut interprets the first part of Selin's answer (6:3.a), he will form the second inference in (6:3.b) and then the last one (6:3.c). However, Selin negates the inference in (6:3.c) with the second part of her answer starting with *ama*. In this case, *ama* denies the expectation in (6:3.c) with the second argument.

As already mentioned in the previous chapter, in our analysis we have come across frequent use of two sub classes to Concession: a) Concessive Opposition and b) Denial of Expectation. These are explained below.

The inference drawn from the first argument indicates that Piraye is a determined woman who has left her husband however; the second argument implies that she is not so confident in leaving her husband. In other words, in the first argument she looks like a woman on the verge of divorce with two children. However her decision about returning to her mother's home leads the reader to conclude as if she is a woman who is not affected by the psychological/social factors. However, in the second argument it is expressed that she is affected by such factors. Arg 1 states a situation giving an implication related to the woman; Arg 2 cancels the implication. Due to these reasons the sense of this example is identified as Concessive Opposition. Like the previous example, the contrast is between the rhemes.

(6:4) [$_T$ *Piraye, iki çocuklu,*] [$_R$ *kocasından ayrılmaya karar vererek annesinin evine dönmüş,*] [$_R$ **<u>ama</u> daha boşanamamış bir kadın olmanın baskısı altında**.]

[$_T$ *Piraye who has got two children*] [$_R$ *returned to her mother's home with the decision to divorce from her husband,*] [$_R$ **<u>but</u> she is under the pressure of the feeling of**] [$_T$ **a woman who hasn't divorced yet.**]

In the following example (6:5), which is a repetition of example (4:2), *ama* introduces *Denial of Expectation,* which is a subcategory of concession. For English Lakoff (1971) proposes that 'but' has a pragmatic meaning requiring the hearer to make a presupposition. In a similar way for Turkish one of the functions of *ama* is to lead the reader to make a presupposition for the interpretation of contrast.

(6:5) *Kaptandı* **<u>ama</u> yüzme bilmezdi amcam.**

'M*y uncle was a captain,* **<u>but</u> he didn't know how to swim.**'

In (6:5), in order to interpret the implied meaning of contrast, the reader must make a presupposition. In (6:5), what is the presupposed is 'If someone is a captain in a ship, one would expect him to swim well; i.e. the presupposition involves a general expectation.

Though it is not so frequent, another sense of *ama* is *Pragmatic Contrast*. In (6:6), which is a repetition of (5:17), there is contrast between one of the arguments and an inference that can be drawn from the other.

(6:6) [$_T$ *Umut*] [$_R$ *çok kitap okur*] [$_T$ **ama Ahmet] [$_R$ Yaşar Kemal'i bile tanımaz**.]

[$_T$ *Umut*] [$_R$ *reads a lot*] [$_T$ **but Ahmet**] [$_R$ **does not even know Yaşar Kemal.**]

The inference that is drawn from Arg 2 indicates that Ahmet does not read a lot. On the other hand, Arg 1 explicitly states that Umut reads lots of books. In addition to this, in (6:6), since the position of NPs (Theme) is clause-initial, the comparison between them gets more prominent.

The final sense of *ama* is *Asynchronous* form, which determines the order of the events. We have observed just three examples of this sense in the sub corpus. In example (6:7), *ama* functions as a regulator which determines what should come before and after. Here, the contrast lies on the sequence of the events. In other words, the connective leads us to focus on the meaning 'you will not mention anything before I finish telling my story.

(6:7) *Bir şeyler anlatacaktın,* **ama öyküyü bitirmemi bekliyordun.**

'*You were going to mention something*, **but you were waiting for me to finish the story.**'

Sense Distribution

Table 2 shows the distribution of senses among 60 samples of *ama* in the sub corpus.

Table 2 - The distribution of sense of *ama* in the sub-corpus

Sense	Count	Percentage
Contrast	28	46.67%
Concessive Opposition	13	21.67%
Denial of Expectation	13	21.67%
Asynchronous	3	5.00%
Pragmatic Contrast	2	3.33%
Concession	1	1.67%
Total	60	100.00%

Table 2 shows that the most common sense among the examples of *ama* is Contrast. Secondly, Concessive Opposition and Denial of Expectation are frequent. The other senses such as Asynchronous Sense and Pragmatic Concession are not frequent. Nevertheless, we can conclude that *ama* is a connective involving a wide distribution of senses.

6.1.2 Lexical Cohesion

We have observed various commonalities in terms of cohesive relationships in the examples with the connective *ama*. This leads us to reason that certain lexical relations may be associated with certain connectives. First of them is the common usage of *antonyms*.

In example (6:8), *ama* is used with antonyms like *dışa – kendine* "outside-inside" (a device of lexical cohesion in H & H's sense). Another crucial point is that *ama* and the word *içe* "internal" are used in adjacent position, hence the contrastive focus becomes more noticeable. Our intuition is that when *ama* is used in sentence medial position, as it is closer to one of the antonymous words, the opposition gets more obvious, i.e., proximity increases the emphasis on contrast.

(6:8) [$_R$ *Dışa karşı güçlüydü*], [$_R$ **<u>ama</u> içe, kendi yüreğine yıkılmak üzereydi.**]

[$_R$ *He was strong to the outside,*] [$_R$ **<u>but</u> he was on the verge of collapsing inside.**]

According to Halliday and Hasan, the second cohesive relation that is quite important for lexical cohesion is *collocations* (1976). Example (6.9) presents a common situation where *ama* establishes a contrast with a set of collocation. By means of collocation, the attitude of the writer is reflected on the text fully right from the beginning of the paragraph.

(6:9) İzin vermiyor, engeller koyuyordum. Dikenli tellerle çeviriyordun bu duvarı. Yaralanıyordum tırmanırken, kanıyordum. *Kırılıyordum, acıyordum*, **<u>ama</u> bırakmıyordum**.

'I would'nt allow [it to happen] and I blocked [it] with obstacles. I surrounded this wall with barbed wires. I was wounded while climbing. *I was broken and hurt*, **<u>but</u> I never gave up.**'

The selection of the words such as *engeller* "obstacles", *dikenli teller* "barbed wires", *yaralanmak* "to be wounded", *acımak* "to hurt" reflect the negative point of view, as we have stated before. These collocation relations compose a semantic association between the sentences and lead the reader to presuppose that '*if something hurts you, you give it up*'. *ama* brings a contradiction to the presupposition.

Similarly, in example (6:10), the usage of collocations such as *zincir* "chain" *koparmak* "break off" create cohesion in the discourse. However, it is different from the previous example since the contradiction lies in the implications of the arguments. Lexical cohesion is established by the opposite states inferred from the arguments, i.e., *bağlı "*tied" and *serbest kalmak* "get free". Furthermore, we can find semantically contradictory relations such as *zincir – çözmek* "the chain – to untie" or

zincir – koparmak "the chain – to break off" in which the relations between the items are based on an activity denoted by the verb.

Another important point for this example is the usage of *her an* "at any time". Its closeness to *ama* shows that the contradiction is not only about the verbs but also the time. It is possible to paraphrase this sentence such as "it is now tied but it can get unfastened at any time".

(6:10) Z*incirleri çözülmemişti,* **ama her an koparabilirlerdi.**

'*Their chains weren't untied*, **but they could break them any time.**'

It is also possible to find concessive opposition or failure of expectation on certain collocation items. In example (6:8), the opposite situations are expressed by the verbs of the arguments, i.e., *güçlüydü – yıkılmak üzereydi* "be strong – be on the verge of failure". In example, we can see failure of expectation since the individual is supposed to be stronger in his own internal world but s/he is not. On the other hand, in (6:11) below, the usage of collocations such as *vazgeçmek- ertelemek- bitirmek* "to give up - to postpone - to succeed" do not require a failure of expectation but declares semantically contrastive situations In other words, the discourse implies that it is not possible to succeed in something by postponing it at the same time.

(6:11) *Vazgeçmek kolaydı*, *ertelemek de*. **Ama tırmanmaya başlandı mı bitirilmeli!**

'*It is easy to give up, also postpone it…* **But when it is started climbing it has to be finished.**'

The repetition of words is a further device of lexical cohesion. There are two kinds of repetition: (a) simple repetition that occurs when an item is repeated in an identical form and (b) complex repetition involving items that are identical but serve different grammatical functions (in Tanskanen, 2006). In (6:12), lexical cohesion is established by the repetition of the same words, *duvar* "wall", *yıkmak* "destroy", *taşımak* "carry" and the complex lexical repetitions such as *ben - benim* " I- my" and

equivalences such as *duvarı taşıyan – duvarı taşıyan birçok insan* " the ones carrying the wall – many people who are carrying the wall".

(6:12) Benim yüreğim de duvar taşıyordu. Aşmaya yeltenen olmadı. *Ben bu duvarı taşıyan birçok insan gördüm ve aşmaya değil yıkmaya çalıştım;* **ama ne ben haberdardım bu duvarın yıkılamayacağından ne de duvarı taşıyan haberdardı bu duvarı taşıdığından.**

'*I have seen lots of human beings who are carrying this wall, and I have tried to destroy it instead of getting over.* **However neither I was aware of the fact that the wall cannot be broken nor the one carrying this wall was aware of the fact that he is carrying the wall.**'

Distribution of Cohesive Relations

Table 3 shows the distribution of cohesive relations in the sub-corpus.

Table 3 - The distribution of cohesive relations of *ama* in the sub-corpus

Lexical Relation	Count	Percentage
Substitution	14	23.33%
Simple Repetition	10	16.67%
Collocation	8	13.33%
Antonym	8	13.33%
Superordinate	2	3.33%
Synonym	-	-
Null	22	36.67%

As it is shown in the table, the most common reiteration types are substitution and repetition. There are just two instances for the category of superordinate. We have

not seen any synonyms in examples of *ama* in the sub-corpus. On the other hand, there are 8 instances for antonyms and collocations.

6.1.3 Shared / Subsumed Argument Structure

The third dimension of the connective *ama* that will be discussed is the dependencies among the arguments. It is well known that it is difficult to analyze the connectives without thinking of the larger discourse. Any argument of the connectives can be a discourse unit of another connective. For example, in example (6:12), that the second argument of *ama* subsumes all the arguments of another connective. The diagram showing this dependency is given in Figure 12.

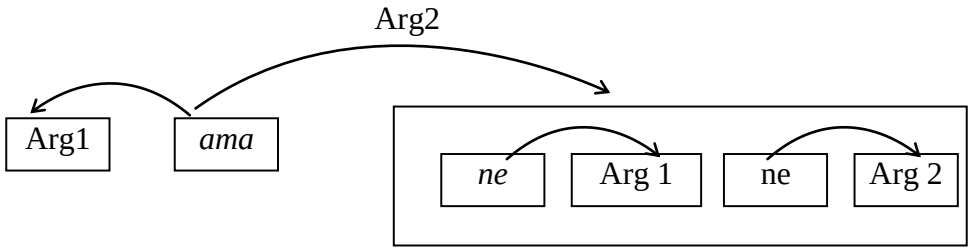

Figure 12 - The diagram showing the subsumed argument structure of *ama* in example 6:12

Distribution of the Dependencies

Table 4 shows the distribution of dependencies of the connective *ama* in the sub-corpus.

Table 4 - The distribution of dependencies of *ama*[12] in the sub-corpus

Dependencies	Count	Percentage
Subsumed - Right	9	15.00%
Subsumed - Left	4	6.67%
Shared - Left	3	5.00%
Shared - Right	2	3.33%
Null	45	75.00%

Table 4 displays that there are 9 examples where the right branch of *ama* subsumes the argument of another connective, and 4 examples in which the left branch of *ama* subsumes the argument of another connective. On the other hand, the results show that *ama* is not only used in complex clauses including explicit connectives - there are 45 null positions for *ama*. We can conclude that *ama* is a connective used generally in independent relations explained in Lee et al (2006):

> independent relations refer to the very common situation where one discourse relation simply follows another in sequence, with their argument spans being entirely independent of one another.
>
> (Lee et al., 2006, p.4)

6.2 Oysa (≈ However, whereas, in contrast)

The discourse connective *oysa* merely points to a contrast between two states of affairs or propositions. (Göksel & Kerslake, 2005). As illustrated in example (6:13), the most distinctive function of *oysa* is to signal a contradiction between a factual

[12] When the sum of percentages is more than 100,00%, it means that more than one case is observed in the same example.

state of affairs and a belief or claim concerning it. The connective always appears at the beginning or the end of the second conjunct. According to Göksel and Kerslake "this may be the one expressing either the factual or the supposed state of affairs" (2005, p.521).

(6:13) *Sen bütün duvarların düz beyaz kalmasını istersin*, **oysa ben bazı odalarda değişik renkler olsun isterim**.

'*You want all the walls to be plain white*, **however I want different colors in some rooms.**'

6.2.1 Sense Identification

It is possible to distinguish three types of senses among the examples of *oysa*. These are Contrast, Concession and Pragmatic Contrast. Firstly, the core function of *oysa* is displayed as a marker of direct contrast, illustrated in (6:14).

(6:14) [$_R$ *Çok umutlanma, hiçbir şey değişmez burada*, derdi.] [$_R$ **Oysa kuşaklarla birlikte çok şey değişiyormuş gibi görünüyordu.**]

[$_R$ "*Don't get very hopeful, nothing changes here*" he would said.] [$_R$ **In contrast, lots of things seem to change with the generations.**]

The sense of Contrast can occur between present states or hypothetical and present states (Fraser, 2006). In example (6:14), there is disagreement between the claims about 'change' in Rhemes (Rs). *Oysa* combines two present states, i.e., "nothing changes-it is changing with generations" and contrasts them. Just like the connective *ama* , *oysa* can also create contrast by using negative marker –mE "not" as in example (6:14), *değişir- değişmez* "change – not change".

There are also examples where a present state and a hypothetical one are contrasted with *oysa*. In example (6:15), the hypotheticality shows that if Ahmet didn't return to Adana, they would enjoy themselves so much. However, the present state shows that Ahmet is in Adana now. The main contrastive pairs that *oysa* connects are

composed of *buraya gelmek* "come here" and *Adana'ya dönmek* "return to Adana". It is also observed that the text span *ne güzel eğlenirdik "*we would enjoy ourselves so much*"* does not have a direct effect on contrast. For this reason this span is marked as supplementary material for Arg 1.

(6:15) *Buraya gelseydi* [$_{\text{Supp 1}}$ ne güzel eğlenirdik.] **Oysa Ahmet Adana'ya dönmeyi tercih etti**.

'*If he came here,* [$_{\text{Supp 1}}$ we would enjoy ourselves so much.] **However Ahmet preferred returning to Adana.'**

The second most frequent sense of *oysa* is Pragmatic Contrast where the contrast is between one of the arguments and the inference of the other. This is shown in (6:16)

(6:16) *Biz büyüyoruz ya, her şey bozuluyor sanıyoruz, her şey eskiden daha güzelmiş gibi geliyor bize.* **Oysa şaşırmayı unutan bizim gözlerimiz…**

'*As we are getting older, we think that everything is getting worse, everything seems as if they were better in the past.* **However, it is our eyes which have forgotten to get surprised.**

In (6:16), the semantic relationship of indirect contrast holds between Arg 1 and the inference that is drawn from Arg 2 "as our eyes have forgotten to get surprised, everything may seem ordinary nowadays."

The third sense that is observed among the examples of *oysa* is Concession, in which the inference of one argument is cancelled by the other argument. In example (6:17), the women in Ankara (the topic of the discourse) are seen as mysterious people whom nobody can understand very easily. On the other hand, the second argument cancels this conclusion with the statement that they are so legible.

(6:17) *Yüz Sherlock Holmes bir araya gelse, o döpiyeslerin üzerinden o maceraların izlerini okuyamazlar...* **Oysa dolmakalemle, temiz yazılmış bir ayrılık mektubu kadar okunaklıdır Ankara'da kadınlar**.

'Even if after a hundred Sherlock Holmes come together, they cannot read the tracks of those experiences from those dresses… **However, the women of Ankara are as legible as a letter of separation written clearly.**'

Distribution of Sense

Table 5 shows the distribution of senses of the connective *oysa* in 60 examples of the sub-corpus.

Table 5 - The distribution of sense of *oysa* in the sub-corpus

Sense	Count	Percentage
Contrast	40	66.67%
Pragmatic Contrast	12	20.00%
Denial of Expectation	6	10.00%
Concessive Opposition	2	3.33%
Total	60	100.00%

As it is illustrated in Table 5, Contrast is the most frequent sense of *oysa* in the sub-corpus. Then it is followed by Pragmatic Concession with 12 instances and Denial of Expectation with 6 instances. On the other hand, Concessive Opposition is not observed so frequently; as it is displayed in the table, there are just 2 instances in the sample.

6.2.2 Lexical Cohesion

Among the types of lexical cohesion, *repetition* plays an important role in the examples of *oysa*. According to Hoey (1991) repetition is divided into six categories: (1) simple lexical repetition such as 'bear-bears'; (2) complex lexical repetition such as 'economist-economy'; (3) simple paraphrase such as 'volume-book'; (4) complex paraphrase such 'heat-cold'; (5) superordinate, hyponymic and co-reference repetition such as 'bear-animal; Augustus-the Emporor' and (6) substitution such as 'a girl-she'. Unlike Hoey, Halliday and Hasan (1976) classify *substitution* as a separate lexical device.

In example (6:18), a repetition of example (5:25), the meaning of the clause is built up with the repetitions of the word *otantik* "authentic". Thus the fundamental oppositeness depends on the different usages of the word "authentic". Secondly, the word "authentic" in Arg 1 is substituted with a determiner *bu sözcükle* "this word" in Arg 2. In Hoey's classification, substitution is a kind of repetition link (1995). Though this link does not have direct effect on contrast, it creates semantic coherence within the text.

(6:18) "Otantik" sözcüğü anlamının dışında kullanılıyor sanırım, çünkü *TDK'da "gerçeğe, belgeye dayalı" anlamında* **oysa herkes "Evin dekoru çok otantik, buranın otantik bir havası var" gibi cümleler kuruyor bu sözcükle.**

'I think the word authentic isn't used in its original meaning because *it means "based on the reality and documents"* in the Dictionary of Turkish Language Institution **however, everybody makes the sentences with this word such as "the decor of this house is so authentic" or "here it looks very authentic"**.'

Similarly, in (6:19) the phrase *tedavi için gerekli süre* "the necessary time for treatment" is substituted with the determiner *bu süre* "this time" in Arg 2. The main contrastive issue is based on the comparison of *this time* according to Prof Dr. Doğan and the hospitals of SSK. Though the main difference is about the time (30

min – 3 min), the themes of the example "Prof Dr. Doğan - SSK" emphasize this contradiction by means of clause-initial positioning.

(6:19) *Prof. Dr. Doğan, tedavi için gerekli sürenin en az 30 dakika olduğunu ifade ederek,* şu görüşlere yer verdi: "**Oysa SSK hastanelerinde bu süre sadece 3 dakika ile sınırlıdır**."

'*Prof. Dr. Doğan stated that the necessary time for treatment is at least 30 minutes* and said that "**However, in the hospitals of the State (SSK) this period is limited to three minutes.**'

Collocation is another way of creating lexical cohesion in texts. It is achieved through the association of lexical items that regularly co-occur. In the following example (6:20), which is a repetition of (5:28), *okul* "school", *üniversite* "university", *kütüphane* "library", *profesör* "professor", *matematik* " maths", *problem* "problem" build a semantically related text. This situation creates obvious associations to understand the paragraph more easily.

(6:20) Diğer işçi çocukları gibi adi işlerde çalışır, sık sık barlarda kavgalara karışır ve kanunlarla başı sürekli derde girer. *Temizlik görevlisi olarak gittiği okul dışında üniversiteye adım atmamıştır*. **Oysa müthiş bir hafızaya sahip bu gencin beyni bir kütüphane gibidir ve Nobel ödüllü profesörlerin bile zorlanacağı matematik problemlerini kolayca çözer.**

'Like other workers' children, he often worked at ordinary jobs, got involved in fights in the bars and he always had trouble with the law *He didn't go to any universities except the school where he went as a cleaner*. **However, the brain of this young boy is like a library and he can easily solve math's problems which even the professors with the Nobel Prize cannot solve quickly.**

The collocation relations in text may not belong to the same grammatical or lexical category. However it does not mean that the relation between the items is haphazard.

When the grammatical classes and semantic(al) relations of the phrases look different, they are called *elaborative collocations* (in Tanskanen, 2005). There can remain items in which an association exist but which cannot be classified as ordered sets or activity related collocation. In example (6:21), there is not a simple collocation relation between the phrases *dikkate almak* "to take into consideration" *kontrol etmek* "to check", *yaşam tehlikesi* "risk of life" because the items do not belong to the same grammatical class.

(6:21) *Kolesterolün yaşam üzerindeki önemli etkisine işaret eden uzmanlar, genç kadınların inme riskini fazla dikkate almadıklarını* **oysa kontrol oranının kontrol edilmemesi durumunda yaşam tehlikesi bulunduğunu belirttiler.**

'*The experts who point out the important effect of cholesterol on life state that, women ignore the risk of apoplexy* **however, there might be risk of life if it is not controlled.**'

Elaborative collocation is about frame concepts. Frames are knowledge structures evoked by lexical items: for example if a text begins with *school,* it evokes the *school* frame and the following items are interpreted according to this frame (Fillmore, 1985; Fillmore & Baker 2001). We can say that frames create a general basis for coherence, but they are conceptual, i.e. they are not visible on the surface of the text. The example (6:21) starts with the word *kolestrol* "cholesterol" so it evokes the *cholesterol* or *illness* frame. In this aspect, the phrases *inme riski* "apoplexy risk" *dikkate almak* "to take into consideration" *kontrol etmek* "to check*", yaşam tehlikesi* "risk of life" are interpreted according to this frame; and hence the contradictory situation between the arguments is explained more easily.

Distribution of Cohesive Relations

Table 6 shows the reiteration and collocation types used with of *oysa* and the frequency with which each type is used in the sample.

Table 6 - The distribution of cohesive relations of *oysa* in the sub-corpus.

Lexical Relation	**Count**	**Percentage**
Simple Repetition	24	40.00%
Collocation	22	36.67%
Substitution	19	31.67%
Antonym	2	3.33%
Synonym	-	-
Superordinate	-	-
Null	8	13.33%

As it is shown in the table, the reiteration type is more frequent in the examples. There are 24 simple repetition relations and 19 substitution relations. On the other hand, the collocation type is also frequently used with *oysa*. There are only 2 instances for the antonmy type.

6.2.3 Shared / Subsumed Argument Structure

In terms of shared/ subsumed argument structure, *oysa* tends to have dependencies much more than *ama*. The most common connectives that are used with *oysa* are *çünkü* 'because', *ve* "and" and *sonra* "after".

Table 7 gives the distribution of shared / subsumed argument structure of *oysa* in the sub corpus.

Table 7 - The distribution of shared/subsumed argument structure of *oysa* in the sub corpus.

Structure	Count	Percentage
Subsumed – Left	14	23.33%
Subsumed – Right	12	20.00%
Shared – Left	2	3.33%
Null	37	61.67%

Table 7 shows that the left and right arguments of *oysa* often subsume the arguments of other explicit connectives. There are 14 instances where the left branch of *oysa* subsumes the arguments of other connectives. Moreover, it is observed that there are 12 examples where the right branch of *oysa* subsumes all the arguments of other connectives. The important conclusion derived from the analysis is that there is no instance showing the right branch of *oysa*, whose argument is shared by another connective.

6.3 Aksine (≈ on the contrary)

The connective *aksine* signals that Arg 1 constitutes an action or state which is incorrect or inaccurate, in contrast with Arg 2, which constitutes an action or state which is incorrect or inaccurate.

6.3.1 Sense Identification

The analyses show that *aksine* is just observed in the sense of Contrast in 57 examples. However we have identified two seperate cases for the sense of Contrast of *aksine*: These are (a) where Arg 1 and Arg 2 are said by a single agent, and (2) where Arg 1 and Arg 2 are produced by different agents. Example (6:22) shows the sense of Contrast for the first case.

(6:22) *Müslümanım deyince iş bitmez*, **aksine o zaman başlar**.

'*It doesn't mean that you are finished with everything when you say I'm Muslim,* **on the contrary it starts at that time**.'

In (6:22), both arguments are uttered by the same agent. When the arguments of *aksine* belong to the same agent, the contrast can be seen in two different types: (a) opposite items and (b) contradiction on the same continuum. For example, in (6:22), the contrast between the arguments is created with the opposite items, i.e., *bitmez* "(it) does not finish" vs. *başlar* "(it) starts".

The other type (contradiction on the same continuum) focuses on the contradictory cases in connected series. In (6:23), *aksine* connects different properties of the names (e.g., names of the women that leave a trace in the poet's life - the names that he likes as sound and meaning). In (6:23), the contradiction is based on the different usage of names (like contradiction on the same continuum). Thus Contrast is created between the different properties of the arguments.

(6:23) *Şair Akgün Akova, "Sevdiğim Kadın Adları" (Çınar Yayınları) kitabında hayatında izler bırakan kadınların adlarına değil*, **<u>aksine</u> ses ve anlam olarak sevdiği adlara yer verdi.**

'*The poet Akgün Akova, in his book called "The female names that I like" (Çınar Publications), didn't use the names of the women who left traces in his life,* **<u>on the contrary</u> he used the names whose sound and meaning he likes.**'

The second type of the Contrast of *aksine* is the 'two agents' case in which the arguments are uttered by different agents. This is the kind of contrast where Arg 1 consists of the first agent's contribution to setting forth one message while Arg 2 consists of the second agent's message that contradicts the accuracy of the previous one. For example in (6:24), the message "you have problems with your wife" is denied by the response of the second agent (Arg 2). In this example it is possible to represent the second argument of *aksine* with an implicit denial such as "That's incorrect".

(6:24) A: Eşinizle sorununuz var mıydı?

B: **<u>Aksine</u>** çok iyi anlaşıyorduk.

A: Did you have problems with your wife?

B: **On the contrary**, we got on very well.

The related diagram of Contrast of *aksine* in example (6:24), is given in Figure 13.

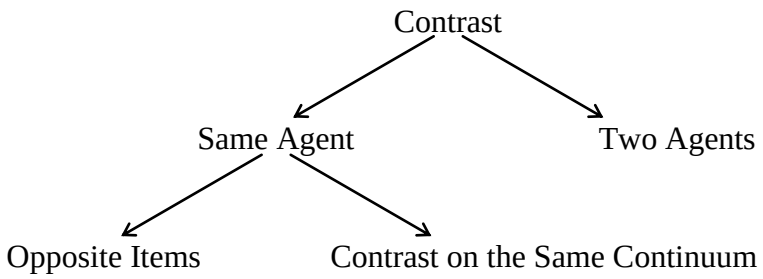

Figure 13 - The diagram of Contrast of *aksine* in example 6:21

6.3.2 Lexical Cohesion

The connective *aksine* displays various usages of lexical cohesive devices. As we have already mentioned, According to Halliday & Hasan (1976), one of the issues which establishes cohesion in text is the repetition of the same word. In example (6:25), the word *yapı* "building" that is also the main topic of the arguments is repeated in both of the arguments. The contrastive meaning is formed with the semantically opposite words bozuk-iyi "bad-good". The first word bozuk "defective" is a near synonym of "bad", so it creates a contradiction with the word iyi "good."

(6:25) *Orada yapı kalitesi bozukluğu filan söz konusu değil*. **Aksine Yalova'daki binaların iyi yapı olduğu** söylenebilir.

'*There isn't any defect in architectural quality*. **On the contrary**, it can be said that **the buildings in Yalova are in good form.**'

Another type of cohesive relations is co-hyponmys of the same superordinate terms such as *sevgi* "love", *korku* "fear", *cesaret* "courage" (hyponmys of feeling) as in example (6:26). The usages of *aksine* with these co-hyponmys make the contrast clearer.

(6:26) *Sevgiden korkmaz,* **aksine sevdikçe daha cesur ve atak olurdu.**

'*He isn't afraid of love,* **on the contrary he gets more courageous and confident as she loves.**'

Another way of creating contrast with *aksine* is the usage of semantically opposite actions. In (6:26) contrast is formed with semantically *opposite of the actions* such as *korkmaz – cesur olur* "be unafraid / be brave". Even if there are various cohesive relations in discourse such as co-hyponyms or semantically opposite actions, *aksine* strengtens the contrastive meaning.

Lexical cohesion can also be built up with collocations such as *cinayet* "murder", *katliam* "massacre", *suçlu* "guilty" as in example (6:27). However the most important point for this example is that the contrast is built up by the connective *aksine* together with the antonmys *dış – iç* "outside - inside".

(6:27) Artık iyice ortaya çıkıyor ki *bu cinayetler, bu katliamlar* söylendiği gibi *dış mihrakların işi değil*. **Aksine suçlular aramızda**.

'It is getting more obvious that *the criminals and slaughters are not the foreigner's affairs* as it is said. **On the contrary, the criminals are among us.**"

In the next example (6:28), the main contrastive issue is between phrases *kaderine küsmek* "being angry with one's destiny" and *yaşam mücadelesi vermek* "struggle for one's life". In addition, the figures of collocation such as *kader* (destiny), *yaşam* (life) have important cohesive functions. The closeness of *kıyasıya* "mercilessly" to *aksine* makes the contrast more plausible.

(6:28) *O, pek çok yaşıtı gibi kaderine küsüp evine kapanmadı*. **Aksine kıyasıya bir yaşam mücadelesi verdi**.

'She didn't lock up herself to her house as her coevals did. **On the contrary she struggled for life**.'

Table 8 shows the distribution of cohesive relations that are found in the arguments of *aksine*.

Table 8 - The distribution of cohesive relations of *aksine* in the sub-corpus

Lexical Relation	Count	Percentage
Simple Repetition	25	43.86%
Antonym	11	19.30%
Substitution	9	15.79%
Collocation	7	12.28%
Synonym	2	3.51%
Superordinate	1	1.75%
Null	17	29.82%

The connective *aksine* uses cohesive relations quite frequently in written texts. As it is shown in the table, repetition pairs are more frequent. There are 25 repetition and 11 antonym instances. This may imply that *aksine* needs repetition pairs to be interpreted as coherent.

6.3.3 Shared / Subsumed Argument Structure

In terms of argument structure, *aksine* does not have a rigid argument order; but in the analysis of *ama* and *oysa*, all the examples are found in the (rigid) order of Arg 1 - Arg 2. In addition, unlike the other connectives, *aksine* mostly takes its left hand argument from a subordinate clause as in example (6:29).

(6:29) **Eroin, bilinenin <u>aksine</u>** *tek alımla bağımlılık yapmıyor*.

'**<u>On the contrary</u> to what is supposed,** *heroin does not cause addiction at one intake.*'

Table 9 shows the distribution of linear order of the arguments of *aksine*.

Table 9 - The distribution of linear order of the *arguments* of *aksine* in the sub-corpus

Linear Order	Count	Percentage
Arg1 - Arg2	47	82.46%
Arg2 - Arg1	10	17.54%
Total	57	100.00%

As it is observed in the table, there are 10 instances involving the Arg 2 - Arg 1 order. It shows that *aksine can* be used in preposed and postposed positions.[13]

In terms of shared and subsumed argument structure, it is obvious that *aksine* is a connective that rarely involves dependencies. We have a few examples showing dependency. For example in (6:30), the right branch of *aksine* subsumes the whole argument of -sE "if". The related diagram showing the subsumed argument structure of *aksine* is given in Figure 14.

(6:30) Biliyorsun [$_R$ *Sevmediğimden değil*], [$_R$ **<u>aksine</u>**; [$_T$ **o filmi bir daha izlesem**] [$_R$ **birkaç güne kadar kendime bir motosiklet almam gerekeceğinden.**]]

'You know that *it is not that I don't like the film,* **<u>on the contrary,</u> if I watch that film again, I would have to buy a motorbike in a few days.**'

[13] We have not given the tables showing the linear order of the arguments for *ama* and *oysa* since all the examples are in the form of Arg 1 - Arg 2.

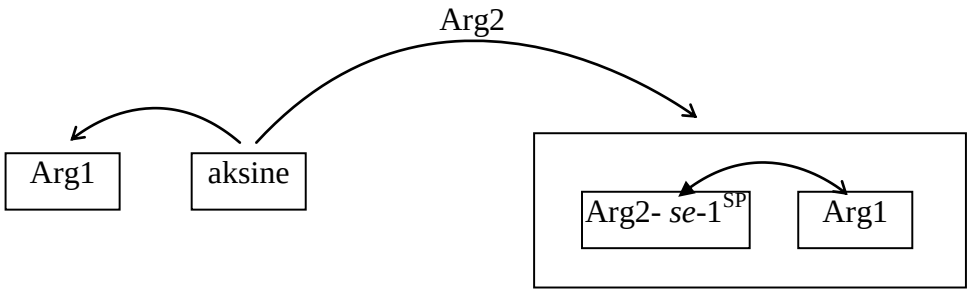

Figure 14 - The diagram showing the subsumed argument structure of *aksine* in example 6:26

Table 10 gives the results of the distribution of shared/subsumed argument structure of *aksine* in 57 examples.

Table 10 - The distribution shared/subsumed argument structure of *aksine* in the sub-corpus.

Structure	Count	Percentage
Subsumed – Right	5	8.77%
Shared – Right	3	5.26%
Null	49	85.96%
Total	57	100.00%

Table 10 gives the implication that the connective *aksine* is generally used in simple structures in written texts instead of complex forms including dependencies. As it is observed in the table, there are only 5 instances for the right branch of *aksine* which subsumes both arguments of the other connective.

6.4 Aksi takdirde /Aksi halde (≈ otherwise)

The connectives *aksi takdirde* and *aksi halde* are disjunctive connectives expressing an oppositional relationship between the arguments. When Situation (S) is thought as a position presupposed in the discourse, *aksi hale / aksi takdirde* displays a case (C) which is true in our knowledge of the real world but not true with S. The connectives *aksi takdirde* / *aksi halde* are discourse adverbials signalling a

disjunctive relation between two arguments Arg 1 and Arg 2, where Arg 2 is the proposition explained in the sentence modified by *aksi halde / aksi takdirde* "otherwise" and Arg 1 is a statement whose negated counterpart is anaphorically represented by these adverbials (Fraser, 2006).

6.4.1 Sense Identification

Our analysis shows that *aksi halde / aksi takdirde* are used only in the sense of Condition in 48 examples we analyzed. The sense of Condition relates a hypothetical scenario with its possible consequences (Prasad et.al, 2007). In (6:31), Arg 1 is the condition and Arg 2 is the consequence. The hypothetical relation built by *aksi takdirde* indicates that "If you don't avoid the behaviors and attitudes that can damage the peaceful environment, the country will be damaged."

(6:31) Cumhurbaşkanı Ahmet Necdet Sezer *ülkede yaşanan barış ortamını zedeleyecek tutum ve davranışlardan kaçınmak gerektiğini*, **aksi takdirde bunların ülkeye zarar vereceği** uyarısında bulundu.

'The President Ahmet Necdet Sezer warned about *the necessity of avoiding the behaviors and attitudes* that can bruise the peaceful environment in the country, **otherwise these will give damage to the country.**'

6.4.2 Lexical Cohesion

The first cohesive relation observed in the examples is simple repetition. Secondly, substitution is frequently observed in the data. For instance, in (6:32), which is a repetition of (5:5), Cyprus is substituted with *ülke* "country" in the second argument.

(6:32) *Kıbrıs'ın tümünün AB'ye girmesinden en çok kazançlı çıkan Kıbrıslı Türkler olur*. **Aksi takdirde, geleceği olmayan bir ülkede yaşamak zorunda kalırlar.**

'*The ones who gain the most advantages from Cyprus's joining the EU as a whole will be Turks in Cyprus*. **<u>Otherwise,</u> they will have to live in a country which hasn't got a future.**'

Collocation is another device of cohesion for the connectives *aksi halde / aksi takdirde.* In (6:33), the words *araç* "vehicle", *yol* "road", *kaza* "accident" are collocations. These links lead the reader to interpret the hypothetical contrast more easily.

(6:33) *Tanrıkulu, sürücülerin araçlarını, iklim ve yol koşullarına göre kullanmaları gerektiğini* belirterek, **<u>aksi takdirde</u> kazaların yaşanabileceğine, başkalarının hakkının çiğnenebileceğine** dikkati çekti.

'Tanrıkulu states that *the drivers should drive their cars in respect of condition of road and climate,* **<u>otherwise</u> the accident may happen and the others' rights will be ignored.**'

Table 11 shows the frequencies of lexical relations of *aksi halde / aski takdirde* in the corpus.

Table 11 - The distribution of cohesive relations of *aksi halde / aski takdirde* in the corpus

Lexical Relations	Count	Percentage
Simple Repetition	11	23.91%
Collocation	9	19.57%
Substitution	7	15.22%
Metonymy	1	2.17%
Synonym	-	-
Superordinate	-	-
Antonym	-	-
Null	19	41.03%

According to the results in Table 11, except repetition and collocation, lexical relations are not used so often with *aksi takdirde* / *aksi halde*.

6.4.3 Shared / Subsumed Argument Structure

As the data in Table 12 reveals, the connectives *aksi halde / aksi takdirde* do not tend to share their arguments with the other discourse units. On the other hand there are a few instances in the data showing the dependency of the arguments. The related diagram showing subsumed structure of *aksi halde* in (6:34) is given in Figure 15.

(6:34) Ama *şimdi bu söylediklerin hiç olmayacak şeyler değil. Yani Benco'yu gördükten sonra…* **Aksi halde hayal gücü fazla biri olduğunu düşünürdüm**.

'*But now what you have said is not impossible*. *I mean after I saw Benco…* **Otherwise, I would think that you are a man whose imagination is very strong.**'

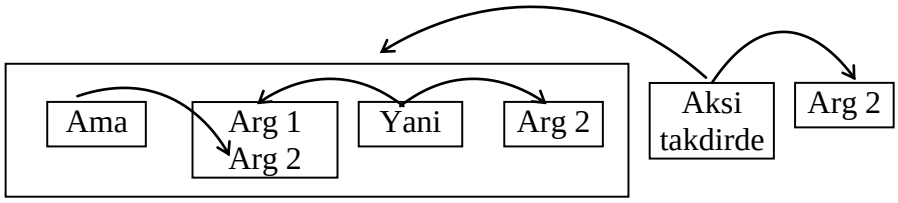

Figure 15 - The diagram showing thee subsumed argument structure of *aksi halde* in example 6:29

Figure 15 represents a rare case in terms of shared/subsumed argument structure. There are two connectives; i.e., *ama* and *yani* "namely" which share an argument. The connective *aksi takdirde* takes both connectives and their arguments as its Arg1.

Table 12 shows the percentages of shared / subsumed argument structure of *aksi halde / aksi takdirde*.

Table 12 - The distribution of shared/subsumed argument structure of aksine in the corpus

Structure	Count	Percentage
Subsumed – Right	4	8.70%
Shared – Left	4	8.70%
Subsumed – Left	3	6.52%
Shared – Right	2	4.35%
Null	35	76.09%

According to Table 12, *aksi halde / aksi takdirde* are used in independent structures in written texts.

6.5 Punctuation

In analyzing the argument structure of connectives, punctuation has not been helpful because there does not seem to be an agreement among writers as to the use of punctuation with connectives. Still, there are a few cases where punctuation hints at the argument structure of the connectives (e.g., 6:19 and 6:20).

6.6 Conclusion

Because discourse connectives are the clearest indicators of discourse structure, analyzing the arguments of the relations they convey provides valuable information both about those arguments and about the range of possible discourse structures.

In this chapter, we have analyzed four contrastive connectives that are the focus of this thesis semantically (in terms of their senses) and with respect to the cohesive links in the discourse. We have also analyzed these connectives syntactically regarding where they take their arguments (eg. Linear order) and in terms of arguments they subsume or share with other connectives in discourse.

CHAPTER 7

DISCUSSION AND CONCLUSION

In this thesis, we discussed some characteristics of four CCs as text-forming devices. The analysis has revealed that there are certain points of parallelism among them as well as important differences.

In Chapter 3, we discussed the concept of "text" and reviewed five types of cohesive devices with special reference to Halliday and Hasan (1976). In the first half of Chapter 3, the characteristics of Halliday and Hasan's framework of cohesion and RST was summarized. In the second half of Chapter 3, we introduced DLTAG, a theory of discourse structure.

In Chapter 4 the methodology used in the analysis was given. The excluded and included argument spans, the criteria for the analysis were discussed.

In Chapter 5, we summarized the general characteristics of Turkish connectives with special reference to the position of connectives, how the connectives share or subsume their arguments with the other connectives' arguments in the text, and the possible senses that the connectives have.

In Chapter 6 we analyzed each CC in terms of their senses, cohesive links, positioning and arguments structures. A number of conclusions can be drawn on the basis of the analyses carried out. These are explained in the following sections.

7.1 The Comparison of CCs with Respect to Cohesive Relations

First of all, our investigation has made it clear that the kind of cohesive relations differ among the CCs. According to Halliday and Hasan "The concept of cohesion is a semantic one; it refers to relations of meaning that exist within the text, and that define it as a text" (1976, p. 4). In other words, a text stands as a text by means of cohesion. If it were not for cohesion, some successive sentences would be separated from each other and would not form a text. Table 13 shows the distribution of lexical relations of each connective.

Table 13 - The distribution of lexical relations of four CCs in the sub-corpus.

Lexical relations	Ama	Oysa	Aksine	Aksi halde/ aksi takdirde
Repetition	16.67%	40.00%	43.86%	23.91%
Substitution	23.33%	31.67%	15.79%	15.22%
Synonym	-	-	3.51%	-
Superordinate	3.33%	-	-	-
Collocation	13.33%	36.67%	14.04%	19.57%
Metanomy	-	-	-	2.17%
Antonym	13.33%	3.33%	19.30%	-
Null	36.67%	13.33%	29.82%	41.03%

Though in Halliday & Hasan (1976) antonmy is a subtype of collocations, we have allocated it a separate category since we have proposed that antonmy is one of the main features identifying the contrastive relation in texts.

According to Table 13, repetition, substitution and collocation relations are not distinguishing features for the CCs in the sub-corpus since they are used with all of the connectives chosen for this analysis. *Repetition and substitution relations* are far

more frequent than the other relations. What this suggests is that repetition and substitution are the most general relations that any CC may establish.

The table suggests that the connectives *ama* and *aksine* do not have a distinctive lexical relation since one can observe all types of lexical relations with these connectives. On the other hand, the connective *oysa* appears to be associated with a distinguishing feature; namely the lexical relation of collocation (which also includes antonyms). However, antonymy itself is not noted so frequently with *oysa*, as opposed to what one may expect.

Aksi takdirde / aksi halde, show an affinity with collocations as well. Once again, the interesting point for these connectives is that even though they have the meaning of contrast, there is not any occurrence of antonyms in the data. We note that if collocations were analyzed in more detail, we could have reached more conclusive results concerning the role of antonyms. This a potential research topic that should be dealt with in further research.

The main role of lexical links has to do with the interpretation of the discourse so that lexical relations themselves might be an alternative to discourse connectives. When there are no such relations between the text spans, discourse relations mostly lie on the explicit connective; on the other hand, the existence of lexical relations plus a CC enhances the links between the arguments.

7.2 The Comparison of CCs with Respect to Sense

Table 14 shows the distribution of sense for each connective, where it is observed that some connectives (e.g. *ama* and *oysa*) are used in multiple senses, whereas *aksine, aksi halde/aksi takdirde* are uniquely associated with *Contrast,* and *Condition,* respectively.

Table 14 - The distribution of sense of each connective in the sub-corpus.

Sense	Ama	Oysa	Aksine	Aksi halde / aksi takdirde
Contrast	46.67%	66.67%	100.00%	-
Pragmatic Contrast	3.33%	20.00%	-	-
Denial of Expectation	21.67%	10.00%	-	-
Concessive Opposition	21.67%	3.33%	-	-
Asynchronous	5.00%	-	-	-
Concession	1.67%	-	-	-
Condition	-	-	-	100.00%

In terms of *Contrast*, the highest ratio belongs to the connective *aksine*, which means that in all the examples in the data, *aksine* always creates contrast with the preceding argument. In a similar way, *oysa* is observed as a connective frequently used in the *Contrastive Sense*.

The connective *ama* reflects a wide distribution of senses. In this analysis we have analyzed six types of senses. Among these, Denial of Expectation and Concessive Opposition are seen as the most frequent senses that *ama* has selected among the other senses.

The most striking usage belongs to the connectives *aksi halde / aksi takdirde* since they are always used in the sense of Condition in our data.

Semantic Map

> Semantic map is a technique that aims to represent sound-meaning correspondences. It links up language – specific formal categories, henceforth 'markers,' to semantic categories, henceforth "uses". The essential idea is that multiple uses of a marker are related in a systematic and universal way.
>
> (Auwera and Temürcü, 2006, p. 130)

We have thought that showing the distribution of senses on a semantic map is beneficial to differentiate the core and peripheral senses of the CCs. (See Figure 16). Semantic map perspective not only shows the different senses of the connectives in our data but also shows that the different senses are close to each other on the map (in Tomasello, 2003).

According to van der Auwera and Temürcü (2006), semantic map is also important for synchronic and diachronic analysis:

> Semantic maps have both a synchronic and a diachronic dimension. The contiguity requirement, while providing a sychronic constraint on possible patterns of polyfunctionality, simultaneously shows the possible paths of change.
>
> (Auwera and Temürcü, 2006, p. 134)

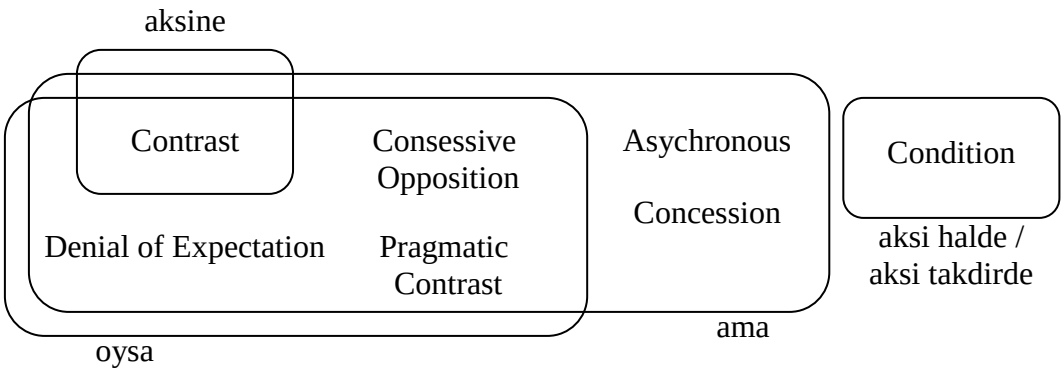

Figure 16 - Semantic map of the four contrastive connectives

In Figure 16, there are seven points, each of which can be identified with semantic explanations. The schema shows how the senses are linked to each other. Each connective covers a contiguous area. Contrast seems as the core sense on the map for the connectives *ama, oysa* and *aksine*. On the other hand, there is an exceptional situation for *aksi halde* and *aksi takdirde*. They belong to a category, which is totally outside of the common schema. There are also similar patterns between *ama* and *oysa* (in terms of Contrast, Concessive Opposition and Denial of Expectation), which may give an implication related to their similar roles in discourse.

7.3 The Comparison of CCs in Terms of Shared / Subsumed Argument Structure

Another crucial difference that occurs among the connectives is related to their shared/subsumed argument structures. Table 15 shows the distribution of the argument dependencies associated with the CCs analyzed in this thesis.

Table 15 - The distribution of the argument dependencies

Structure	Ama	Oysa	Aksine	Aksi halde / aksi takdirde
Subsumed – Left	6.67%	23.33%	-	6.52%
Subsumed – Right	15.00%	20.00%	8.77%	8.70%
Shared – Left	5.00%	3.33%	-	8.70%
Shared – Right	3.33%	-	5.26%	4.35%
Null	75.00%	61.67%	85.96%	76.09%

It is quite obvious that the connectives *ama* and *aksi takdirde / aksi halde* are similar to each other in that they can share or subsume semantic units both in their left and right branches in the same ratio. On the other hand, not all connectives have the same syntactic distribution. O*ysa* stands out in this respect as it does not tend to share its right hand argument with any other connective. It does not share any syntactic similarities with the other CCs unlike its semantical similarities shown on the semantic map.

The most interesting point appears in the examples of *aksine.* This connective does not often share or subsume other connectives' arguments. Considering the scarcity of distributions on sense and cohesive links, we can assume that *aksine* does not show so many lexical and syntactic dependencies in discourse while it has semantic commonalities with the other CCs on thr semantic map.

7.4 The Comparison of CCs in Terms of Position

Yet another important issue about the CCs is related to their positioning in discourse. This issue is also crucial in terms of information structure. When the connective comes in sentence initial, medial or final position, the rest of the utterance is related as a whole semantic unit with the foregoing part of the text. When the connective is in the middle of Arg 1 the sentence to which the connective is attached is split into two units creating a discontinuous argument, and so the conjunctive relationship which the connective indicates is not between the two sentences but between one of the split semantic units and the foregoing part of the text. Such discontinuous arguments are only observed in the examples of *aksine*. Table 16 presents the distribution of the CCs in terms of their position in the sentence. The table shows that *ama* can appear sentence initially and medially. In both cases it takes its first argument from the preceding textual unit. This is basically valid for the other contrastive connectives.

Table 16 - The distribution of positions for each connective in the sub-corpus

Position	Ama	Oysa	Aksine	Aksi halde / aksi takdirde
S-Initial	36.67%	91.67%	31.58%	69.57%
S-Medial	63.33%	5.00%	54.39%	30.43%
S-Final	-	3.33%	-	-
Discontinuous	-	-	14.04%	-

7.5 Results

Syntactic Results

The main finding is that the CCs showing similarities semantically do not show the same similarity syntactically. The differences on the argument dependencies (see Table 17) are the indicators of this difference.

According to the results, although the majority of the connectives tended to be sentence medial and initial, the contrastive connectives in Turkish are quite flexible in terms of their position in written texts.

These results can lay the foundations of future work which deals with discourse structure considering it in terms of its similarities in syntactic structure. For example argument dependencies need to be reanalyzed with more data from other connectives in terms of syntactic concepts such as recursion (see Demirsahin, 2008).

Semantic Results

First we have discovered new senses (Denial of Expectation and Concessive Opposition) that are not mentioned in the PDTB. In Turkish, these senses should be added to the list. Secondly, we have not been able to find a clear hierarchy among the senses of CCs. Another interesting point was found in the high ratio of Contrast and Concession in the examples. Except for the connectives *aksi halde / aksi takdirde,* the other contrastive connectives carry Contrastive and Concessive senses.

Since this thesis only concentrated on four discourse connectives, the senses we determined are strictly associated with those connectives. Thus, future work will show more senses of these and other CCs, and hence a hierarchy of senses may be obtained.

Next, it appears that *ama* has asychronous sense which is not one of the senses of 'but' in English. We think this is an important difference and a sense which needs to be added to the hierarchy of senses under the major class Comparision.[14]

Lastly, though the lexical relations are not examined in the PDTB, we have taken into consideration their relation with the connectives. We have shown that lexical relations are important devices contributing to the discourse relations established between arguments. According to the results, options of lexical relations are more

[14] This thesis examines only a limited number of Contrastive Connectives which are subsenses of major class of Comparision in the PDTB. Further research will show which other discourse connectives can be labelled under Comparision, and which subsenses of Comparision exist.

restricted in the arguments of the connectives *aksi halde / aksi takdirde.* Further research is needed to firmly establish the extent to which such lexical relations are necessary in discourses with CCs. Table 17 summarizes the results of the syntactic and semantic analyses of the CCs dealt with in this thesis.

Table 17 - Syntactic and semantic results of four CCs in the sub-corpus

Connective	Syntactic Results		Semantic Results	
	Positioning	**Argument Dependency**	**Sense**	**Lexical Relations**
Ama	Postposed Position	Shared Right / Shared Left / Subsumed Right / Subsumed Left	• To relate contradictory states or events (Contrast / Pragmatic Contrast) • To create expectation for the interpretation of contrast (Concession) • To order the events (Asychronous)	Substitution / Simple Repetition / Collocation / Antonym / Superordinate
Oysa	Postposed Position	Shared Left / Subsumed Right / Subsumed Left	• To relate opposite states or events (Contrast / Pragmatic Contrast) • To create expectation for the interpretation of contrast (Concession)	Simple Repetition / Collocation / Substitution / Antonym
Aksine	Postposed Position / Preposed Position / Intraposed Position	Shared Right / Subsumed Right	• To indicate contrast to the background information (Contrast)	Simple Repetition / Antonym / Substitution / Collocation / Synonym / Superordinate
Aksi halde/ Aksi taktirde	Postposed Position	Shared Right / Shared Left / Subsumed Right / Subsumed Left	• To relate conditional and contradictory situations (Condition)	Simple Repetition / Collocation / Substitution / Metanomy

7.6 Conclusion

This thesis does not present a monolithic model for the analysis of contrastive discourse connectives. In this aspect, Schiffrin's work forms the cornerstone of the approach. She states that there is no single, coherent approach to discourse connectives in English either.

We have taken the advantage of DLTAG theory in this study. This theory has been a starting point for us to see the kind of semantic relations which can be derived from syntactic representations.

In the future, the issue of contrastive connectives must be further investigated with the inclusion of more contrastive connectives. Sets of connectives with other senses should also be investigated to support the results in this study.

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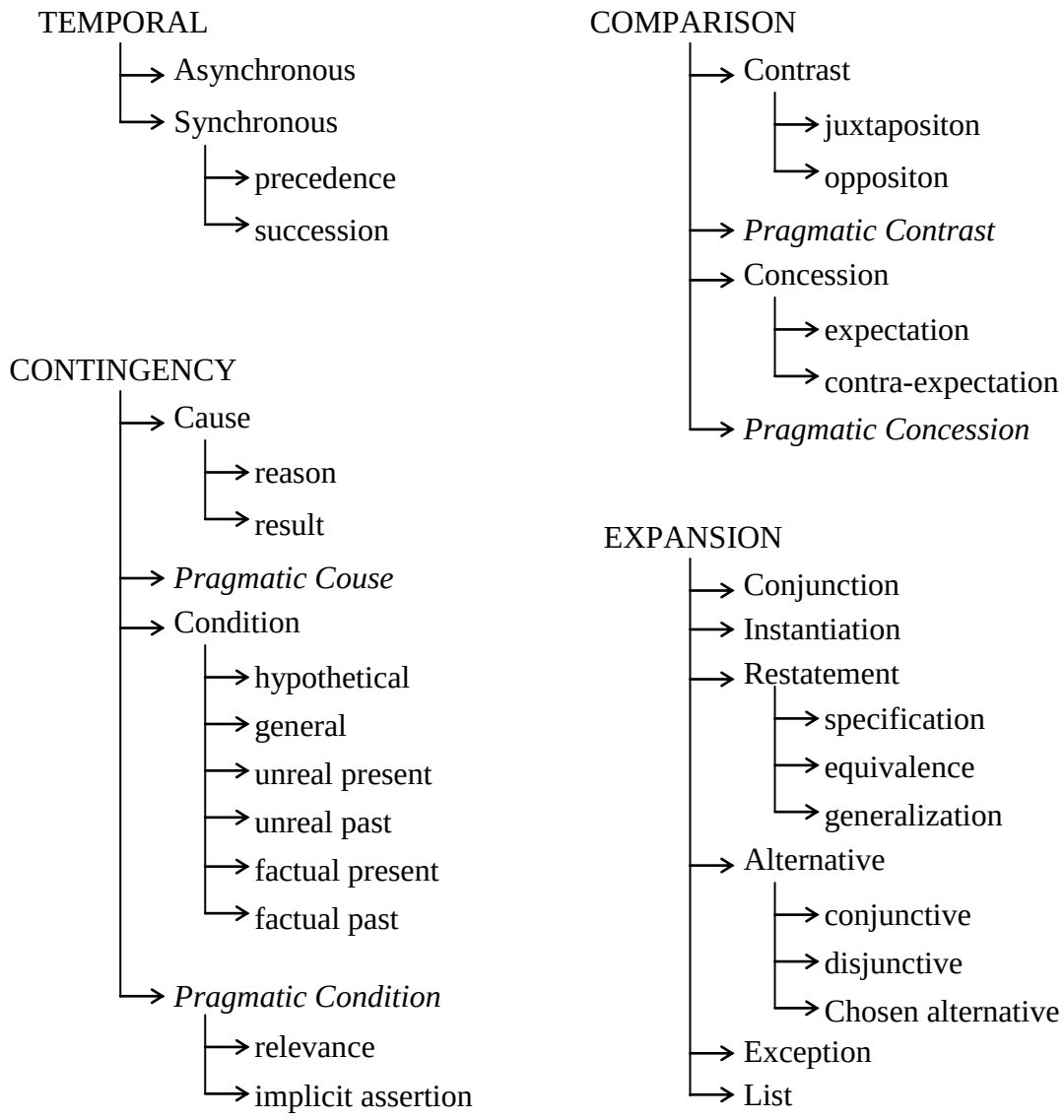
APPENDICIES

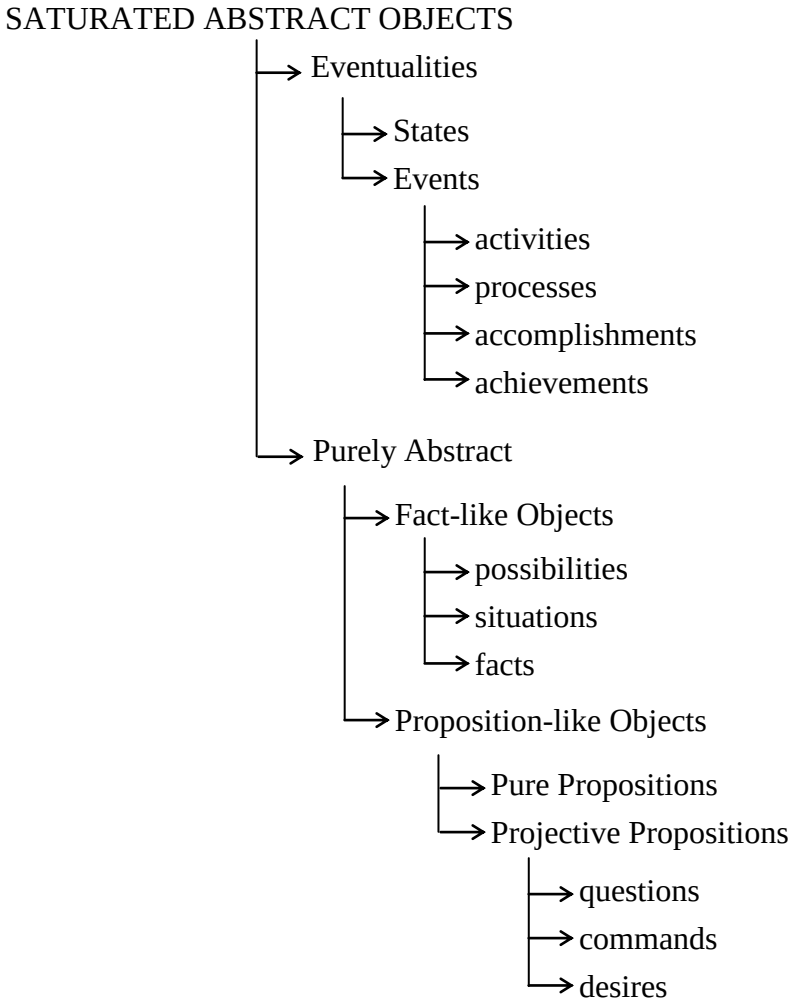
APPENDIX A: HIERARCHY OF SENSE TAGS (PDTB, 2007)



APPENDIX B: THE RST RELATIONS (Mann & Thompson, 1988)

Relation Name	Nucleus	Satellite
Antithesis	ideas favored by the author	ideas disfavored by the author
Background	text whose understanding is being facilitated	text for facilitating understanding
Circumstance	text expressing the events or ideas occurring in the interpretive context	an interpretive context of situation or time
Concession	situation affirmed by author	situation which is apparently inconsistent but also affirmed by author
Condition	action or situation whose occurrence results from the occurrence of the conditioning	situation conditioning situation
Elaboration	basic information	additional information
Enablement	an action	information intended to aid the reader in performing an action
Evaluation	a situation	an evaluative comment about the situation
Evidence	a claim	a claim
Interpretation	a situation	an interpretation of the situation
Justify	text	information supporting the writer's right to express the text
Motivation	an action	information intended to increase the reader's desire to perform the action
Preparation	text to be presented	text which prepares the reader to expect and interpret the text to be presented

APPENDIX C: THE TYPOLOGY OF ABSTRACT OBJECTS (Asher, 1993)



APPENDIX D: THE LIST OF CONNECTIVES IN THE STUDY

Connective	**English Equivalent**
aksi halde	otherwise
aksi takdirde	otherwise
aksine	on the contrary, in opposition to, conversely
ama	but, yet, still, however
aslında	actually
çoğunlukla	usually
çünkü	because, in as much as, for, as
dIğI için	because of, due to
fakat	yet, however
maalesef	regrettably
mutlaka	definitely
ne … ne …	neither… nor…
önce	before
oysa	however, yet, but, whereas
sonra	after
ve	and
yani	I mean

s