

**Language Transfer in English Word Order  
Acquisition of Turkish – Dutch Bilinguals  
Is it from their L1 or L2?**

A Third Language Acquisition Study

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## TABLE OF CONTENTS

<b>0. INTRODUCTION</b> .....	1
0.1 Outline of this thesis.....	1
0.2 A background note .....	1
0.3 Multilingualism in the Netherlands.....	1
0.4 Turkish community in the Netherlands.....	3
<b>1. LANGUAGE TRANSFER AND THIRD LANGUAGE ACQUISITION IN LITERATURE</b> ...	5
1.1 <i>Cross-linguistic Influence or Language Transfer</i> .....	5
1.2 Third Language Acquisition (L3A).....	5
1.3 Language transfer in L3A.....	7
1.4 Factors affecting transfer in L3A .....	16
1.4.1 Linguistic typology of the languages .....	16
1.4.2 Recency.....	18
1.4.3 Proficiency .....	19
1.5 Interim summary .....	20
1.6 Briefly my thesis .....	20
<b>2. SYNTACTIC BACKGROUND</b> .....	22
2.1 Relative Clauses (RCs).....	22
2.1.1 Relative Clauses in English.....	22
2.1.2 Relative Clauses in Turkish .....	26
2.1.3 Relative Clauses in Dutch.....	28
2.2 Topicalization.....	31
2.2.1 Topicalization in English .....	31
2.2.2 Topicalization in Turkish .....	33
2.2.3 Topicalization in Dutch.....	34
2.3 Interim summary .....	36
<b>3. METHODOLOGY</b> .....	37
3.1 Research Question.....	37
3.2 Methods.....	37
3.2.1 Grammaticality Judgment Task (GJT).....	37
3.2.2 Self-Report.....	38
3.2.3 Procedure of the experiment .....	39
3.3 Subjects .....	39
3.4 Hypotheses .....	40
<b>4. RESULTS</b> .....	42
4.1 Fillers.....	42

4.2 Group Results.....	42
4.2.1 Turkish monolinguals .....	42
4.2.2 Turkish - Dutch bilinguals .....	44
4.2.3 Cross-group comparisons.....	46
4.3 Self-Report results of the bilingual group .....	47
4.4 An additional result: <i>gender</i> .....	48
4.5 Individual Results.....	48
4.5.1 Turkish Monolinguals .....	49
4.5.2 Turkish - Dutch bilinguals .....	49
4.6 Analyses of corrections .....	50
4.6.1 Analyses of monolinguals' corrections.....	50
4.6.2 Analyses of bilinguals' corrections.....	51
4.7 Interim summary .....	53
<b>5. DISCUSSION AND CONCLUSIONS .....</b>	<b>54</b>
5.1 Discussion .....	54
5.2 Conclusions .....	57
5.3 Notes for further research.....	57
<b>REFERENCES .....</b>	<b>59</b>
<b>APPENDIXES.....</b>	<b>62</b>
<b>APPENDIX A - NOTES FOR CHAPTER II .....</b>	<b>62</b>
<b>APPENDIX B - SELF REPORT FOR BILINGUALS .....</b>	<b>67</b>
<b>APPENDIX C - GJT FOR BILINGUALS.....</b>	<b>68</b>
<b>APPENDIX D -GJT FOR MONOLINGUALS.....</b>	<b>73</b>

## INTRODUCTION

### 0.1 Outline of this thesis

This thesis investigates the type of *language transfer* or *cross-linguistic influence* in English word order acquisition of Turkish - Dutch bilinguals living in the Netherlands. Word order is looked into with respect to *topicalization* and *relative clauses (RCs)*. Namely, this is a study on language transfer in third language acquisition (L3A). More specifically, this thesis seeks answers to the questions of what type of word order transfer Turkish - Dutch bilinguals make in acquisition of English as an L3 and whether they transfer from their L1 or their L2. Grammaticality Judgment Task was carried out for this research on both Turkish - Dutch bilinguals and Turkish monolinguals. The results of this research have shown that Turkish - Dutch bilinguals make use of their L2 Dutch rules rather than their L1 Turkish in their English word order acquisition. It has also been found out that Turkish monolinguals are influenced by their L1 Turkish less than Turkish - Dutch bilinguals are affected by their L1 Turkish.

Chapter I is a literature review. It gives the reader some background in third language acquisition (L3A) and language transfer. It also presents the factors affecting L3A and ends with the specific focus of the present study. Chapter II reviews the word order differences between English, Dutch and Turkish in *topicalization* and *RCs*. That is, this chapter provides the relevant syntactic background. Chapter III introduces the research question, subjects, methods and hypotheses of this study. Later, Chapter IV analyzes and presents the results of the experiment. Lastly, Chapter V discusses the results of this study finding answers to the research questions and presents the conclusions together with some important notes for the future research.

### 0.2 A background note

Before Chapter I, an introductory background about multilingualism and the Turkish community in the Netherlands will be helpful for making the motivation of this study clear.

It should be noted that the Netherlands has a significant number of immigrants. Therefore, multilingualism has been increasing, as we witness also thanks to the media. It is not a monolingual Dutch society. Turks form one of the biggest bilingual communities in the country. Their acquisition of languages in a multilingual society has been a common research topic in different tracks in the field of Linguistics. Several studies have investigated the Turkish - Dutch bilinguals' development of Dutch, such as van de Craats (2000). However, my thesis does not deal with their development of Dutch, but their development of English. Namely, it is on 'third language acquisition' (L3A).

As the subjects of this study are Turkish - Dutch bilinguals, it is helpful to provide some background information here about multilingualism and the Turkish community in the Netherlands in order to understand the status of those bilinguals in the Dutch society better.

### 0.3 Multilingualism in the Netherlands

Being a multilingual, in terms of having mastered more than one language, is seen as an asset in most societies. If the reasons of being multilingual are international business, traveling, cultural awareness, reading international literature and many others, most people are very

positive towards learning more languages in addition to their L1s. However, it becomes a different issue if they have to learn due to moving to another country (Bos, 1997, p:1).

Socio-economic and political processes of immigration have changed the language variation patterns across Europe. It was estimated in the 90s that one third of the population under the age of 35 in urban Europe would be from immigrant background in the next 10 years. There are four different immigrant groups in European Community (EC) countries: people from Mediterranean EC countries, from Mediterranean non-EC countries, from colonial countries and political refugees (Extra & Verhoeven, 1993, p:1).

The Netherlands have taken great numbers of foreign workers to compensate for the shortage of workforce in many fields of the market in the 60s and early 70s. After the mid 70s, the country stopped recruiting foreign workers and set up stricter immigration procedures. However, the flow of migration went on because of the marriages and the acceptance of political refugees. This is how the Netherlands have become a multinational society (Jacobs, 2002, p:243).

Table 1 shows the non-Western population by foreign origin in the Netherlands (Alders, 2005, p:6):

<b>Origin</b>	<b>Numbers in thousands</b>
Turkey	358
Surinam	328
Morocco	314
Asia	302
Africa	194
Antilles / Aruba	130
Latin America	68

Table 1: Non-western population by foreign origin in the Netherlands

Table 2 shows the Western population by foreign origin in the Netherlands (Alders, 2005, p:6):

<b>Origin</b>	<b>Numbers in thousands</b>
European Union	822
Indonesia	395
Other Europe	135
Other non-Europe	69

Table 2: Western population by foreign origin in the Netherlands

A lot of ethnic minority groups in the Netherlands have a lower status than Dutch people have. The reason for this disadvantaged status is usually their low socio-economic status as a result of their low education, profession and employment levels. Extra and Verhoeven (1993) state that indigenous majority members of the Dutch society perceive the languages and cultures of these ethnic minority groups, especially the groups from Islamic countries, as having a lower status than theirs. The following groups have been recognized as ethnic minorities in the Netherlands according to the governmental policy of Ministry of the Interior (1993, p:11, cited in Extra & Verhoeven, 1993, p:7):

- Moluccans from former Dutch Indonesia,

- Surinamese and Antilleans,
- foreign workers, their families and descendants coming originally from one of the eight Mediterranean countries with which bilateral labor contracts were concluded in the past. These countries are Portugal, Spain, Italy, former Yugoslavia, Greece, Turkey, Tunisia and Morocco),
- political refugees.

The number of minorities at Dutch schools has increased with time. Most of the time, these minority children acquire an ethnic minority language for socialization and communication. They learn Dutch as a second language through their friends and with Dutch children at school. Therefore, when a lot of ethnic minority children start school, they are more proficient in their L1s than they are in Dutch.

The following table presents the home language use in five ethnic groups (Broeder et al., 1993, p:57, cited in Extra & Verhoeven, 1993, p:15)

<b>Origin</b>	<b>Other language (+Dutch) %</b>	<b>Only Dutch %</b>
<b>Mor.</b>	97	3
<b>Tur.</b>	97	3
<b>Sur.</b>	75	25
<b>Ant.</b>	76	24
<b>Mol.</b>	89	11

Table 3: Home language use in five ethnic groups

These children are most of the time regarded as linguistically poor because their Dutch is not at the same proficiency level as that of their Dutch peers. A 6-year-old Turkish child who can express herself / himself both in Dutch and Turkish is not appreciated either by Dutch or Turkish society because her / his proficiency level in both languages is not entirely the same as that of a monolingual peer in these languages. On the other hand, when a Dutch child starts saying her / his words in English, s/he gets applause from the people around her / him. This situation also shows the low status of those immigrants and their L1s in the Netherlands (Bos, 1997, p:1, 2).

#### **0.4 Turkish community in the Netherlands**

As explained above, immigration from Turkey to the Netherlands started in the late 60s while Dutch companies were recruiting workers from many Mediterranean countries. To be able to compensate for the lack of workers for lower-paid unskilled labor, the Netherlands recruited workers mainly from Turkey and Morocco. This recruitment period went on for almost fifteen years. In the beginning, most of these foreigners were adult men who left their families in their countries with the aim of going back after a few years and came to the Netherlands to earn money. However, going back to Turkey seemed impractical later and their families joined them in the Netherlands as sponsored immigrants. In the late 70s and 80s, the immigrants were most young families and the immigration rate decreased. Then, considerable numbers of Turkish children were born in the Netherlands and a second generation was created.

Although the immigration of the workers has stopped, many young Turkish males look for females to marry in Turkey. Therefore, these recently married females who were born and grown up in Turkey add up to the Turkish community in the Netherlands. The community has

become more age-balanced as the first generation is getting older. There are older people, middle-aged people, young people, adolescents and children. As Backus (1996, p: 44) explains, older people mostly use only Turkish while younger people are bilingual and the children are maybe even Dutch-dominant. On the other hand, those Turkey-born wives are unavoidably dominant in Turkish. The number of Turks in the Netherlands today is estimated to be approximately 360.000 and the prediction is that Dutch population will consist of 380.000 Turkish people in 2015 (Manting & Butzelaar 1997; cited in Dotinga, van den Eijnden, Regina, Bosweld & Garretsen 2004).

## Chapter I

### *Language Transfer and Third Language Acquisition in literature*

As this study investigates the type of ‘language transfer’ in third language acquisition (L3A), this chapter firstly defines ‘language transfer’ in general and explains it in different theories. Then, it gives some background on L3A and relevant studies on language transfer in L3A are presented. Next, the factors affecting language transfer, such as *linguistic typology of the languages*, *recency* and *proficiency*, are introduced. Finally, the specific focus of the present study is also explained in addition to a summary of all the findings in the literature.

#### 1.1 *Cross-linguistic Influence or Language Transfer*<sup>1</sup>

It is helpful to mention what is meant with ‘language transfer’. Gass (1988) explains that ‘language transfer’ means the use of L1 in L2 or additional language acquisition. This view is called *the Transfer Hypothesis* (Martohardjono & Flynn, 1995). This *Transfer Hypothesis* assumes that while creating the L2 grammar, the L2 learner takes primarily the L1 as the basis, although it is only one factor influencing L2A on the end product, among the other factors such as *age*, *language distance*, *recency*. Cenoz, Hufeisen & Jessner (2001) explain that *cross-linguistic influence* is a term introduced in the 1980s to cover the phenomena such as ‘transfer’ and ‘borrowing’.

The role of the native language (L1) in second (L2) or foreign language acquisition has been investigated under the term ‘bilingualism’ for many years. As stated by Gass (1988), the research question was not the possible existence of native language influence in L2A, but the main issues were around the appropriate role of L1 in a pedagogical setting. L2 acquisition (L2A), as an independent discipline, has changed the research directions and assumptions over the 40 to 50 years. Gass emphasizes three different phases in this change. In the first phase, the primary importance of L1 was assumed. She states that the role of native language was minimized in the second phase. Lastly, the qualitative aspects of L1 influence have gained importance in research in the last and the current phase. Instead of saying everything or nothing is transferred, the research of the last and the current phase tries to explore the constraints of the transferable aspects of the native language and the underlying principles determining the transferability of L1 information (Gass, 1988). As stated above from Gass’s study, L1 is obviously considered to be the source language with respect to *cross-linguistic influence* in L2 acquisition (L2A). Figuring out the type of cross-linguistic influence in third language acquisition (L3A) is, however, not very simple.

#### 1.2 *Third Language Acquisition (L3A)*

This section explains what third language acquisition (L3A) is and how it differs from second language acquisition (L2A).

L3A is a field which has gained great importance in recent years (Cenoz, Hufeisen & Jessner, 2001, p:2). Jordà (2005) explains that L3A means widening one’s linguistic system quantitatively and qualitatively even more. Although L3A and L2A have common properties, L3A is more diverse and complex than L2A as it has its unique characteristics which are: (1)

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<sup>1</sup> The terms of *Language transfer* and *Cross-linguistic Influence* are used interchangeably in this thesis.

non-linearity, (2) language maintenance, (3) individual variation, and (4) interdependence and quality change (Jordà, 2005, p:12).

Let us consider each of these factors in a more detailed way. *Non-linearity* is considered to be one of the main characteristics distinguishing L3A from L2A (Herdina & Jessner 2000, cited in Jordà, 2005). In the L2A field, language competence and development is seen as a gradual and linear process in which learners get more proficient by time. Although this process can be stimulated or slowed down, it is always considered to be linear. On the other hand, non-linearity here is defined as a language development which does not follow gradually and linearly. As Jordà states, non-linearity is argued for multilingual processes by Herdina and Jessner. They say “according to biological principles language development is seen as a dynamic process with phases of accelerated growth and retardation” (Herdina & Jessner 2000, p:87, cited in Jordà, 2005). If the non-native language is not used, it will be quite normal for the learners to lose the previously acquired knowledge in time. Therefore, language growth is not always linear in L3A as the part of the L3 knowledge which is not actively used is easier to lose in L3 than in L2. This means that L3 development is not linear as there are processes of language growth and attrition together, which usually does not occur in L2A as it is linear.

*Non-linearity* leads us to the second feature of L3A, which is *language maintenance*. Learners have to make effort to keep their proficiency levels in their non-native languages. The more languages known by the learner, the more effort is needed to be able to maintain the proficiency levels and previously acquired knowledge in the target languages. In that sense, L3A is different and needs more consideration in terms of *languages maintenance* than L2A. There might be fewer opportunities for practice and more room for language attrition to occur when the L3 is foreign.

The third defining feature of L3A is *individual variation*. While learning the L3, learners can be affected by many internal and external factors. The relation between these factors and their interactions are more complex in L3A, by virtue of the existence of more languages, than in L2A. Therefore, this *variation* feature should always be kept in mind in this complex process of language acquisition. As Jordà states, L3A can be regarded as a dynamic process as well with the variation and interaction of its defining characteristics.

The last defining feature of L3A is *interdependence and quality change*. *Interdependence* in L3A means that learners’ first, second and third languages are considered as a whole linguistic system which operate at the same time meaning that all the languages a person has acquired are regarded as a whole unit, rather than being 3 separate units. That is to say, an additional language changes the whole system by restructuring it with new links, skills, relationships and learning experiences, and a quality change occurs. The system becomes more complex with the L3. Thus, L3A is not a straightforward phenomenon, but rather complicated.

Distinguishing L3 or multilingual acquisition from L2A is actually quite recent. Previously, L2A was used to refer to any language being learnt other than the native language. Cenoz (2000) lists the main differences between second and L3A referring to (1) the variation of order in which the languages are learnt, (2) sociolinguistic factors, and (3) the psycholinguistic processes involved. With respect to the variation for order of acquisition in L2A, there may be two possibilities. Namely, either the L2 is acquired after L1, or the two languages are acquired at the same time. If there are more than two languages in this process, then more possibilities of variation for learning order will be available. The learning process

of one language (e.g. L3) can also be interrupted by another one (e.g. L4) due to some external and internal causes (Jordà, 2005, p: 19). The second difference is about socio-linguistic factors referring to a set of contextual and linguistic factors influencing L3 competence and performance. Some important socio-linguistic factors which should be kept in mind are the context where the languages are being learnt and used, linguistic typology and the socio-cultural status of the related languages. The last difference stated by Cenoz is about psycholinguistic processes. Cenoz does not focus on the last difference and notes that further research should be done to account for the differences between L2A and L3A with respect to psycholinguistic language processing.

### 1.3 Language transfer in L3A

The research in L3A has undergone significant developments and gained importance in recent years. Although L3A is still experiencing its infancy, a great number of important contributions have been made through several enlightening studies with respect to L3A in the last decade.

One of the most recent and important studies is Bardel and Falk (2007). Bardel & Falk investigate language transfer and L2 influence, which is proposed (by Williams & Hammarberg, 1998 and Hammarberg, 2001) to be an important factor in L3A. Their study looks into the placement of sentence negation in L3 through two groups of subjects with different L1s and L2s acquiring Swedish or Dutch as L3. They try to investigate the possibility of L2 transfer in L3 by looking into whether thematic and non-thematic verbs raise over negation. *V2 property*, as discussed later in this chapter, is important for Bardel and Falk's study. This property requires that, in declarative clauses, the verb must always come as the second constituent in the sentence whatever element is in the first position or whatever pragmatic word order is used. As explained by Bardel and Falk (2007), V2 property has consequences for the negation in the declarative main clauses of Swedish, German and Dutch as in the following; (from Bardel & Falk, 2007)

1. Ginger pratar *inte*. (Swedish)  
Ginger speaks NEG
2. Ginger spreekt *niet*. (Dutch)  
Ginger speaks NEG
3. Ginger spricht *nicht*. (German)  
Ginger speaks NEG  
"Ginger does not speak."

Namely, as shown in the examples (1), (2) and (3), Swedish, Dutch and German have the sentence negation post-verbally in the main clauses as both the thematic and non-thematic verbs raise to the complementizer head, which results in the V2 rule. However, English, as a non-V2 language, is different in that respect and there is a distinction between thematic and non-thematic verbs in terms of verb raising. Thematic verbs stay uninflected in the VP whereas non-thematic ones raise to IP leaving the negation in a post- verbal position (Bardel & Falk, 2007, p: 469) as in (4);

4. Mary does *not* speak.

The other L1s in their study are Albanian, Italian and Hungarian which are non-V2 like English but different from the other languages in the study with the feature of having pre-verbal negative markers in the main clauses with both thematic and non-thematic verbs.

Bardel and Falk's study has two aims, namely evaluating the *Developmentally Moderated Hypothesis* (DMTH) proposed by Håkansson *et al.* (2002, cited in Bardel & Falk 2007) and arguing for syntactic transfer from L2 to L3 through the new data on sentence negation. There are two groups of learners in this study. The first group's L1 is a V2 language whereas their L2 is not and the second group has non-V2 language as L1 and a V2 language as their L2. In this way, this study aims to test a non-transfer hypothesis in addition to the hypotheses of transfer from either L1 or L2. It briefly describes *transfer* and *non-transfer* hypotheses in L2A.

*Transfer hypotheses* differ according to the amount of L1 grammar transfer. The first hypotheses propose a full transfer model with *the Full Transfer / Full Access Hypothesis* (FT / FA), presuming that all syntactic properties of L1 are transferred to the new language being acquired with the Universal Grammar (UG) guidance (Schwartz & Sprouse, 1996). The other group of transfer hypotheses does not support the idea of the complete transfer of L1 grammar suggesting the different levels of L1 influence. For instance, as stated by Bardel and Falk, Vainikka and Young-Scholten (1994; 1996) claim that there is only the transfer of lexical categories or Eubank (1993/94; 1994) supports the transfer of both lexical and functional categories but not the one of feature strength. The learners construct an interlanguage grammar (ILG) with the involvement of L2 input and UG after the transfer phase.

According to the *non-transfer hypotheses*, L1 is not a very important factor in L2A process. The views change slightly from one proponent to the other. For instance, Bardel and Falk mention that Clahsen & Muysken (1986; 1989) believe only the existence of general cognitive learning strategies guiding the learners' new grammar development, but not the involvement of L1 or UG. On the other hand, Epstein *et al.* (1996, 1998, cited in Bardel & Falk 2007) believe only the UG involvement and suggest that learners set up their ILG based on only UG. The *processability theory* (PT), proposed by Pienemann (1984, 1998, cited in Bardel & Falk 2007), puts forward the idea that there are inevitable universal processability stages which are independent of L1 in language acquisition instead of transfer. According to PT, a universal hierarchy of processing procedures exists, and the hypothesis is that there is a specific implicational sequence in which these processing procedures of grammar are acquired. This sequence is composed of 5 stages: (1) lemma access, (2) category procedure, (3) phrasal procedure, (4) S procedure and (5) subordinate clause procedure (Bardel & Falk, 2007). Namely, learners create their ILG step by step following this sequence of PT independent of L1. However, as stated by Bardel and Falk, PT does not completely discard the transfer issue and it says, with the incorporation of DMTH, that only the linguistic forms that can be processed by the learner can be transferred into the L2. That is, processability is seen as a constraint and facilitator for transfer in PT. Håkansson *et al.* (2002) refute the full transfer from L1 and L2 transfer into L3 claiming that processability constraints and the implicational sequence are what is followed independently of the previously acquired languages whereas Bardel and Falk argue for L2 transfer into L3.

Bardel and Falk's study has two groups of participants. The first group has five learners of Swedish as their L3. Three of these five people have Dutch as their L1 and English as their L2 while one of them has L1 English and German/Dutch as L2. The last participant of the first group has L1 Hungarian and Dutch L2. The second group of participants is composed of four

learners of Dutch as their L3. The two learners of the second group have L1 Swedish and L2 English. One of the other two has L1 Italian and German / Dutch L2 while the last one has L1 Albanian and German L2. The experiment is based on recording lessons only with oral communication and training and no writing & reading exercises.

In their first recording, the subjects with Dutch / German L2 produced 12 examples of post-verbal negation out of 15 negated sentences while the subjects with English L2 produced only 3 out of 14. The performance of English L2 group shows dominant pre-verbal placement of negation. In the second recording, the ones with L2 Dutch / German exclusively puts the negation post-verbally (almost target-like) as 14 out of 15 sentences while the L2 English groups places 5 negations pre-verbally and 2 post-verbally in this recording. Post-verbal negation is produced only with non-thematic verbs for the L2 English subjects. Later, L2 Dutch / German starts producing only post-verbal negation with both thematic and non-thematic verbs whereas L2 English ones behave in a different manner, producing 28 sentences with pre-verbal negation and 17 with post-verbal negation. Although L2 English subjects also get closer to the target-like negation placement, they remain significantly different from the L2 Dutch / German participants in the later recordings as well. Therefore, the conclusion from Bardel & Falk's study is that the L2 is transferred into L3 in both groups. Their results confirm that the properties of L2 are transferred into L3A and show that syntactic structures are transferred more easily from L2 into L3A. They also conclude saying "in L3A, the L2 acts like a filter, making the L1 inaccessible" (p:480).

Another relevant study is Leung (2005). She has conducted a comparative study of the initial state of L2 and L3 acquisition from the generative linguistics perspective by investigating the acquisition of French Determiner Phrases (DPs). Leung mentions, in this study, that the generative view sees the L1 initial stage as UG meaning the 'blueprint' or set of principles / constraints that are the universal leaders of the language acquisition process (Chomsky, 1981, 1986, 1995). One of the core questions of this study is what constitutes the L3 initial state and whether it is UG (the L1 initial state) or the L1 steady state or the L2 initial state or the L2 steady state. She compares two rival L2 theories which are *the Failed Functional Features Hypothesis* (FFFH) and *the Full Transfer Full Access* (FTFA) *model*. These two theories have different views on the L2 steady state / L3 initial state. *The Failed Functional Features Hypothesis* claims that L2 learners are restricted with their L1 grammar and they will not be able to acquire the formal features that are not available in their L1s. Thus, FFFH assumes persistent L1 transfer in the L3 /  $L_n$  initial state. Simply put, FFFH also predicts terminal 'failure' of parameterized functional properties for the whole non-native language acquisition process (Leung, 2005, p: 41). On the other hand, Full access assumes L2A to be completely UG-constrained. Leung interprets that, in FTFA model, there is full transfer in L3 /  $L_n$  initial state, but not necessarily from the L1.

Leung has four groups of subjects per experiment: an L3 French experimental group (L1 Chinese – L2 English, namely Cantonese - English bilinguals), an L2 French experimental group (L1 Vietnamese, with no English background) and two native French and English control groups. Experimental groups are both beginner level of French learners who have been tested through elicited oral & written production tasks, grammaticality judgment & correction tasks, picture identification and multiple choice tasks.

There are different hypotheses for L3 group, Cantonese - English bilinguals and L2 group, Vietnamese monolinguals. According to the FFFH, L3 French initial state will be the L1 Chinese final state. However, FTFA hypothesizes that the L3 French initial state can be either

the L1 Chinese final state or L2 English steady state. On the other hand, for the L2 group, Vietnamese monolinguals, both FTFA and FFFH assume that there will be full transfer from L1 Vietnamese into the L2 French initial state.

Leung presents some cross-linguistic facts and syntactic assumptions about the nominal phrase structures of French, English, Chinese and Vietnamese in her study. She explains the important differences between the source and target languages in her study by mentioning that English and French both have DP projections whereas Chinese and Vietnamese do not, as exemplified in (5) and (6) below. The second difference is that there is the [ $\pm$  definite] feature on D both in English and French as shown in the examples (5a), (5b), (5c) and (5d) while this formal feature is absent in Chinese and Vietnamese which have the [ $\pm$  specific] feature instead as the examples (6b), (6c), (6e) illustrate. The third difference presented is that there is a NumP projected with [ $\pm$  plural] in both English and French, but not in Chinese and Vietnamese as example (6) below shows. The fourth difference is that the *number* feature is strong in French but weak in English while this is not even applicable in Chinese and Vietnamese. Finally, Leung explains that there is overt N-to-Num movement in French while it is covert in English and inoperative in Chinese and Vietnamese. To sum up, English and French have typologically common nominal properties, but Chinese and Vietnamese are different from English and French. French and English have DPs whereas Chinese and Vietnamese lack DPs but have classifiers (CL), as exemplified in the following examples (6b), (6c) and (6e) (Leung 2005):

5. a. *une table ronde* (French & English)  
a table round  
b. a round table  
c. *le climat froid*  
the climate cold  
d. the cold climate
6. a. *syu2* (Chinese)  
book  
“books (in general)”  
b. *bun2 syu2* (Chinese)  
CL book  
“the / a book”  
c. *jat1 bun2 syu2* (Chinese)  
one CL book  
“one book / a book”  
d. *sach* (Vietnamese)  
book  
“book(s) (in general) / the book(s)”  
e. *cuon sach* (Vietnamese)  
CL book  
“the book / a book”

The results of this study show that the L3 subjects performed significantly better than the L2 subjects for all three types of articles: specific-definite, specific-indefinite and non-specific – indefinite). Furthermore, the L2 subjects’ accuracy rates on all test items were consistently lower than the L3 subjects’ and also significantly lower than those of the French controls. The results also suggest that the feature of [ $\pm$  definite] seems to be absent in the L2 group’s French

initial state whereas the same feature does not seem to be missing in the L3 group's French initial state nor English steady state. Lastly, occurrences of null articles are very low in the L3 group's French and English and no significant difference was found with the respective control groups. On the other hand, the L2 group's rate of null articles is significantly higher than the L3 group's as well as the French controls', which suggests that the D and Num categories may not be well in place yet in L2 group's French initial state (Leung 2005, p: 56). Leung explains that these (above-mentioned) results suggest that there is *partial* L2 English transfer into L3 French initial state of the L3 subjects due to the different performances of the L2 and L3 group despite having the same L1.

Leung's results are presented as the strong evidence for full L1 (Vietnamese) transfer in L2 French acquisition whereas L1 transfer has not been found in L3A. She has also found that there is partial L2 (English) transfer in the initial state of L3 French acquisition. The last one is a finding against FFFH, which claims L1 transfer in any initial state of L2 or L3. However, this result does not support FTFA completely either as the results confirm partial L2 transfer rather than L1 transfer in L3 initial state. In contrast, for the L2 group, the results are consistent with the FTFA account, meaning full transfer is confirmed by the results of this study for L2 French group. In conclusion, the findings of this study support full transfer of L1 (Vietnamese) in the L2 French, which is predicted by both FFFH and FTFA. However, L1 transfer in L3A has not been found while there is only partial L2 (English) transfer in the L3 French. That is, the findings are not completely in line with either FFFH or FTFA. In the end of the paper, based on her findings, Leung draws a strong conclusion stating that L2 and L3 acquisition are different at least in terms of initial states. Leung also concludes that transfer is not always from L1 in L3A. Also, L3A is not a different version of L2A, but more complex than that.

Sikogukira's study (1993) also presents a case of transfer from L2 into L3A, which shows the influence of L2 French on the acquisition of English lexical properties by the subjects with L1 Kirundi<sup>2</sup>. Therefore, it is further evidence for L2 influence on L3. In this study, Sikogukira explains that how a person with an experience of learning another language acquires a new language will be different than how a monolingual person acquires a new language although they have the same L1 and socio-psychological characteristics. The experience of learning another language before will help the L3 learners perform better than the L2 learners. Sikogukira also emphasizes the importance of certain factors, such as *Typological closeness of languages* (as called by Sağın) and *recency*, affecting the language transfer in L3A. These factors will be discussed more in section 1.4. Sikogukira mentions the *psychotypology hypothesis* (Kellerman, 1977, 1986, 1987) meaning the learners' perception of the distance, the degree of relatedness and similarity between the source and target language. This perceived distance between the two languages is an important factor influencing the transferability of the languages in the acquisition process. Sikogukira also refers to *the base language hypothesis* of Chandrasekhar (1978) stating the source language from which the transfer takes place is called 'the base language'. Moreover, he adverts to 'recency' as a factor to support the L2 influence in L3A, which is originally argued for by Bentahila (1975) and Rivers (1979). The 'recency' view implies that the last-learned foreign language will influence the next-learned one.

Sikogukira (1993) explains that Burundian students make a lot of semantic approximations due to the L2 French semantic structure transfer into L3 English. The assumption in this

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<sup>2</sup> Kirundi is a Bantu language spoken in Burundi and some adjacent parts of Burundi, Central Africa.

study is that Burundian students of English as L3 transfer lexical properties from French to English more than from Kirundi to English because of the relatedness of French (L2) to English (L3). In this case, French is the 'base language'.

The subjects are students from the department of English Language and Literature with the same linguistic, cultural and educational background and the same mother tongue. The lexical category in this study is French - English cognates because it is rich for investigating the transferability of lexical categories between these two languages and also because cognates are usually confusing for the learners and even for the language teachers. The study focuses more on the semantics of French- English cognates with two types of categories. The first category has French-English cognates with the same or similar meanings in French and English and also synonyms of non-cognate English lexemes (e.g. *commence*, *begin*, *start*; *espionage*, *spying*) or hyponyms (e.g. *assassinate*, *murder*, *kill*; *gluttony*, *gourmandize*, *greed*) (Sikogukira, 1993). The second category in this study has the French-English cognates with different meanings in two languages. The study also shows that the learners are inclined to look for a semantic similarity.

Sikogukira explains that French and English have a large common lexicon due to the contact of these two languages, meaning each of the languages has borrowings from the other one but they rarely kept the same meaning of the source language. For instance, *commence* is used in formal contexts in English whereas it is not in French. This study investigates how the students of English deal with French- English cognates and whether they transfer their knowledge of cognates in French into English. He predicts that the subjects will use non-cognate English lexemes in a relation of either synonym or hyponym with French - English cognates and will transfer French - English cognates with different meanings in French and English. He also hypothesizes that these uses and transfer in his predictions will decrease with the increase in the proficiency level. There are two experiments with two different tasks in this study, which are sentence completion task and lexico-semantic acceptability judgment task.

It was predicted by Sikogukira and also turned out to be case with the confirmation of the results that learners' tendencies to use synonymous or hyponymous non-cognates (rather than French-English cognates) and to transfer French-English cognates with different meanings in both languages decrease with the increasing level of proficiency. The results also show that the level of proficiency is a very important factor influencing the performance of the learners and the transfer in the language acquisition. Most importantly, this study supports the L2 influence on L3A presenting data which confirms the L2 French transfer in L3 English.

The study in my thesis has been inspired by a similar study carried out by Sağın (2006) in Germany for Turkish - German bilinguals and Turkish monolinguals in Turkey. She investigates the syntactic influences of Turkish and German on the acquisition of English word order as an L3. Under the umbrella of word-order, she looks into V2 property / topicalization, bracketing constructions, subordinate clauses, objects placement and adverb-adverbial phrases. Her data provides evidence that Turkish - German bilinguals are influenced more by syntactic organization of German in their syntactic organization of English.

There are 14 Turkish - German bilinguals and 25 Turkish monolinguals in her study. The first group, who are Turkish - German bilinguals, lives in Germany whereas the second group, who are Turkish monolinguals, lives in Turkey. The first group of students was composed of 14 bilinguals, 8 female and 6 male who were between 13 and 14 years old. They acquired

Turkish as their L1 from their families and German as their L2 around the age of 3. The language of instruction at school is German. As for their foreign language, they have English 4 class hours a week and they have been learning it for 3 years. The second group, on the other hand, has 25 monolinguals consisting of 14 female and 11 male students between the ages 14 and 15. The students of the second group are from Anatolian High School which has 24 hours of English lessons per week for the first year. The proficiency levels of both groups are intermediate. Sağın collected her qualitative data through written texts from students, classroom recordings and interviews conducted with the instructors. In addition to the qualitative data, she gathered her quantitative data through *C- tests*, to be sure about the proficiency levels of the languages students know, and also *questionnaires*, administered to get information about the students' educational and linguistic backgrounds. There was also a piloting process to avoid any unclear items and instructions and to set the approximate time for the task. For the written texts, the students were asked to write three compositions in the classroom which were in the form of free writings. To avoid any other language influence, they were asked to write first ones in English. They had two class hours and different topics for each text. After the English versions, the students were asked to write the same texts in German and Turkish as well. The data collection period lasted for five months in Germany and five months in Turkey. Spoken data were collected through classroom recordings. Interviewing the teachers of both groups was the last step of data collection.

Sağın explains that German sentences have three main parts which are *Vorfeld*, *Mittelfeld* and *Nachfeld* corresponding to the initial, middle and final fields, and that the positions of the finite verbs determine the division of these three sentence parts as well as the sentence types.

Due to the matter of relevance to my thesis, I will present more information and data about the V2 property / topicalization and subordinate clauses from Sağın.

As explained by Sağın, any sentence constituent can be topicalized using the V2 property which requires the verb in the second position and leaves the third position for the subject according to German topicalization rules. It is mentioned that the bilingual students deviate from the rigid SVO order of English. The example sentences produced by a student are given below; (from Sağın, 2006)

7. At first **was** a man on the stage then two other man. (English)  
topic V2 subject
8. Als erstes **ist** ein Mann auf die Bühne **gegangen** und hat gesungen. (German)  
at first has a man on the stage gone and did sing
9. İlk baş-ta bir adam söyle-di sonra iki başka adam ve sonrada ara ver-il-di.  
first begin-LOC one man sing-PST then two other man and then-and break give-  
PAS-PAST (Turkish)

In sentence (7), the time adverbial 'at first' is topicalized according to the German thematic organization and placed in the sentence initial position which is 'topic / theme' in German. The subject 'a man' is also placed after the verb according to the German word order rules. As Turkish does not have the structure of sentence (7), the base language is clearly German in this case. It is also hypothesized by Sağın that the typological similarities between German and English guided the student to use that structure.

Sağın also looked at the examples of SVO / SOV patterning in Subordinate clauses. Two sentences from a student's text were analyzed. The first example of discussion was the following; (from Sağın, 2006, p:83)

10. When we come to the airport, *give* we the suitcase there fort and go to the plane.

This example also reflects V2 transfer from L2 German into L3 English as the first position is occupied by the subordinate clause and the verb *give* comes in the second position when the whole sentence is considered as one main clause. Moreover, sentence (10) is ungrammatical in English as the main clause starts with the verb rather than the subject. SVO is the rigid word order in English both for main and subordinate clauses. However, the word order of this sentence is like the order of German complex sentences. In German subordinate clauses, the verb has the sentence final position while it occupies the second position in main clauses since it is preceded by the subordinate clause as in (11): (from Sağın, p:83)

11. Wenn die Sonne scheint, *gehen* wir gern spazieren.  
when the sun shines go we with pleasure walk around

The verb occupies the regular V2 position in (11) as well because the first position is occupied by the subordinate clause 'wenn die Sonne scheint' (when the sun shines). Sentence (10) is influenced by German grammar as the verb of the main clause is used in the initial position due to the fact that the verb is preceded by a subordinate clause. However, the verb in the subordinate clause (when we *come* to the airport) is interestingly used correctly according to English SVO order. Sağın thinks that this might be due to the proficiency level of the student. She states that the student might have learnt or seen that the verbs and subjects are generally used as adjacent complements in English but may not have fully acquired it yet. The subject and verb positions of both main and subordinate clauses in Turkish are completely different from the German and the English ones as the same student correctly produced in (12) below:

12. Hava alanı-n-a gel-diğ-i-miz zaman Bavul-lar-ı ver-di-k  
Airport-DAT come-PAR (-dik)POSS1PL when suitcase-PL-ACC give-PST-1PL  
o-n-dan sonra uç-ağ-a bin-di-k.  
DEI-ABL after plane-DAT get on-PST-1PL

One of the findings in Sağın's study was that Turkish - German bilinguals use more complex sentences in German than they do in Turkish. It is thought this is due to Turkish being a minority language in Germany and the subjects acquire German in a German speaking environment with German native speakers.

Sağın (2006) also analyzed examples of the use of *German Bracketing construction*. This construction type only exists in German, not in Turkish or English. *Bracketing constructions* are composed of verbs with more than one word. The finite part of the verb carries inflections for person, number and tense, and occupies the second position in the sentence while the other parts of the verb appears at the end of the sentence. Sağın (2006) presents the following example sentences from her data for the bracketing constructions;

13. Ilhan Mansız is not married, but he **will** in one or two years **married**.  
14. Ilhan Mansız is nicht verheiratet, aber er **möchte** in 1 oder in 2 Jahren **heiraten**.

In (13) and (14), the finite and infinite parts of the verbs are separated by the subject both in English and German. However, it is not grammatical in English. In (13), ‘will’ is not used as a future marker but as a modal expressing a wish or desire. Sağın (2006) says that the student is influenced by the phonetic similarity between German ‘will’ meaning ‘to want something’ and English ‘will’ which is a future tense marker, so there is lexical transfer from German into English. Sağın also mentions that when a verb has more than one component in Turkish, such as in phraseological verb constructions ‘şarkı söylemek’ (to sing a song), ‘yemek yapmak’ (to cook), etc., they are used together and not separated by other sentence constituents. The Turkish version of (13) and (14) is formed according to the rule by the same subject as (15):

15. İlhan Mansız daha evlen-me-di, fakat 1 veya 2 sene iç-in-de **evlenmek ist-iyor**.  
 İlhan Mansız yet marry-NEG-PST but 1 or 2 year in-POSS-LOC to-marry want-PRS

Furthermore, Sağın analyzed the examples of *Object placement* in the written texts as well. The grammatical relations between subjects, direct and indirect objects are encoded through word order and / or prepositions in English (Sağın, 2006, p:93), as in the following examples:

16. The man gave the girl a rose.  
 17. The man gave a rose **to** the girl.

Turkish - German bilingual subjects use direct objects before indirect objects without prepositions in English, which looks like German object ordering. Unlike English, the objects in German are morphologically marked as in other case-marked languages. The dative object precedes the accusative one as the information structure governs the order of the case constituents and the new or focused information is placed at the end of the sentence in German. On the other hand, Turkish does not have a strict rule of ordering objects. Therefore, Sağın concludes that Turkish - German bilinguals apply German object ordering rules in their English production.

Lastly, Sağın (2006) also analyzed the examples of *adverb / adverbial positionings* in the written texts. Turkish has the unmarked order of adverbials as *Time-Place-Manner* while German has *Time-Manner-Place* order, as exemplified below: (Sağın, 2006)

18. Ben dün (T) Ankara’ya (P) otobüs-le (M) gel-di-m. (Turkish)  
 I yesterday Ankara-LOC bus-INST come-PST-1SG  
 19. Sie sind gestern (T) mit dem Bus (M) nach Zürich (P) gefahren.  
 she were yesterday with the bus to Zürich went

English, however, has options for the placement of adverbials despite having a rigid word order. Adverbials can frequently occupy the initial or the final position. The participants provide sentences such as:

20. ...but I must went on to my match at nineteen o’clock to Manchester.  
 21. Perhaps he will play the next football saison in Bayern München or HBS, because his contract will be finish.

Sağın concludes that it is not possible to choose either Turkish or German as a source language for this type of production as both languages are flexible in terms of adverb / adverbial placement. Both of them might have been used as a source language (Sağın, 2006).

It is also stated by Sađın that individual differences played an important role on how much they are influenced by German word order and on which topics they were influenced more.

The data collected from Turkish monolinguals showed heavy influence of Turkish on English production. One student produced the following sentence following the Turkish SOV order and placing ‘play’ as the verbal predicate in the sentence final position;

22. I am Saturday football play.

The Turkish version of this sentence would be as in (23):

23. Ben Cumartesi futbol oyna-r-ım.  
I Saturday football play –AOR-1SG

Sađın tested three different grades, grade 7, grade 8 and grade 9 and concluded that this type of transfer decreases when the level of proficiency gets higher.

To sum up, the results of Sađın’s study show that subjects have difficulties in acquiring the rigid SVO word order of English. Turkish - German bilinguals use German word order features, rather than their native language word order features, in their L3 English. For instance, they tend to use pragmatic functions of German word order such as topicalization with the V2 feature in English, like the following;

24. In Hamburg live 1.7 million people there. (Sađın, 2006, p:80)  
topic V2

On the other hand, Turkish monolinguals are unsurprisingly influenced by Turkish word order features in their English production as they only have their Turkish to be transferred into their L2.

#### 1.4 Factors affecting transfer in L3A

It should be noted that there are crucial factors affecting the language transfer in L3A, as also partly touched upon in the studies mentioned so far. These are a) *linguistic typology of the languages*, b) *recency*, and c) *proficiency*. Let us consider these factors in a more detailed way.

##### 1.4.1 Linguistic typology of the languages

*Typological closeness of languages* (as called by Sađın) or *language distance* (as called by De Angelis) is commonly thought to be one of the most important factors for cross-linguistic influence (Cenoz, 2000; Sađın, 2006; De Angelis, 2007). De Angelis (2007) refers to *language distance* as the distance that a linguist can formally define between languages and language families. She explains that this distance is sometimes used to refer to the relationship or similarity between the features or components of two or more languages. However, the distance that learners perceive to exist between languages involved is called *perceived language distance* (De Angelis 2007) or *psychotypology* (Kellerman 1992, cited in Sađın 2006). The learner’s concept of *psychotypology* is built by the development of metacognitive skills and awareness (Kellerman 1992, cited in Sađın 2006).

Termining the distance issue differently, Sađın (2006) states that it is easier for the learners to identify cognate forms and structures when two languages are typologically close. Therefore, it is not always the mother tongue which is transferred while acquiring a new language. If there is another language which is linguistically more similar to the target language, then transfer may take place from that language. Briefly, languages perceived to be closer to the target language than other languages also in mind or human perception are seen as general facilitative factors and they are transferred. In Sađın's study, German and English possess more common features than Turkish has with English. The subjects in her study made use of German grammatical rules in their English production using finite and non-finite elements in positions that are taken from German. Findings of Sađın's study are compatible with the common propositions stated above among the researchers and her results also verified *language distance* as an important factor affecting language transfer in L3A.

Sađın talks about the general properties of the languages in her study by explaining that Turkish is a member of the Uralic and Altaic language family and is considered to have a canonical SOV order which is open to variations for some communicative purposes such as pragmatic functions of languages. Nevertheless, it does not mean that Turkish is a free word order language. However, word order can serve some pragmatic and semantic functions in Turkish. It is also mentioned in Sađın's study that German just like English, Dutch and Frisian belongs to the West Germanic group and is an Indo-European language. German is a slightly case-marked language which allows certain degree of flexibility in word order as grammatical relations are easy to maintain through morphology. Although there are some varieties in word order, everything especially the position of the verb, is still rule-governed. The other language mentioned and tested in Sađın's study is English. She explains that the English language belongs to the Western-Germanic branch of the Indo-European language family. Despite being not closely related, German, Dutch and Afrikaans are relatives to English, which is not surprising as they belong to the same language family. The relevant properties of English, Turkish and Dutch will be discussed more in Chapter II of this thesis.

Another important study about the influence of language typology in transfer is Cenoz (2001). He carried out a study with 90 elementary and secondary school students with Basque and / or Spanish as their L1s and English as their L3. The subjects had been learning English for four years. Cenoz investigated the influence of Basque and Spanish on English. All the students were asked to tell the wordless picture story 'Frog, where are you?' in English. The results of his study show that Spanish is the base language for all the subjects in this study. That is, her study indicates that *Typological closeness of languages* or *language distance* plays an important role in cross-linguistic influence. All subjects display a stronger influence from Spanish, an Indo-European language, than from Basque, a non-Indo European language. The data of this study are compatible with the other studies mentioned in this thesis. Like the other studies, Cenoz (2001) confirms the importance of language distance in cross-linguistic influence or language transfer.

Shortly, the results of L3A studies show that typological closeness of languages plays an important role for the L3 learners to make use of their L2 as a base language. Namely, cross-linguistic influence takes place when their L2 is typologically closer to their L3 than their L1. It has been stated by Sađın that speakers of non-European languages, such as Turkish or Chinese, who would like to learn a second European language will most probably transfer from their first European language rather than from their non-European L1s.

Thus, linguistic typology of the languages is analyzed as one of the important factors affecting L3A in this thesis as well as in the literature mentioned so far.

### 1.4.2 Recency

*Recency of use* or *recency effect* is another important notion in cross-linguistic influence. The notion of *recency effect* during the acquisition process refers to how recently a language has been used. Sađın (2006) states that the learners can remember an actively used language more than the languages they know but do not actively use. Willliams and Hammarberg (1998) propose that a recently used language is more likely to influence the target language being acquired. They also explain that the most recently used language, words and grammar require less activation for access than the non-recent languages, words and grammar.

Sađın talks about Green's (1986) study on code-switching and bilingual aphasia by mentioning that bilinguals and multilinguals have different activation levels in the languages they speak depending on the situation, place and context they are in. That is, they do not turn on and off any of their languages. According to Green, the amount of lexical inventions originating from a certain language is a sign of the activation level of that language in the speaker's mind. Dewaele's study (1998) follows Green's 'activation' argument. He investigated 'lexical inventions' in L3 production of Dutch L1 speakers. Some of these subjects had L2 French and L3 English while some of them had L2 English and L3 French. Cross-linguistic influence is visible for both groups. Dewaele concludes that the subjects with L2 French have Dutch L1 influence whereas L3 French learners rely more on their L2 English in lexical inventions. He states that the L2 French speakers have a higher level of Dutch L1 activation while L3 French speakers have a higher level of L2 English activation. He proposes that "the *active* language with the highest level of activation is the preferred one as the source of lexical information. Access to lemmas of languages that have a lower level of activation is partially blocked. It appears that the L1 is not necessarily always the dominant *active* language and access to its lemmas could accordingly be limited" (p:488).

Sađın mentions that Grosjean (1992) explains bilinguals and multilinguals have to choose certain speech modes in daily lives. They should choose a particular language according to the situation. For instance, while they are talking to monolinguals, they should use language A or B, which means being in a monolingual speech mode. However, while talking to the bilinguals speaking the same languages, their bilingual speech mode gets activated and they use both of their languages and even mix or switch between the languages. To be precise, they are further towards the bilingual end of the language mode continuum. Furthermore, a speaker chooses a base language which is highly activated and puts the other slightly less activated languages aside in their minds depending on the language mode continuum. Grosjean (2001) has the following list of factors influencing the language mode:

- a) the participant(s); factors such as language proficiency, kinship relation, usual interaction mode, language mixing habits,
- b) the situation; the presence of monolinguals, degree of formality and intimacy, physical location,
- c) the form and the content of the message; language used, type of vocabulary needed, amount of mixed language,
- d) the function of the language act,
- e) research specific factors such as the type and organization of the stimuli, the task used, etc.

Grosjean's language mode concept has turned out to be very valuable in multilingualism studies. This is relevant for the *recency* factor as the more recently activated or used language is taken as the base one and transferred depending on the active speech mode.

As stated in De Angelis (2007), Schmidt and Frota (1986) associated the *recency* concept with proficiency level claiming specifically that their subject who is a Portuguese learner with L1 English transferred from his most fluent non-native language (Arabic) which is the most recent one.

In a nutshell, *recency* is one of the factors conditioning L2's influence on L3. It has been proposed that L2 is activated more easily if it has been recently used. An easier access to the L2 is ensured in that way. Therefore, the recently used L2 influences the L3A more than the L1 (Hammarberg, 2001).

### 1.4.3 Proficiency

Another factor in cross-linguistic influence is *proficiency*. Proficiency has been debated in L2A as well as L3A. Sağın mentions that Cummins proposed that high level of L1 proficiency may have a positive effect on L2A (1981, cited in Sağın 2006, from Ellis 1994). He argued through his *Interdependence Principle* that the high level of L1 proficiency may be an advantage for L2. Cummins (1981) divided the proficiency in L2 into two types: *Basic Interpersonal Communication Proficiency* (BICS) and *Cognitive / Academic Language Proficiency* (CALP). BICS is about oral fluency and communicative sufficiency whereas CALP is related to linguistic skills and knowledge for academic proficiency. It has been proposed by him that L2 communicative skills and BICS usually takes about two years for the immigrant learners to be mastered while L2 grade norms of academic skills, namely CALP, can take from five to seven years for the same learners. In short, Sağın states that Cummins' concept of *interdependence principle* (mentioned above) is crucial in L2A as it proposes that high L1 proficiency does not only have cognitive and social advantages for the first language, but also L2A can benefit from the high L1 proficiency, which means they are actually *interdependent*. Cummins' *proficiency* division of BICS and CALP helps us understand what is actually meant with *proficiency* and what *proficiency* factor comprises.

De Angelis (2007) classifies proficiency as *proficiency in the target language* and *proficiency in the source language*. She mentions that most researchers agree with the idea that cross-linguistic influence or language transfer is more likely to happen in the early stages of acquisition. This is defined as the time when the learners' target language knowledge is still weak and in need of more guidance and development (Sikogukira 1993, Williams & Hammarberg 1998). However, this does not mean that cross-linguistic influence does not take place at more advanced levels of acquisition. As De Angelis presents, Odlin (1989) suggests that the types of transfer occurring at early or advanced stages of acquisition are most probably different as learners' competence and needs are different at different stages of acquisition. Furthermore, she mentions that transfer has been shown to equally take place from a non-native language with a high level of proficiency (Williams & Hammarberg 1998, Ringbom 1987) and from a non-native language with a low level of proficiency (De Angelis 2005, Rivers 1979, so on). She also suggests that one or two years of formal instruction in a source language is sufficient to influence the target language acquisition. On the other hand, De Angelis mentions Ringbom's study (1987) claiming that proficiency in the source languages determines the type of transfer which takes place in the target language. He proposes that proficiency level in the source non-native language does not need to be very

high for transfer of form, which is a superficial type of transfer, to occur in the target language. However, the transfer of meaning can only take place from the languages of high levels of proficiency and fluency. The results of Sađın's study are compatible with the other studies mentioned above. She also states that these subjects live in a L2 language environment and that they are also educated in their L2. The subjects of her study have a higher proficiency levels in their L2 German than their L1 Turkish.

To sum up, when the learners encounter difficulties with the L3, they are likely to favor their L2 knowledge more especially if they have higher level of proficiency and communicative competence in their L2 (Williams and Hammarberg, 1998). Hammarberg (2001) also includes *proficiency* among the factors conditioning an L2's influence on L3A. Therefore, *proficiency* is an important factor in L3A in terms of *language transfer*.

### 1.5 Interim summary

As it is clear in the literature mentioned so far, L2 plays an important and determining role in L3A. That is, L2, rather than L1, is transferred into L3 in the process of acquisition. Furthermore, there are *linguistic typology of the languages*, *recency* and *proficiency* factors which are very important and should be taken into consideration in L3A process.

### 1.6 Briefly my thesis

The literature mentioned so far investigates language transfer in L3A with respect to different topics such as DPs, negation placement, lexical categories and word order. None of those studies, except Sađın's, have targeted a minority group as subjects. My study is based on Sađın's study, but using a different methodology, different language group and testing the acquisition of different skills. The motivation for this study, first of all, is that there is hardly any study related to Turkish and language transfer in L3A research (except Sađın's, 2006). Secondly, thanks to its being a multilingual society, the Netherlands is one of the most appropriate countries in Europe to conduct a comparative study in L3A including Turkish minority groups. Sađın's study, described above, looks into more *production* skills of the students. My thesis, on the other hand, investigates *comprehension* on the same topic, word order, but with different language group (Dutch instead of German). My study will provide a room for cross-linguistic comparison, especially with Sađın's study, on language transfer in L3A. Sađın assumed that the elementary/ pre-intermediate level of English would be a more suitable level for the word order study, which is also assumed in this thesis. The L2 status and language transfer properties in L3A will be investigated further in my thesis in relation to certain word order properties through different languages to see the influence of Turkish as L1 and Dutch as L2 in English (L3) acquisition.

The factors affecting L3A, namely *linguistic typology of the languages*, *recency* and *proficiency*, are also very important for my thesis. Languages which are typologically closer to the target language, higher proficiency of L2 and recency may foster and accelerate the process of acquisition. Among the languages involved in my thesis, Dutch and English have more common features than Turkish has with English. Just like German, Dutch belongs to the West Germanic group and is an Indo-European language. It is closely related to other West-Germanic languages such as English and German. Dutch is described as an SOV language in my thesis. As it is explained in a detailed way in the following chapter, main clauses have an SVO order due to the V-to C movement. Therefore, like German, Dutch has SVO in main clauses, SOV in subordinate clauses and also the V2 property (Zwart, 1993).

The subjects of my thesis are Turkish - Dutch bilinguals. They have higher proficiency levels in Dutch and their L2 (Dutch) is more recent. Therefore, all these above-mentioned factors play important roles in my research as it is also an L3A study. Furthermore, my study may contribute to the education methodology with respect to L3 teaching, specifically the methodology of English language teaching to Turkish - Dutch bilinguals in the Netherlands.

The following chapter presents the syntactic descriptions and analyses of word order in English, Turkish and Dutch with respect to *topicalization* and *relative clauses (RCs)* in a comparative way.

## Chapter II

### Syntactic Background

This thesis examines the acquisition of L3 English word order by Turkish - Dutch bilinguals by specifically investigating *Topicalization* and *Relative Clauses* (RCs). Word order differs in English, Turkish and Dutch with respect to *Relative Clauses* (RCs) and *Topicalization*. This chapter gives the reader the relevant syntactic background by introducing RCs and topicalization separately in these three languages at issue.

For RCs, this thesis adopts Radford's (2004) analysis while topicalization analysis uses Koster (1978). Moreover, Dutch is treated as an SOV language throughout the thesis (Koster, 1975). It should be noted that Radford (2004) is used for all the syntactic trees in this chapter.

#### 2.1 Relative Clauses (RCs)

The first property under investigation is the formation of *Relative Clauses*, abbreviated as RCs. RCs have different structures in Turkish, English and Dutch. The basic difference lies in whether RC follows or precedes the head-noun it modifies. Based on this difference, this study investigates what kind of language transfer takes place in relative clauses with respect to heads (RC preceding the head vs. RC following the head). As exemplified in the following sentences, Turkish is a strict head-final language in which the RC precedes the head whereas in English and Dutch the RC follows the head;

1. a. *The girl who is eating an apple cake* saw the cat. (English)
- b. **Elmalı kek-i** **iyi-en** *kız* kedi-yi gör-dü. (Turkish)  
apple cake-ACC eat-An (RC suffix) girl cat-ACC see-PAST-3sg.  
"The girl who is eating an apple cake saw the cat."
- c. *Het meisje dat een appeltaart eet* zag de kat. (Dutch)  
the girl that an apple cake eat see-PAST the cat  
"The girl who is eating an apple cake saw the cat."

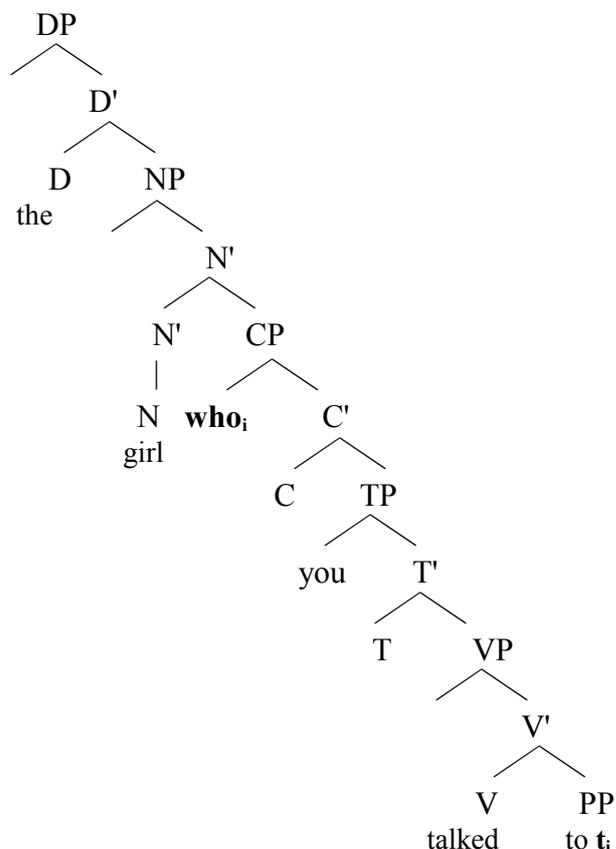
##### 2.1.1 Relative Clauses in English

As stated in section (2.1), English RC structure follows the head noun (italicized in examples 2) it modifies. RCs are a type of *Wh*-clause. They are called relative clauses as they have a relative pronoun (or a relative operator) in the structure (who, whose, which) that refers back or relates to an antecedent in a higher clause which is usually the one before the (bold-typed) relative pronoun (Radford, 2004). The examples in (2) below have relative pronouns which has undergone *wh-movement* and been placed in CP.

2. a. I know *the girl* [**who** you talked to].
- b. I know *the girl* [**to whom** you talked].
- c. Do you know *the book* [**which** we need]?
- d. I know *the book* [**that** we need].
- e. Do you know *somebody* [**whose book** we could borrow]?

Radford (2004) explains that relative *wh*-clauses display *wh*-movement without auxiliary inversion just like exclamatives do. He analyses them as CPs possessing a C with [WH, EPP], but no [tense] feature. Following this view, the RC in (2a) is analyzed such as the following:

(2a)

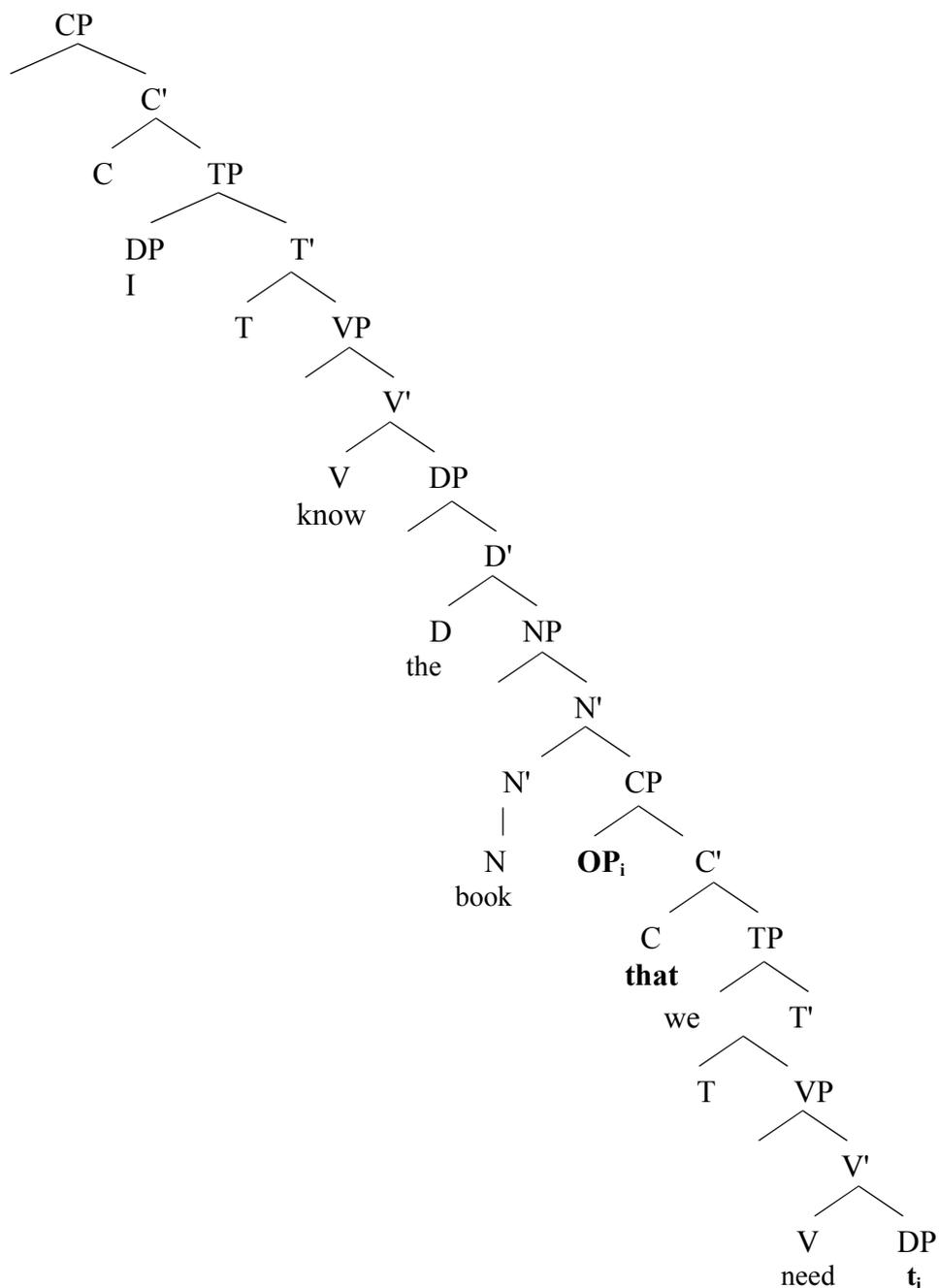


Radford (2004) states that ‘the [WH, EPP] features of the null C attract the closest maximal projection with a *wh*-word which is ‘who’ in the syntactic configuration above. Therefore, ‘who’ moves to Spec-CP deleting the [WH, EPP] features of C and forming the RC construction above. An alternative possibility is the sentence (2b) in a more formal style which preposes the whole PP so that *to* is pied-piped with the relative pronoun. The relative pronoun in formal styles as in (2b) is used in the accusative form *whom*.

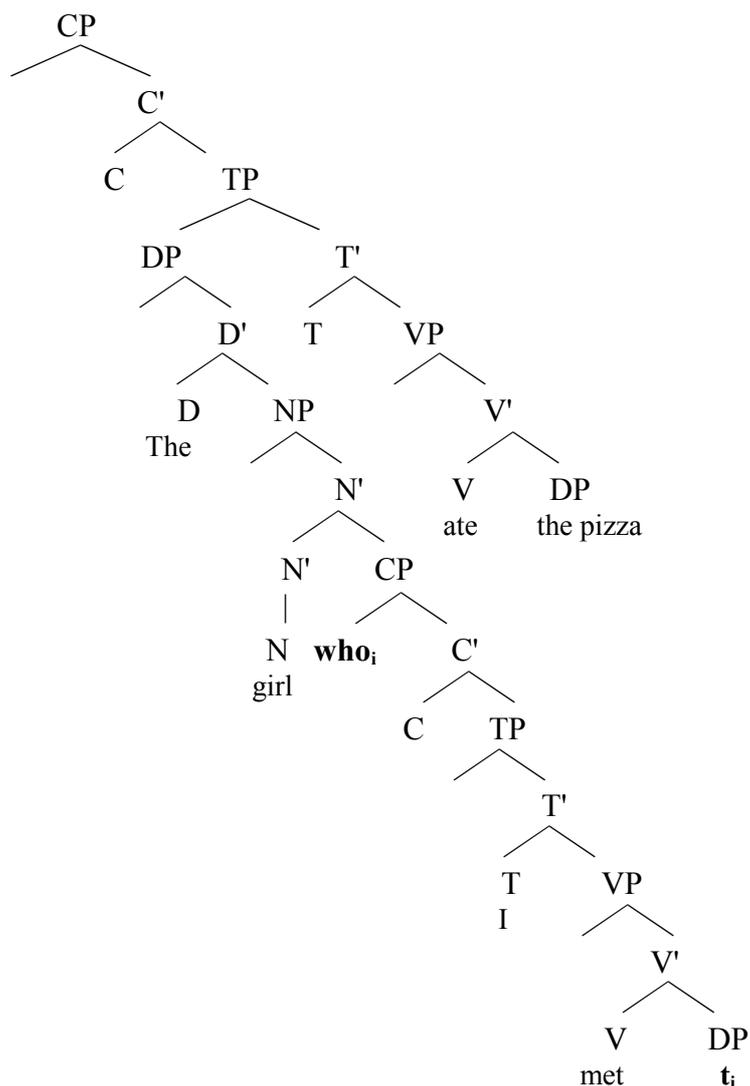
Hu and Liu (2007) explain that the [*wh*] feature triggers operator movement in RCs with the assumption that all movements are feature-driven. In the case of RCs, both the *wh*-phrase and a null operator called OP move overtly to the Spec-CP for feature checking purposes, leaving a variable trace ( $t_i$  above on the syntactic tree) (Chomsky 1995 cited in Hu & Liu, 2007, p:267). Therefore, *wh*- phrases like ‘who’, ‘which’, ‘whose’ in example (2) above move into the spec-CP to check the [+*wh*] feature. The null operator OP moves to the spec-CP to check the [-*wh*] feature. On the other hand, ‘that’ is the lexical realization of [-*wh*] feature in the sentence (2d) and it has been positioned in C position. In a nutshell, RCs in English are derived by *operator* movement under the analysis explained here (Hu & Liu, 2007).

The following configuration of example (2d) illustrates the RC type with ‘that’:

(2d) I know *the book* [**that** we need].



The examples explained so far are about object relatives (OR). The same characteristics and rules apply also in subject relatives (SR) in English. The following sentence is an example of English SR:

3. *The girl who I met ate the pizza.*

Although the relative pronouns are overtly spelled out as *who*, *whom*, etc. in the examples given so far, relative pronouns in English can also have a null spellout, namely being covert. These constructions are called *bare relative clauses* without any overt relative pronoun. Radford presents the following examples for bare relative clauses (2004, p:224, examples (82a) and (82b)):

4. a. It's hard to find people [*who* you can trust].  
 b. It's hard to find people [you can trust].

Although the bare relative clause does not have any overt relative pronoun, Radford states there is reason to assume that it has a null relative-pronoun and (4b) contains a null counterpart of *who*. He explains it by saying that the verb *trust* is a two-place transitive predicate requiring a noun or pronoun expression as its complement. In this case, *trust* does not have an overt object. That is why, there must be some kind of null object. The object must be a relative pronoun or relative operator assuming that all the relative clauses have a relative pronoun. Therefore, *who* can be given a null spellout as well, like in (4b). According to Radford, one reason for the null spellout may be that its person/ number/ gender features can

be identified by its antecedent, meaning that *who* refers back to *people* and can be identified as a third-person-plural animate pronoun even if *who* is deleted.

In short, as explained above under the analysis of Radford (2004), the English RC follows the head and contains a relative pronoun and a null operator (OP).

### 2.1.2 Relative Clauses in Turkish

As Çağrı (2005) explains, Turkish is a head-final agglutinative SOV language which has no overt *Wh*-movement or complementizers. That is, Turkish is a *wh*-in-situ language. Moreover, subject and object drop is observed in Turkish. Subjects and objects are only encountered for contrast, emphasis or other marked discourse purposes. That is, overt pronouns are unacceptable unless they are in sentences for a change in topic or contrast, as shown in the following example:

5. Selin ev-e            git-ti.            (\*O) uyu-du.  
 Selin house-DAT go-PAST.3sg. (\*She) sleep-PAST.3sg.  
 “Selin went home. She slept.”

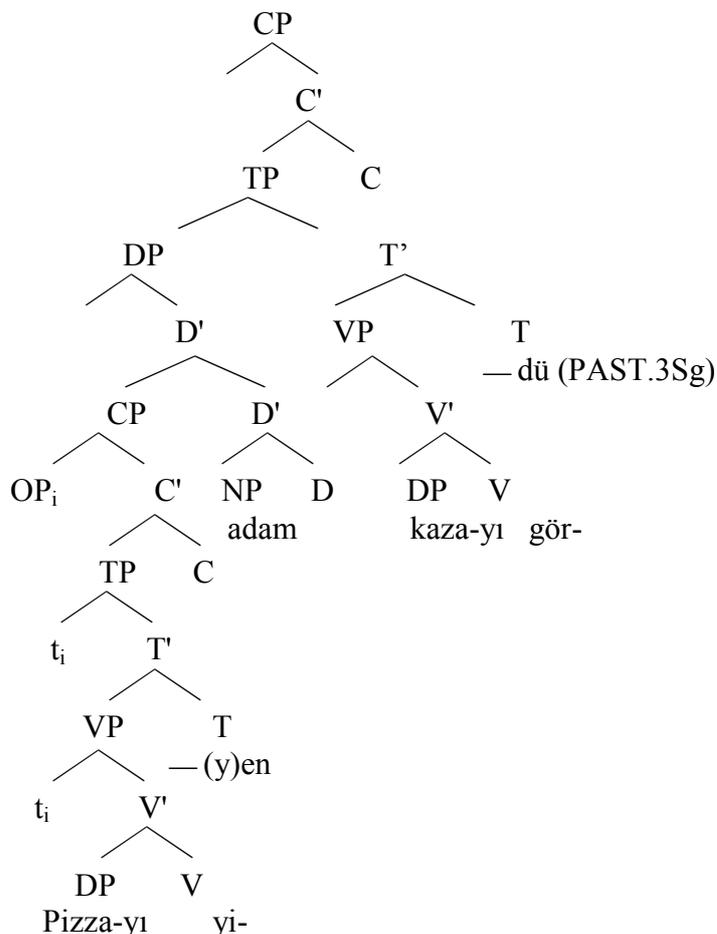
Turkish has two types of RCs. The first type is the *pre-nominal* (Çagri, 2005, p: 1, 2) or *prerelative* (Aygen, to appear) construction, which is native to Turkish. The other one is the *postrelative* type, which uses a complementizer *ki*, the equivalent of the relative pronoun *that* in English. This second type, *postrelatives*, was borrowed from Persian. These two types are different from each other both in position and syntactically relevant aspects (Aygen, to appear, p:1). The focus in this thesis, however, is the type of RCs which is native to Turkish, namely *prerelatives*. (Please refer to the note 1 for more information about postrelatives in the *notes* section in Appendix A).

#### *Prerelatives (native Turkish RCs)*

- (i) have a nominalized predicate with a special morphology
- (ii) don't have any Complementizer or any overt *wh*-element
- (iii) are non-finite

Same as the analysis by Radford (2004), Çağrı (2005) supposes that the internal gap site (sometimes referred to as the focus) of the RC is a +*Wh*-expression (or *Operator*) that undergoes A-bar movement to the Spec-CP. Namely, this covert OP (null operator) starts in spec-VP and moves to the spec-CP through movement to check [-*wh*] feature, just like in English, as shown in the following example:

6. **Pizza-yı yiy-en adam kaza-yı gör-dü.** (Turkish)  
 pizza-ACC eat-*An* (RC suffix) man accident-ACC see-PAST-3sg.  
 “The man who is eating the pizza saw the accident.”



Cagri (2005) states that RCs in Turkish show a subject/non-subject asymmetry. He explains that the subject in Turkish is relativized by the suffix *-An* added to the predicative complement without any agreement morphology whereas a non-subject element is relativized by *-DIK* suffix added to the predicative complement which requires conjugation in accordance with subject agreement morphology.

7. a. [kek-i yi-y-en] adam...  
 cake-ACC eat-SPart/ *An* man  
 “the man who eats the cake...”
- b. [adam-ın ye-diği] kek...  
 man-GEN eat-OPart cake  
 “the cake which the man eats...”

(Please see note 2 and 3 for more detailed syntactic analyses of (7a) and (7b) in the *notes* section in Appendix A).

Briefly, the RC suffix *-An* has no agreement morphology whereas *-DIK* suffix is followed by possessive morphology showing agreement with the subject of the embedded clause which is marked with genitive marker when the subject is overt (Cagri, 2005, p:5).

I will skip the details here as my research is not related to the details. Please refer to note 4 at the *notes* section in Appendix A for more detailed information about the differences a subject/non-subject asymmetry. Please see note 5 for Kornfilt's evaluation of Turkish RCs and note 6 for the restrictive and nonrestrictive RCs in Turkish.

To sum up, being different from English and Dutch, a Turkish RC precedes the head-noun and does not have a relative pronoun, which are the main issues in this study. Radford (2004) is used to analyze the Turkish RC example above.

### 2.1.3 Relative Clauses in Dutch

While analyzing the Dutch RCs, two basic assumptions are made in this thesis:

- a) Dutch is an SOV language
- b) In Dutch tensed main clauses, the verb moves to C

As stated by Zwart (1993), Koster (1975) is the first generativist treatment of the basic word order question in Dutch. His conclusion is that Dutch is an SOV language and the Dutch VP is head-final. Zwart states that the rule system related to the SOV word order is more economical. Koster also argues that the word order of the embedded clause in Dutch is more basic than the word order of the main clauses. This argument still exists in the minimalist approach. It is assumed that the verb in Dutch is in V in embedded clauses while it is in INFL or higher in main clauses. In conclusion, the verb in Dutch is considered to be in its basic position when it is inside the VP in embedded clauses. On the other hand, in main clauses, other considerations cause overt verb movement to C position. It is easy to see in Dutch that finite verbs have different positions in main and subordinate clauses respectively in the following examples:

8. Het meisje zag dat [de man basketbal **speelde**]. (SOV in subordinate clause)  
the girl see-PAST that the man basketball play-PAST  
"The girl saw that the man played basketball."
9. De man **speelde** basketbal. (V2 property)  
the man play-PAST basketball  
"The man played basketball."

As explained above, there is the V2 effect, meaning the movement of V to C in main clauses in Dutch as seen in (9) above. However, there is no V to C movement in embedded clauses as C is already occupied by the relative pronoun *dat* in (8) above.

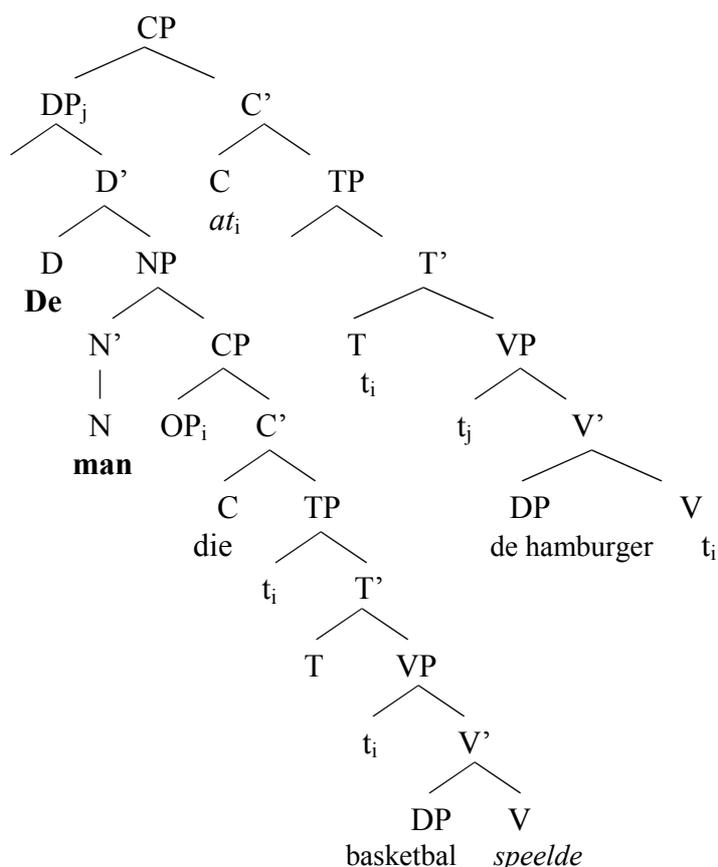
Koster (1975) argues for a single verb movement which is called *Verb Placement*. This movement derives the various main clause word orders in Dutch and moves the finite verbs to the left of the subject and to the right of a clause initial position called C. It has also been stated in Zwart that this C position must be substituted by either the subject (in subject initial main clause), or a *wh*-phrase (in *wh*-phrase constructions), or a non-subject (in topicalizations). This C position is filled by subsequent movements so that the verb occupies the second position in the final representations.

Kosmeijer (1991) explains the phenomenon "verb second". He says that this term refers to the second position finite verbs have in declarative main clauses of certain languages. Dutch is

one of the “verb second” languages. As stated in the literature i.e. by Holmberg & Rijkoff (1998) and Zwart (1993), the finite verb, in Dutch, always has to occupy the second position (V2) in matrix clauses no matter what pragmatic functions of word order take place. Travis (1991) states that ‘V2 effect’ does not appear when the clause has a complementizer because the C position is filled and V to C movement can not take place then.

In short, as RCs are also embedded clauses, verb occupies the sentence-final position in Dutch. As seen in example (10) below, there is no V to C movement in embedded clauses as C is already occupied by the relative pronoun which is *die* in sentence (10). That is why, the verb *speelde* in the relative clause is at the end of the embedded clause whereas the tensed verbs move to C in declarative main clauses no matter what is preposed. RC (*die basketbal speelde*) follows the head-noun (*de man*) in Dutch and has a relative pronoun (*die*) like in English, which is the main issue in this study. Radford (2004) analysis is used to analyze the following examples: there is *the covert OP* (null operator) again, just like explained for English. OP starts in spec-VP and moves to the spec-CP through movement to check [-wh] feature like in English.

10. [De man die basketbal speelde at de hamburger.  
 (RC verb) (V of the main clause)  
 the man who (Rel.PRN) basketball play-PAST eat-PAST the hamburger  
 “The man who played basketball ate the hamburger.”

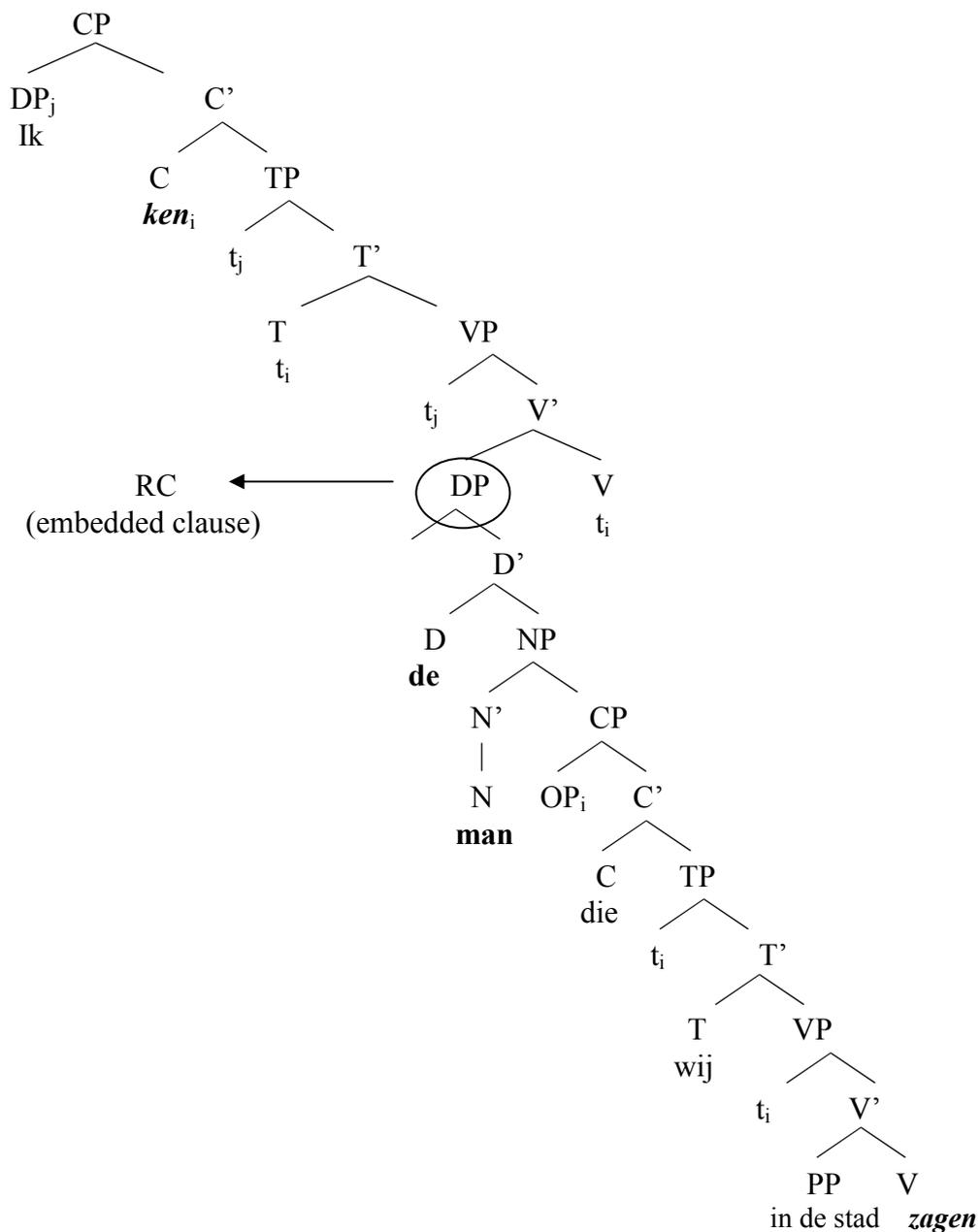


As seen in example (10) above, the verb of the embedded clause or RC ‘speelde’ (played) is in the final position of the clause while the verb of the main clause is much higher in C position.

Subject relativization (SR) and Object relativization (OR) do not display different syntactic structures in Dutch in terms of word order or the position of the verbs in the sentences. Example (10) is an SR case while the following example (11) shows a case of OR in Dutch.

The following RC sentence exemplifies OR and the characteristics with respect to Dutch word order presented so far:

11. Ik **ken** de man die wij in de stad **zagen**.  
 I know the man whom we in the city saw  
 "I know the man whom we saw in the city."



## 2.2 Topicalization

The second property under investigation is *Topicalization*. The sentence initial position is the *topic* position. As cited in Erguvanlı (1984), Noonan (1977) uses the term ‘sentence orientation’ to refer to the topic which is not subject in the sentence. He states “the choice of an item as the sentence orientation is motivated by the desire to link the predication with previous discourse or background to a discourse by specifying the entity in terms of which it makes sense to assert the rest of the predication” (cited in Erguvanlı, 1984, p: 49). Chafe (1979), as cited in Erguvanlı, says that topics are not necessarily the arguments of the verb. A constituent, other than the subject, which is fronted is the topic. Therefore, the pragmatic function of an element (other than the subject) which is in the sentence initial position is called the topic position. Briefly, topics are usually in the sentence initial position and are discourse dependent.

Topicalization in Turkish, English and Dutch behaves differently from each other and has different word order constructions in these 3 languages as exemplified below:

12. The gift, Pelin **gave** (it) to Sema. (English)

13. Hediye-yi<sub>i</sub> Pelin Sema-ya **t<sub>i</sub>** ver-di. (Turkish)  
 gift-ACC Pelin Sema-DAT give-PAST.3sg  
 “(Speaking of) the gift, Pelin gave (it) to Sema.”

14. Het cadeau **gaf** Pelin aan Sema. (Dutch)  
 the gift give.PAST Pelin to Sema

My study adopts Koster’s (1978) claim saying that topicalized constituents appear to the left of C, under the Spec-CP position which is called ‘topic’ node.

Based on Radford (2004), my thesis assumes that CP has the topic node which contains an [EPP] feature and uninterpretable topic feature. These features attract the maximal projection which carries an interpretable topic feature to move to the Spec-CP position.

Let us consider the differences between the 3 languages separately in a more detailed way.

### 2.2.1 Topicalization in English

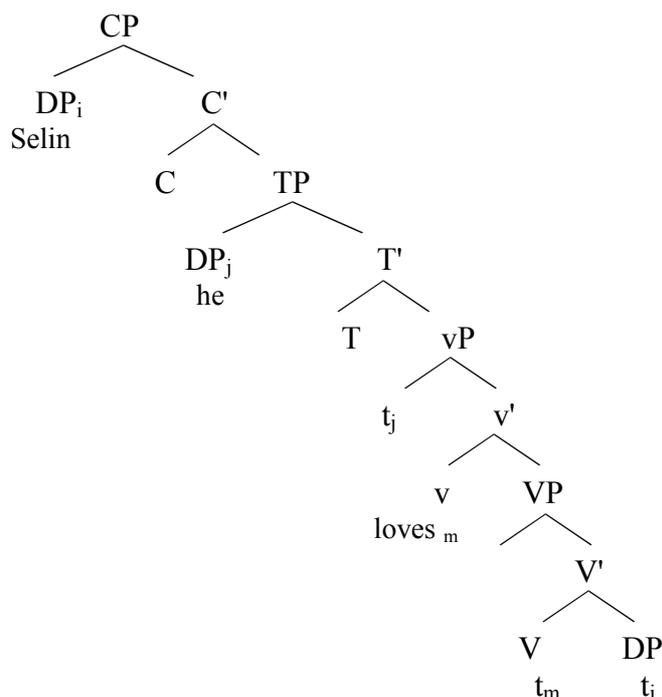
According to Greenberg’s (1963) language classification based on the unmarked sequential order of the subject, the verb and object, English is assumed to have a rigid SVO word order which is followed in both main and embedded clauses (Sağın, 2006, p:38). Different from many other languages, English has a stricter and more determined word order which lacks considerable freedom of arrangement. Although they are limited, there are also certain cases in which English shows some flexibility as well. These cases are: (1) adverbials can come in the beginning or at the end of a sentence, (2) indirect objects can come before or after a direct object, (3) adverbial particles in phrasal verbs can precede or follow an object, and lastly, (4) auxiliaries and subjects can be inverted under certain conditions. Apart from these cases, all deviations from SVO basic word order are highly marked and acceptable only under specific conditions (König 1987, cited in Sağın 2006, p:39).

Sağın (2006) mentions that topicalization is not a very common construction in English. However, adverbs of time and location can frequently be found in the initial position. In these

topicalization constructions, the subject comes before the verb and causes the verb to occupy the third position. As opposed to case-marked languages, English word order is less affected by pragmatic factors such as topicalization.

Therefore, SVO word order in English is quite rigid and it is not affected by topicalization excluding the element which is fronted via topicalization, just like the following example:

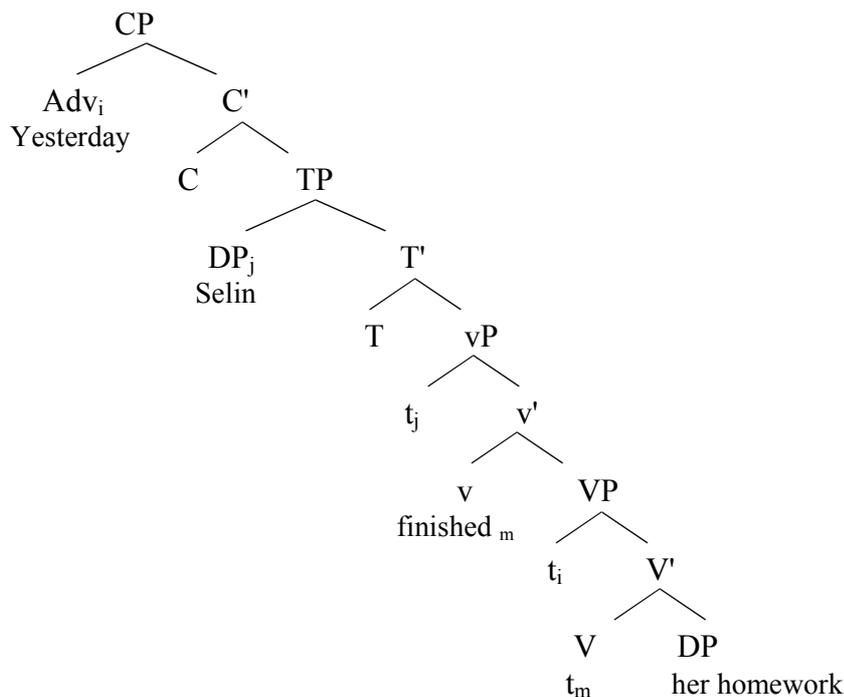
15. **Selin**<sub>i</sub>, he loves (t<sub>i</sub>).



Topicalization and *Left Dislocation* have very similar constructions in English. Gregory and Michaelis (2001) explain the differences between topicalization and Left Dislocation. I will not present the details here as it is not the focus of my study, so please see note 7 for more information in Appendix A.

The topicalized element is generally followed by a comma in English. The following example summarizes the topicalization structure and rules in English:

16. **Yesterday**, Selin finished her homework.



As observed, the word order in a sentence where topicalization has taken place is still SVO. The only difference is that there is the topicalized element *yesterday*, which is an adverb, in the front.

### 2.2.2 Topicalization in Turkish

As Sağın (2006) states, topicalization can only be generated via word order in Turkish. She also mentions that it is not possible to show topics through prosody in Turkish.

The topicalization mechanism does not cause any change in the word order of sentences in Turkish except the position of the topicalized component. The topicalized one is the only element which undergoes the movement to the sentence-initial position whereas the rest of the sentence structure remains the same, as can be observed in example (17) below.

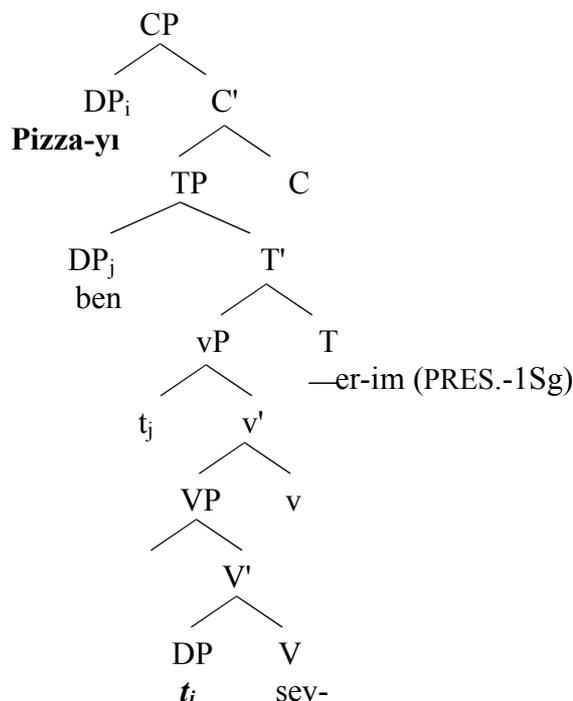
NPs, VPs, adjectives and adverbials are the typical constituents that can be topicalized (Sağın, 2006). Certain elements get topicalized because of their pragmatic function. When the subject is in the sentence initial position, it is considered to be an unmarked topic (Erguvanlı, 1984, p:51). Topics in Turkish comply with some of the criteria proposed by Li and Thompson (1976, cited in Erguvanlı, 1984) to differentiate topics from subjects. For instance, topics in Turkish have to be definite whereas that is not the case for subjects as shown below:

17. a. Ben pizza-yı sev-er-im.  
       I pizza-ACC like-PRES.-1Sg.  
       ‘‘I don’t like macaroni.’’  
       b. *Pizzayı* ben severim.  
       c. \*Pizza ben severim.

In sentence (a) above, ‘ben’ (I) is the topic as well as being the subject. In sentence (b), ‘pizzayı’ (the pizza) is topicalized and is in the sentence initial position. Also, it is definite. However, in (c), the topic ‘pizza’ is not grammatical as it is not definite.

Topics other than subjects are explained with a movement to the sentence initial position, as demonstrated in the syntactic tree of the sentence (17b) below;

- (17b) Pizza-y<sub>1</sub>      ben sev-er-im.  
 pizza-ACC      I    like-PRES.-1Sg.



As can be seen above, 'pizzay<sub>1</sub>' (the pizza), being topicalized, is moved from the DP position leaving its trace as  $t_i$  to the Spec-CP which is the sentence-initial position.

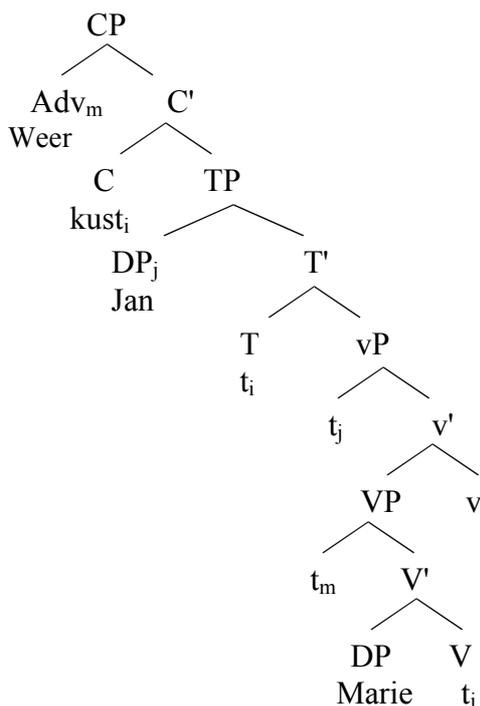
### 2.2.3 Topicalization in Dutch

As explained in section 2.1.3, Koster's analysis (1975) proposes that the SOV order of subordinate clauses is the basic word order in Dutch. In Dutch subordinate clauses, the finite verb is to the right of the object while the finite verb precedes the direct object in main clauses with the subject in first position.

Kosmeijer (1991) states that another difference between Dutch main and subordinate clauses can be observed through topicalization: word order in main clauses is 'topic-finite Verb-subject' due to the V2 property, while this order is not allowed in subordinate clauses. Topicalization structure in Dutch is shown below in the following example: (Zwart, 1996, p: 245)

18. a.      Weer *kust* Jan Marie  
               again kisses John Marie  
               "Again John kisses Mary."  
       b.      \* Weer Jan *kust* Marie  
               again John kisses Mary

(18a)

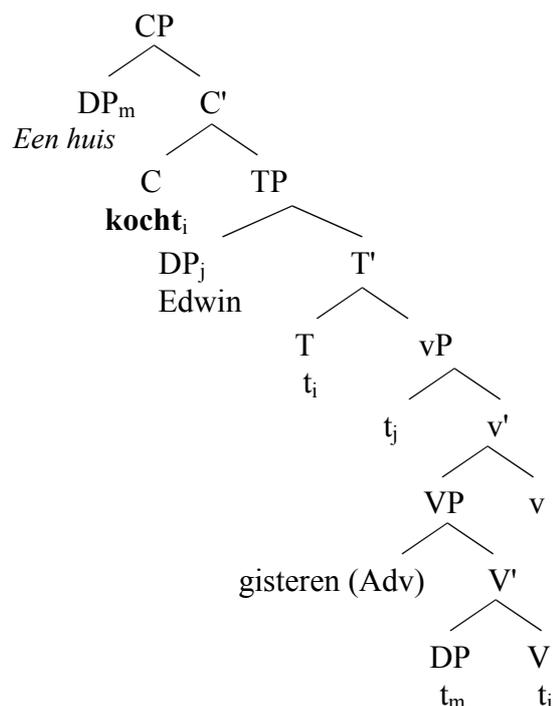


There is a construction bearing inversion in Dutch topicalization structures with the finite verb preceding the subject as can be seen in example (18) above.

The verb in inversion constructions, as in topicalization, is in C in Dutch (Zwart 1996, Den Besten 1977). Namely, the topicalized constituent itself is discourse dependent (*D-linked* as Zwart calls it). Therefore, Zwart (1996) assumes “C carries a feature that checks a corresponding feature on the fronted constituent, and percolates up to become a part of the label of the sentence as a whole (Chomsky 1993, p:32)” and Zwart refers to this feature as *d-feature* and to discourse dependency of the topicalized constituent as *D-linked*.

In conclusion, there is the V2 effect in topicalization structures in Dutch. When a constituent is topicalized, the verb is moved to the C position and there is a word order change through V to C movement in topicalization. The syntactic structure of topicalization of an adverb is presented above in example (18). The following example shows the syntactic analysis of a DP argument topicalization and V to C movement through the V2 property:

19. *Een huis kocht* Edwin gisteren.  
 a house bought Edwin yesterday  
 “A house, Edwin bought yesterday.”



*Een huis* (a house) in example (19) is topicalized and moved to the Spec-CP position. Due to the existence of the V2 effect in Dutch, the verb *kocht* (bought) moves from V to C position. Finally, the syntactic structure seen above is obtained after those movements in the Dutch sentence with topicalization, which is very prominent and remarkable for word order researches like this thesis.

### 2.3 Interim summary

As presented in this chapter, the word order, topicalization and RCs are realized differently in Turkish, Dutch and English. This study investigates these differences. Therefore, this chapter has presented how RCs and topicalization are formed, used and also how they operate in the languages at issue in this study.

Table 4 below provides an overview of the differences between the languages as shown in this chapter:

	<b>Turkish</b>	<b>Dutch</b>	<b>English</b>
<b>Word order for matrix clauses</b>	SOV	SVO; SOV= embedded clauses and underlying word order	SVO
<b>Topicalization</b>	No change in word order – no V2	V2 effect	No change in word order – no V2
<b>Relative Clauses</b>	RC <i>precedes</i> the head-noun	RC <i>follows</i> the head-noun	RC <i>follows</i> the head-noun

Table 4: Topic overview of the differences between the languages of research (Turkish, Dutch and English)

The following chapter presents the methodology and the experimental tasks of this study.

## Chapter III

### Methodology

This chapter first presents the research question, background assumptions and methods of the study. Then, some information about the experimental task and the *self-report* is given. Subsequently, the subjects who participated in the experiment and hypotheses are introduced.

#### 3.1 Research Question

As mentioned in Chapter I, this study has been carried out to obtain data on the stated research question regarding cross-linguistic influences in general and particularly word order transfer.

In this study, the following assumption is made based on Sağın (2006);

- There is *language transfer* both for monolinguals' L2 acquisition and bilinguals' L3 acquisition. Monolingual Turkish subjects will transfer their L1 into their L2.

This study aims to gather data about the cross-linguistic influence in general and in particular about the word order transfer. The research question of this study is:

- What type of word order transfer do native Turkish - Dutch bilingual students make in acquisition of English as an L3? Do they transfer from their L1 or their L2?

#### 3.2 Methods

##### 3.2.1 Grammaticality Judgment Task (GJT)

A Grammaticality Judgment Task (GJT) was carried out to find out the properties of language transfer in L3 acquisition.

As stated by McDaniel, McKee and Cairns (1996), a GJT can be used for the research in almost any area of syntax. They explain that a sentence is presented to the subject in a GJT and how it sounds is asked. In this study, the option 'Does this sentence sound *good* or *bad*?' was used.

A lot of syntacticians who study adult grammar choose to make use of GJT. This study made use of GJT as this is also an adult grammar study which is a very appropriate research type for GJT to be used. McDaniel and Cairns (1996) explain that the subjects of GJT are not distracted by any other game or another activity, which is an advantage of the task. Moreover, many different types of phenomena can be researched in a single study through GJT. Due to all those advantages mentioned above, a GJT was chosen for this study.

The GJT had around 65 sentences to be judged. 37 of these 65 were ungrammatical. 28 sentences were grammatical. There were 12 grammatical fillers among 28. Among the ungrammatical ones, 5 of them were fillers. Therefore, there were 17 filler items. In total, there were 48 test items, 32 of which were ungrammatical and 16 of which were grammatical. There are 3 conditions for each topic, topicalization and relative clauses. The first condition is *the correct English sentence type*. The second is *the sentence type reflecting*

*Dutch properties* on the specified topics in an English sentence, which means *L2-Dutch transfer* in L3. The last condition is *the English sentence type with Turkish characteristics*. For topicalization, there are 8 sentences for each condition, meaning 24 sentences, and for relative clauses, there are also 8 for each condition meaning 24 sentences. The following table shows the overview of the GJT items for bilinguals:

Number of items		
	RC	Topicalization
Correct English sentences	8	8
Sentences with Dutch properties	8	8
Sentences with Turkish properties	8	8
Grammatical Fillers	12	
Ungrammatical Fillers	5	
TOTAL	65	

Table 5: Overview of the GJT items for bilinguals

Example items are presented below:

- Test samples:

*Topicalization* item samples:

1. Yesterday, we celebrated our friend's graduation. **good / bad**  
(Correct English topicalization)
2. \*Yesterday celebrated we our friend's graduation. **good / bad**  
(L2-Dutch influence)
3. \*Yesterday, we our friend's graduation celebrated. **good / bad**  
(L1- Turkish influence)

*Relative Clause* item samples:

4. The child who ate the candy cried. **good / bad**  
(Correct English relative clauses)
5. \*The child who the candy ate cried. **good / bad**  
(L2- Dutch influence)
6. \*The candy ate the child cried. **good / bad**  
(L1- Turkish influence)

Monolinguals in Turkey had 45 sentences in total as the sentences with L2 Dutch influence were excluded in their test. There were 32 test items and 13 fillers among these 45 items.

(Please see Appendixes C and D for the GJTs for each of the subject groups)

### 3.2.2 Self-Report

Self-Report in this study is a way of learning about the bilinguals' linguistic background and how confident and proficient they feel in both languages.

The aim of this report is to get information about the educational, linguistic and personal background of the subjects. All subjects completed this self-report that included personal questions like name, date of birth, the jobs of the parents, gender and also questions related to

their knowledge of both languages (Turkish and Dutch) in their own perceptions such as how good they think they are in Dutch and Turkish with respect to reading, writing and speaking skills. The last question in the self-report was when they started learning English.

(Please see Appendix B for the complete self-report)

### 3.2.3 Procedure of the experiment

The bilingual subjects were first given the self-report just before the actual test *grammaticality judgment task*. Although this report was also carried out for Turkish monolinguals, it was not really necessary for the linguistic background of the monolinguals as they feel highly confident and proficient in their L1, Turkish.

Next, the GJT was administered. Both groups of subjects were presented 3 warm-up test items. They completed these 3 examples together with the experimenter. After making sure that they understood the task, they started with the actual test.

Although a comma should be used after the topicalized element in English, no comma was used in this GJT as this comma rule does not apply to Dutch and Turkish topicalizations. Therefore, the subjects were warned in the instructions that they did not need to worry about or correct any punctuation marks.

The same steps were applied in the same way in both groups of subjects (Turkish - Dutch bilinguals and Turkish monolinguals).

### 3.3 Subjects

Both quantitative and qualitative data were collected in the form of *Self- Report* and *Grammaticality Judgment Task (GJT)* from the students. Table 6 below provides the overview of the subjects in this study:

	<b>Turkish – Dutch Bilinguals</b>	<b>Turkish monolinguals</b>
<b>Total number</b>	24	44
<b>Number of females</b>	13	20
<b>Number of males</b>	11	24
<b>Mean Age</b>	15.2	19.6
<b>Max. age</b>	17	24.7
<b>Min. age</b>	12.8	16.4
<b>The mean time length of English learning</b>	3.5 years	4.5 years
<b>School type</b>	VMBO secondary school	Prep-school (in the first year of the university)

Table 6: Overview of the subjects

There are two groups of subjects with elementary / pre-intermediate level of English in this study. The first group consists of Turkish - Dutch bilinguals aged between 13 and 16 at VMBO level in secondary school. The reason why the level is VMBO is the fact that it is not the lowest level in secondary school. It should be noted here that Turkish people in the Netherlands are known to be attached to their L1. There have been studies about this

dependency on L1. One of them is the study by Aarts et al. (1993, cited in Extra & Verhoeven, 1993, p:15, 16) on Turkish and Arabic proficiency of Turkish and Moroccan children. They compared the bilingual subjects in the Netherlands with monolingual subjects in Turkey and Morocco. The results showed that the monolinguals are more proficient in their L1s than the bilinguals. Furthermore, Turkish - Dutch bilinguals have a higher proficiency level in Turkish than Moroccan - Dutch bilinguals have in Arabic. Therefore, the proficiency level gap in L1s between bilinguals and monolinguals are bigger for Moroccan – Dutch bilinguals (Extra & Verhoeven, 1993, p:15, 16). This result shows that Turkish people in the Netherlands are more attached to their L1 and speak their L1 more than Moroccans. However, neither of these two groups is familiar with using their L1s in written forms. This missing familiarity with written forms usually keeps the proficiency gap open between monolinguals and the above-mentioned bilingual groups.

The second group consists of the monolingual Turkish students aged generally between 16 and 20 at preparatory school year (the first year) of university. There are students in Turkey in elementary / pre-intermediate level with respect to comprehension and production skills at preparatory school year of university. These two groups were specifically chosen as subjects for this study.

The subjects are chosen with the school instructors' guidance and after consulting them about what they think about the students. The criteria of selection were related to the amount of language input, motivation and sense of responsibility of the students. The teacher made sure that they took the experiment seriously by telling the students that the test would be counted as one of their quizzes or oral exams.

Information about the socio-economic status, abbreviated as SES, of the students was also obtained as it would make a difference in their access to language tools and opportunities such as traveling to the USA or UK where the native language is English, buying expensive language learning sets, language books, English language magazines, etc. The self-report was used to learn about their SES. However, there were unavoidable SES differences between the bilinguals and monolinguals. Some of the Turkish people in the Netherlands do not prefer and some of them do not get the chance of studying in higher education institutions like university or HBO (reported based on personal communications with Turkish community in Utrecht). However, monolinguals in Turkey usually aim for university studies.

### 3.4 Hypotheses

This study has the following hypotheses:

- a. In the acquisition of English word order with respect to *topicalization* and *relative clauses*, Turkish - Dutch bilingual students will accept the English sentences with Turkish and Dutch word order as grammatical and they will change the canonical positions of sentence constituents and reorganize the sentences to meet the pragmatic needs according to the rules of the languages they learnt before.
- b. In their acquisition of English word order, Turkish - Dutch bilinguals will rely on their knowledge of Dutch more than Turkish due to *language distance*, *recency* of the L2A and higher *proficiency* level in Dutch as they lack formal education in Turkish, live in L2 environment and are exposed to L2 in their natural language learning setting.

Evidence supporting hypothesis (a) would be that the subjects apply Turkish or Dutch word order while learning English. If they judge the Dutch word order in their English sentences as *good* in the GJT, then the conclusion will be that they transfer from their L2, but not from L1, which would serve as evidence supporting hypothesis (b). However, if they use their Turkish as the base language and judge the Turkish word order in English sentences as *good* in the GJT, then this would be evidence against hypothesis (b) which then leads to the conclusion of the existence of L1 transfer in L3A. In the case of the existence of L1 transfer, there should be lower acceptance rate for English sentences with Dutch word order properties.

The following chapter presents the results of my research.

## Chapter IV

### Results

This chapter, firstly, evaluates the filler items. Then, the group results are presented separately. Next, the results of monolinguals and bilinguals are compared. Later, individual results for monolinguals and bilinguals are given. After that, analyses of corrections are brought in. Finally, bilinguals' self-report results and an additional analysis on gender are presented. The data are analyzed through SPSS statistical program in this study.

#### 4.1 Fillers

There were no subjects excluded in this study. Bilinguals and monolinguals showed the same patterns for most of the fillers by judging them quite successfully meaning at least 70% or higher. However, there were 4 fillers which displayed different and less successful results (much less than the 70% success of the other fillers). These fillers were the following sentences:

- F1. Selin is going to be studying all day tomorrow.
- F10. Where Selin did went yesterday?
- F14. What did Ayşe seen when she went shopping tomorrow?
- F17. If you don't have an umbrella in the rain, you were have got wet.

As for the Filler 1, F1, 33.3% of bilinguals and 45.5% of the monolinguals incorrectly judged it to be wrong. There is no correlation between bilinguals and monolinguals for F10 as 50% of the bilinguals incorrectly judged it to be good whereas only 4.5% of the monolinguals judged it wrongly. As for F14, 58.3% of the bilinguals incorrectly judged it to be good. It is only 25% of the monolinguals judging it to be good. F17 is also a filler on which many bilinguals and monolinguals failed. The percentages of the subjects incorrectly judging it to be good are 45.8% for bilinguals and 47.7% for monolinguals.

#### 4.2 Group Results

This section first presents the results for monolinguals, then for bilinguals and finally the comparisons of the two groups' results.

##### 4.2.1 Turkish monolinguals

The following table presents the performance means of the Turkish monolingual subjects. When the subjects judged a sentence to be grammatical, this was scored as 1. When the subjects judged a sentence to be unacceptable, this was scored as 0. For each condition, the minimum score is 0 and the maximum score is 8 as there are 8 test items per condition. For the topE and RCE conditions, the target score was 8. However, for the topT and RCT conditions, the target score was 0.

Monolingual Turkish Average Rating				
Conditions <sup>3</sup>	Minimum Acceptance	Maximum Acceptance	Mean Acceptance	Std. Deviation
topE	0	8	6.4	1.92
topT	0	7	0.84	1.76
topD	-	-	-	-
RCE	3	8	6.11	1.41
RCD	-	-	-	-
RCT	0	4	0.7	1.23

Table 7: Monolingual Average Rating

When the mean acceptances are compared, there are significant differences between topE - topT and also between RCE - RCT. Monolinguals' mean acceptance for topE is 6.4 while it is 0.84 for topT. The same pattern is observed for RCs. The mean acceptance for RCE is 6.11 whereas it is 0.7 for RCT.

The following figure shows the performances of Turkish monolinguals in percentages on the 4 conditions they had in the experiment:

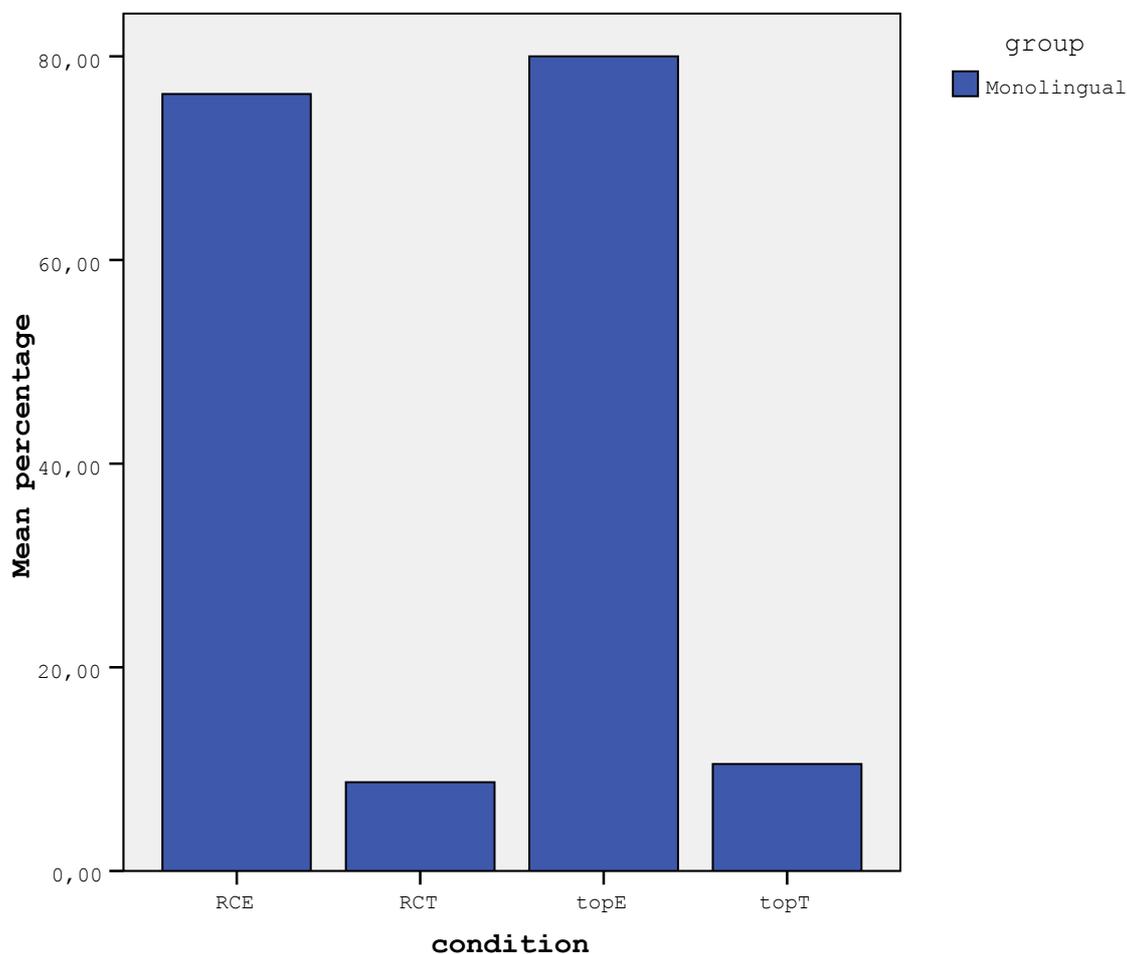


Figure 1: Monolinguals' Percentages of Average Acceptance Ratings

<sup>3</sup> *top* corresponds to *topicalization* and *RC* to *relative clause*. The letters next to these abbreviations are the initials of the languages at issue in this study, so topE: Topicalization in English, topT: English Topicalization in Turkish word order, topD: English Topicalization in Dutch word order, RCE: Relative Clause in English, RCT: English Relative Clause in Turkish word order, RCD: English Relative Clause in Dutch word order.

Table 7 shows that there are differences between the performances of the Turkish monolinguals on the four conditions they were presented with. A *Paired Samples t-test* was used to analyze if the observed differences are significant.

<b>Monolinguals' Paired Samples Test</b>				
<b>Comparisons</b>	<b>t</b>	<b>Std. Deviation</b>	<b>df</b>	<b>p-value (2-tailed)</b>
Pair 1: topE-topT	13.667	2.71	43	.000
Pair 2: RCE-RCT	16.06	2.23	43	.000

Table 8: Difference between paired conditions for monolinguals

As Table 8 shows, there are significant differences between the performances of the monolinguals on the topE – topT and RCE – RCT condition pairs ( $p < .001$ ). That is, there are significant differences between the performances of monolinguals in English sentences with Turkish word order and in English sentences with correct word order. The Turkish subjects judge English sentences with the correct English word order to be grammatical more often than English sentences with a Turkish word order.

#### 4.2.2 Turkish - Dutch bilinguals

The following table presents the performance means of the Turkish - Dutch bilingual subjects:

<b>Bilingual Average Rating</b>				
Condition	Minimum Acceptance	Maximum Acceptance	Mean Acceptance	Std. Deviation
topE	3	8	5.95	1.57
topT	0	6	2.25	1.87
topD	3	8	6.08	1.55
RCE	1	8	5.6	1.73
RCT	1	7	2.6	1.63
RCD	1	8	5.8	1.99

Table 9: Bilingual Average Rating

Table 9 shows the average acceptance rating for the bilingual subjects per condition. The minimum and maximum acceptance rates are almost the same for RCs. When the mean acceptances are observed, it can be seen that the scores for topT and RCT are much lower than the other conditions with the scores of 2.25 and 2.6.

The following figure shows the performances of Turkish - Dutch bilinguals in percentages on the 6 conditions they had in the experiment:

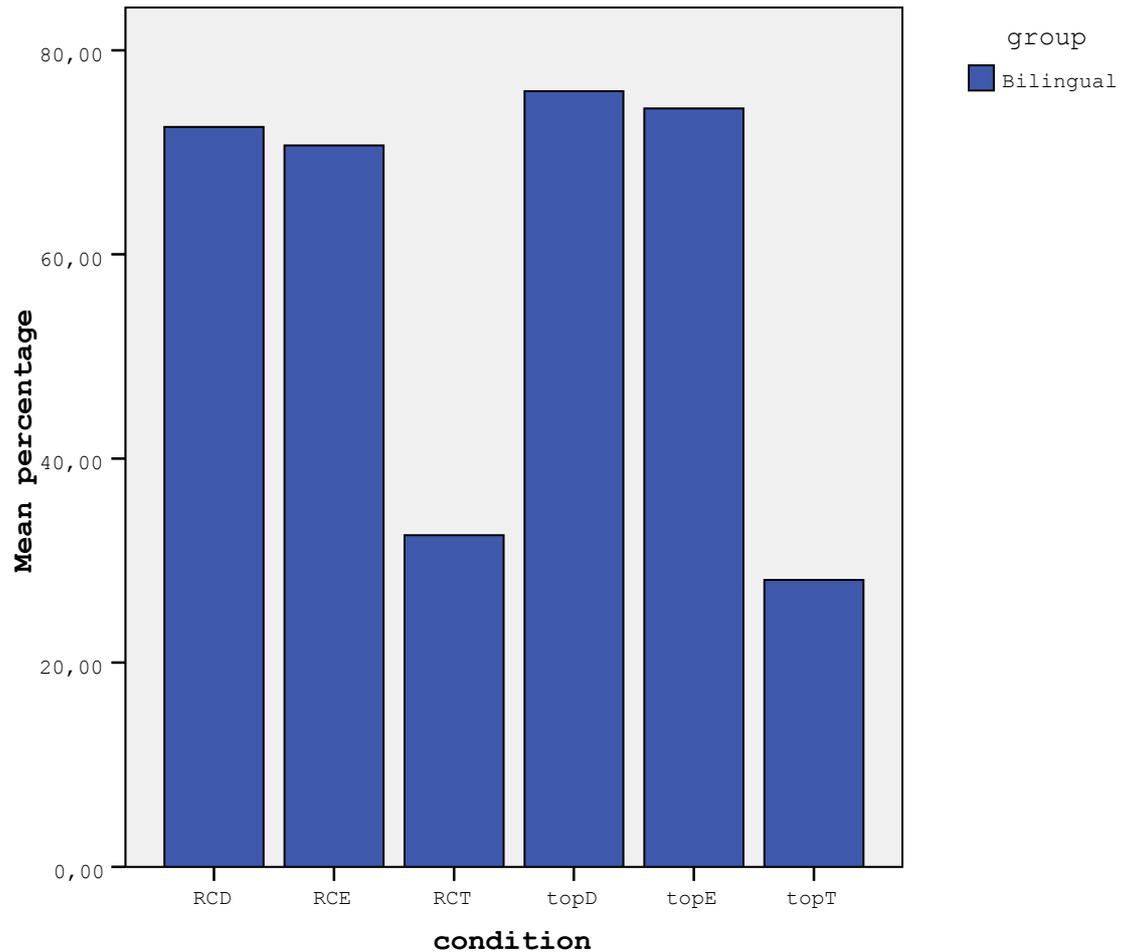


Figure 2: Bilinguals' Percentages of Average Acceptance Ratings

Just like for the monolinguals, there are differences between the performances of the bilinguals on the 6 conditions they were presented with. To be able to see the differences, a MANOVA test was carried out on the data. The reason why MANOVA was used is that I tested multiple independent variables at the same time and wanted to include within-subjects effects.

MANOVA results			
Conditions	df	F	P-value
TOP	2.69	40.64	.000
RC	2.69	24.302	.000

Table 10: MANOVA results of bilinguals

As can be observed in Table 10, there are significant differences between the performances of the bilingual subjects on at least two of the levels of the TOP condition (i.e. topE, topT and topD). Furthermore, there are also significant differences between the performances of the bilinguals on the different levels of the RC condition (i.e. RCE, RCT and RCD). A *Post-Hoc, Tukey*, test was carried out to see which condition contrasts are significant. The following table presents the results of the Tukey test:

Multiple Comparisons			
Dependent Variable	Condition 1	Condition 2	P-value
<b>TOP</b>	Tukey HSD	topE – topT	.000
		topE – topD	.964
		topT – topD	.000
<b>RC</b>	Tukey HSD	RCE – RCT	.000
		RCE – RCD	.945
		RCT – RCD	.000

Table 11: Significance values of all possible condition comparisons

As Table 11 shows, when the differences of bilingual performances on each condition are compared, almost all the comparisons of differences are significant with the values of  $p < .001$  except the comparisons of the pairs topE - topD and RCE - RCD with values above  $p > .9$  leading to insignificant differences.

### 4.2.3 Cross-group comparisons

The following table presents the differences between bilinguals' and monolinguals' average acceptance rates:

Average Acceptance Rating %		
Conditions	Monolinguals	Bilinguals
topE	80.0	74.3
topT	10.5	28.1
topD	-	76.0
RCE	76.3	70.7
RCT	8.7	32.5
RCD	-	72.5

Table 12: Bilingual &amp; Monolingual Acceptance Rates

These percentages are based on the performance means of the two groups of subjects. It shows the comparison of bilinguals' and monolinguals' average acceptance rates for each condition. When two groups of subjects are compared in terms of their average ratings, this table tells us that there are differences between the two groups.

Another question is whether the differences between monolingual and bilingual performances on each condition are significant or not. An *Independent Samples t-test* was used to analyze the differences between two groups of subjects and to see if the differences are significant for each condition. The following table presents the results for this test:

Conditions	T	df	Mean Difference	P-value (2-tailed)
topE	-1.032	66	-.47348	.306
topT	3.081	66	1.40909	.003
RCE	-1.147	66	-.44697	.256
RCT	5.460	66	1.92045	.000

Table 13: Significances of differences between monolinguals and bilinguals on each condition

As seen in Table 13, the performance differences between monolinguals and bilinguals are not even close to being significant for the conditions topE and RCE ( $p > .001$ ). However, the differences on the topT and the RCT conditions are highly significant at the 1% level.

The following figure shows the performances of the bilingual and monolingual subjects in percentages:

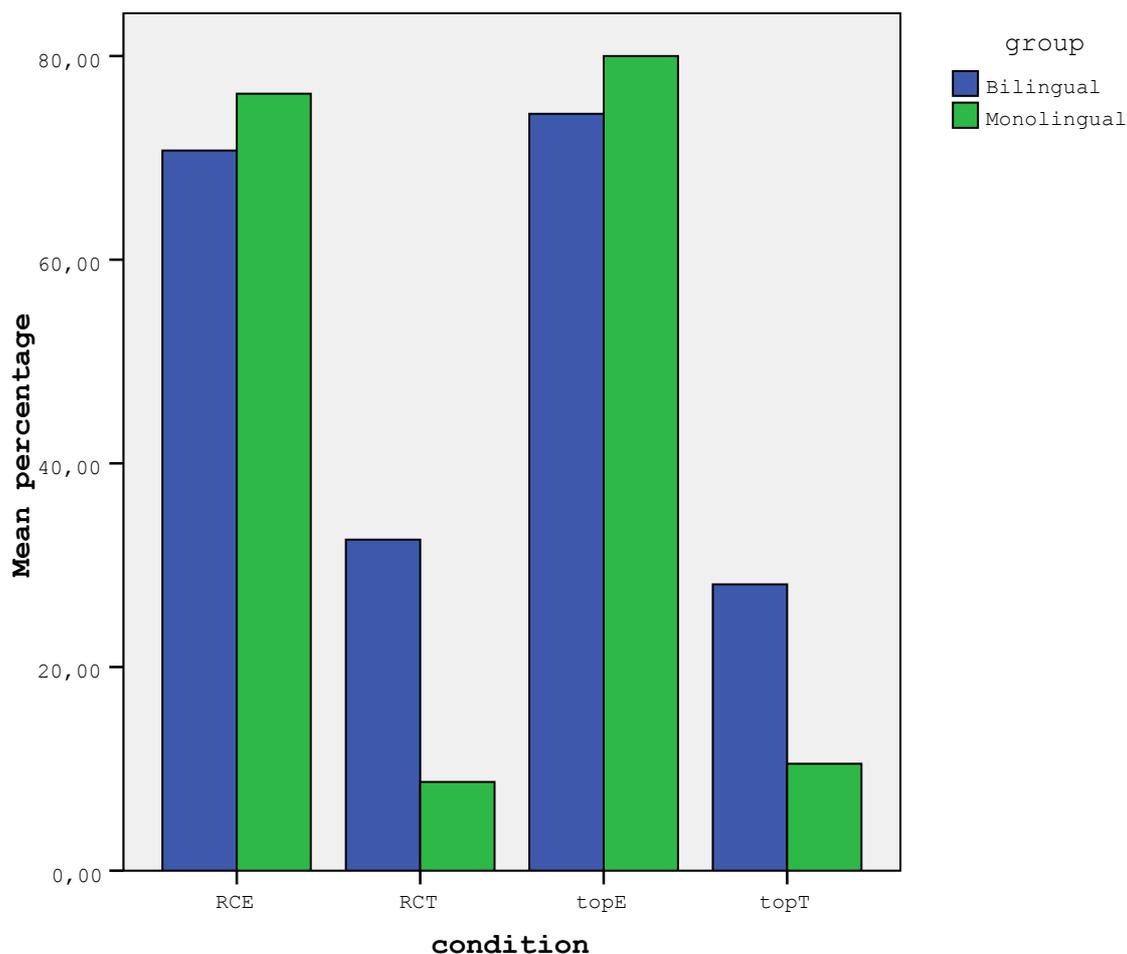


Figure 3: Percentages of Average Acceptance Ratings

### 4.3 Self-Report results of the bilingual group

As the following table shows, the majority of Turkish - Dutch bilinguals believe that their Dutch language skills are slightly better than their Turkish skills. A lot of bilinguals, with the percentage of 70.8, think that their Dutch reading skills are very good and grade it with the highest point in the scale. The majority of the bilinguals agree on the high grades in the scale for their Dutch language skills whereas they are more scattered in the scale for their Turkish language skills as shown in Table 14 below:

Percentages of per proficiency level %					
Language + Skills	1 (very bad)	2	3	4	5 (very good)
Turkish Reading	4.2	12.5	20.8	41.7	40.8
Turkish Writing	4.2	8.3	37.5	29.2	20.8
Turkish Speaking	4.2	8.3	8.3	41.7	37.5
Dutch Reading	4.2	-	-	25.0	70.8
Dutch Writing	4.2	4.2	4.2	20.8	66.7
Dutch Speaking	-	8.3	12.5	29.2	50.0

Table 14: Bilinguals' Self-Report Summary

The important question to ask here whether there is any correlation between self-reports and bilinguals' performances. This question can be answered after the necessary analysis is made through *Pearson Correlation*:

Correlation				
	topT	RCT	topD	RCD
Self-report Turkish	$r \geq .158$ $p \geq .461$	$r \geq -.081$ $p \geq .707$	-	-
Self-Report Dutch	-	-	$r \geq -.088$ $p \geq .683$	$r \geq -.326$ $p \geq .121$

Table 15: Correlation between self-reports and performances

As Table 15 shows, none of the p-values in the table are significant ( $p > .05$ ), which implies that there is no significant correlation between self-reports and the performances of the Turkish - Dutch bilinguals on the test conditions.

#### 4.4 An additional result: gender

Does 'gender' play a role on the performances? The differences between females and males are analyzed with the use of *Mann-Whitney Test*. As Table 16 shows below, the differences between female and males for monolinguals are not significant for any of the conditions:

Monolingual gender differences			
Condition	Mann-Whitney U	Z value	Asymp. Sig. (p-value)
topE	223.5	-.405	$p \geq .686$
topT	196.5	-1.273	$p \geq .203$
RCE	239	-.024	$p \geq .981$
RCT	199.5	-1.185	$p \geq .236$

Table 16: Monolingual gender differences

For bilinguals, the results show differences between genders only for the topD condition. We also have Dutch topicalization and RC conditions to analyze for bilinguals at this point.

Bilingual gender differences			
Condition	Mann-Whitney U	Z value	Asymp. Sig. (p-value)
topE	67.5	-.236	$p \geq .820$
topT	67	-.268	$p \geq .820$
topD	29	-2.514	$p < .001$
RCE	49	-1.330	$p \geq .207$
RCT	56	-.950	$p \geq .392$
RCD	52.5	-1.122	$p \geq .277$

Table 17: Bilingual gender differences

Table 17 shows the results for the bilinguals. As it can be seen in the table, there is a significant difference between females and males for only topD condition for the bilingual group.

#### 4.5 Individual Results

This section presents, first, the individual results for monolinguals. Then, it shows the bilinguals' individual results. In Tables 18 and 19 below, when the subjects accepted 8, 7 and 6 out of 8 test items, their scores fell into 'acceptance' category. When they judged 2, 1 and 0

sentences out of 8 as good, their judgments were placed in ‘rejection’ category whereas 5, 4 and 3 accepted judgments fell into ‘mixed’ one in Tables 18 and 19.

#### 4.5.1 Turkish Monolinguals

The following table presents the individual results of Turkish monolinguals:

Number of monolinguals according to their scores in conditions									
	Acceptance			Mixed			Rejection		
	8/8	7/8	6/8	5/8	4/8	3/8	2/8	1/8	0/8
<b>topE</b>	17	8	10	5	0	1	1	1	1
<b>topT</b>	0	2	0	1	1	1	3	5	31
<b>RCE</b>	9	10	10	8	6	1	0	0	0
<b>RCT</b>	0	0	0	0	2	4	4	3	31
<b>Total no. of monolinguals</b>	44								

Table 18: Monolinguals’ individual results

As the highlighted numbers in Table 18 show, monolinguals’ acceptance rate of correct English sentences (topE & RCE) is higher than the acceptance rate of the sentences with Turkish word order (topT & RCT). The rejection rate of the sentences with RCT and topT items were totally rejected with 0/8 score by 31 subjects. The general pattern for 42 subjects is the same for topicalization and RCs. Namely, their acceptance of sentences with English word order is higher than the sentences with Turkish word order. However, for topicalization, there are 2 monolinguals whose patterns are the very opposite as seen under topT with 7/8 score in Table 18. Those 2 subjects incorrectly accepted 7 topT sentences out of 8, which means that their number of accepted topT sentences is higher than the number of accepted topE sentences. When we observe the judgments of these two subjects more carefully, one subject judged 6 out of 8 topE sentences and 7 of the 8 topT sentences to be grammatical. The second student correctly judged all of the topE sentences as *good*, but accepted 7 of the 8 topT sentences. As for the RC results, there are also two subjects whose patterns are different than the others. These subjects judged the same number of RCT and RCE sentences to be correct. When their judgments are observed, both of these students accepted 4 RCE and 4 RCT sentences as *good*.

#### 4.5.2 Turkish - Dutch bilinguals

Table 19 below shows Turkish - Dutch bilinguals’ individual results:

Number of bilinguals according to their scores in conditions									
	Acceptance			Mixed			Rejection		
	8/8	7/8	6/8	5/8	4/8	3/8	2/8	1/8	0/8
<b>topE</b>	4	7	4	4	3	2	0	0	0
<b>topT</b>	0	0	2	3	0	3	5	8	3
<b>topD</b>	6	4	6	3	4	1	0	0	0
<b>RCE</b>	3	5	7	4	2	2	0	1	0
<b>RCT</b>	0	1	1	2	1	3	11	5	0
<b>RCD</b>	5	5	6	4	1	1	0	2	0
<b>Total no. of bilinguals</b>	24								

Table 19: Bilinguals’ individual results

As seen in Table 19, the bilinguals' acceptance rate of topE, topD, RCE and RCD is higher than their 'mixed' and 'rejection' rates while their rejection rate is the dominant category for topT and RCT. For topE and RCE conditions, 7 subjects correctly accepted 7 sentences out of 8. For topD, 6 subjects incorrectly accepted 8 sentences and other 6 subjects incorrectly judged 6 sentences out of 8 as *good*. Six subjects accepted 6 RCD sentences to be correct. On the other hand, the rejection rate is higher with 11 subjects accepting 2 sentences for RCT and 8 subjects accepting 1 out of 8 sentences. There were also 4 subjects with equal numbers of RCT and RCD acceptance (with the numbers of 5, 7 and two 1s). There were 2 subjects with higher RCT acceptance. One of them had 5 RCT and 3 RCE sentences judged to be correct whereas the other one accepted 6 RCT and 3 RCE as *good*. There was also 1 bilingual with equal number (1) of RCE and RCT judged as grammatical.

#### 4.6 Analyses of corrections

The subjects were not asked for correction for all the test items. Turkish monolinguals were provided with correction space for 9 test items while Turkish - Dutch bilinguals had 17 test items for correction. It should be noted here again that not all the subjects corrected all the sentences. Sometimes they did not know how to correct them although they judged the sentences as *bad*. These results, presented below, belong to the subjects who corrected the sentences, not to all 44 monolinguals or 24 bilinguals.

The following sentences exemplify the correction types and are presented as a reminder to make the results on corrections clear. For topicalization, an example test item which is an English sentence with Turkish word order (topT type) is presented in sentence (a):

- a. Yesterday my sister coffee **drank**. (topT)

When the subjects correct sentence (a) by changing it into topD type, sentence (b) is produced. However, sentence (c) is formed when they correct it into topE which should be the right correction:

- b. Yesterday **drank** my sister coffee. (topD)  
c. Yesterday my sister **drank** coffee. (topE)

For relative clauses, an example test item which is an English sentence with Dutch word order (RCD type) is given in sentence (d):

- d. **The child** who football *played* cried. (RCD)

When sentence (d) is changed correctly into RCE for correction, sentence (e) is formed. When it is incorrectly changed into RCT, it turns out to be sentence (f) below:

- e. **The child** who *played* football cried. (RCE)  
f. Football played **the child** cried. (RCT)

##### 4.6.1 Analyses of monolinguals' corrections

The following table presents the distribution of the number of monolinguals' corrections according to the correction types:

Corrected test items and types	Correction types and the number						Total number of corrections per test item
	topE	topT	non-topicalized English word order	RCE	RCT	Other	
<b>RCT</b> items (1&3)				item 1: <b>8</b> item 3: <b>9</b>		item 1: <b>15</b> item 3: <b>20</b>	item 1: <b>27</b> item 3: <b>29</b>
<b>RCE</b> items (2&9)						item 2: <b>8</b> item 9: <b>1</b>	item 2: <b>8</b> item 9: <b>1</b>
<b>topT</b> items (4&5&7)	item 4: <b>18</b> item 5: <b>12</b> item 7: <b>27</b>		item 4: <b>17</b> item 5: <b>18</b> item 7: <b>7</b>			item 4: <b>1</b> item 5: <b>2</b> item 7: <b>1</b>	item 4: <b>36</b> item 5: <b>42</b> item 7: <b>35</b>
<b>topE</b> items (6&8)			item 6: <b>3</b> item 8: <b>3</b>			item 6: <b>1</b>	item 6: <b>4</b> item 8: <b>3</b>

Table 20: Distribution of the number of monolinguals' corrections according to the correction types

Except the RCE (2, 9) and topE (6, 8) items, all the items, namely RCT (1, 3) and topT (4, 5, 7), should have been corrected. As seen in Table 20, there were two RCT sentences to be corrected, 1 and 3. Twenty-seven subjects tried to correct item 1. Eight of them were successful to put them into RCE whereas 15 of them tried to correct the sentences in other ways: Two subjects (out of fifteen) corrected them by adding adverbials like “after, when” to connect the sentences rather than a relative pronoun, but most of the times these “other” attempts resulted in wrong sentences. The same pattern is observed for item 3 with 9 corrected RCT into RCE and 20 other corrections. A lot of corrections were carried out for topT items which are 4, 5 and 7. A high number of subjects, 18 for item 4, 12 for item 5 and 27 for item 7, could correct topT sentences by changing them into topE. However, there were also a remarkable number of subjects changing the sentences into non-topicalized English word order. As Table 20 shows, for RCE items, 2 and 7, a few subjects tried to change them thinking that they were incorrect.

#### 4.6.2 Analyses of bilinguals' corrections

The following table presents the distribution of the number of bilinguals' corrections according to the correction types:

Corrected test items and types	Correction types and the number						Total number of corrections per test item
	topE	topD	non-topicalized English word order	RCE	RCT	Other	
RCT Items (1&7&16)				item 16: 2		item 1: 5 item 7: 7 item 16: 6	item 1: 5 item 7: 7 item 16: 8
RCD items (2 &10 &13)				item 10: 2 item 13: 2	item 2:1	item 2: 4 item 10: 1	item 2: 5 item 10: 3 item 13: 2
topD items (3&4&8)	item 3: 1 item 4: 2		item 3: 1 item 4: 7 item 8: 3			item 8: 1	item 3: 2 item 4: 10 item 8: 4
RCE Items (5&6&17)						item 17: 1	item 5: 0 item 6: 0 item 17: 1
topT items (9&11&14)	item 9: 1 item 11: 2 item 14: 1	item 9: 6 item 11:2 item 14: 6	item 9: 4 item 11: 6 item 14: 5			item 9: 2 item 11: 1 item 14: 1	item 9: 13 item 11: 11 item 14: 13
topE items (12&15)		item 12: 2 item 15: 3	item 12: 1 item 15: 1				item 12: 3 item 15: 4

Table 21: Distribution of the number of bilinguals' corrections according to the correction types

As bilinguals had topD and RCD items to judge (different from monolinguals), they had more sentences to correct if the correction was necessary. Just like the case for monolinguals, except the RCE (5, 6, 17) and topE (12, 15) items, bilinguals also had to correct all the items, namely RCT (1, 7, 16), RCD (2, 10, 13), topD (3, 4, 8) and topT (9, 11, 14).

As Table 21 shows, bilinguals had 3 RCT items, 1, 7, and 16, to correct. They tried to correct these items in "other" ways while 2 bilinguals could change item 16 into RCE. Turkish - Dutch bilinguals did not have problems with RCE items, 5, 6 and 17 except 1 subject who tried to change item 17 in "other" ways. There were two subjects who could correct the RCD items 10 and 13 as RCE. For item 2, there was one subject who changed this RCD item into RCT. For topT items, many of them who corrected them changed the sentences into topD although there were also subjects who changed the items into a non-topicalized English word order as many as changing it into topD. For instance, 6 subjects changed item 9 into topD type whereas 4 subjects corrected it with non-topicalized English word order and 1 subject could correct it into topE. topD items, on the other hand, were not corrected by a lot of subjects. Item 3, 4 and 8 were corrected by some subjects in non-topicalized English word order while there were also a few students who could change the items into topE. Lastly, topE items, twelve and fifteen, were changed into topD by a few subjects while there was 1 subject for each topE item changing them into non-topicalized English word order.

#### 4.7 Interim summary

This chapter, firstly, have shown that there were 4 filler items which displayed different and less successful results. Then, it has been found out, in group results, that Turkish monolinguals' topE and RCE acceptance scores were higher than their topT and RCT scores. Just like the case for monolinguals, it has been shown that the differences between their performances in topT, RCT and topE, RCE are significant. Bilinguals' topT and RCT acceptance rates were lower than the other conditions. Later, a cross-group comparison was made and it has been found that there are differences between the two groups of subjects. These differences were significant for topT and RCT conditions. Next, it has been shown that there is no significant correlation between self-reports and the performances of the Turkish - Dutch bilinguals on the test conditions. After that, an extra result on *gender* appeared mentioning that the differences between males and females were not significant except for the topD condition in bilinguals' case. Then, individual results have shown that the rejection rates of topT and RCT conditions are higher for both groups of subjects. Lastly, the analyses of corrections were presented in this chapter.

## Chapter V

### Discussion and conclusions

#### 5.1 Discussion

As presented in Chapter III, this thesis investigates what type of language transfer Turkish - Dutch bilingual students make in their acquisition of English as an L3. The main question is whether they transfer from their L1 (Turkish) or L2 (Dutch). This chapter discusses the extent to which the data collected support each of the assumptions and hypotheses of this study.

It was shown in Chapter IV that there were differences between Turkish monolinguals' performances in each condition. The monolinguals accepted topicalized sentences and RCs with English word order as *good* significantly more than topicalization and RCs with Turkish word order. Later, it was found that the mean performance differences between topE - topT and RCE - RCT pairs are highly significant. As for the Turkish - Dutch bilinguals' results, it has been found that their judgments for correct English sentences and English sentences with Dutch properties do not differ significantly. However, their topT and RCT acceptance rates are much lower than topE, topD, RCE and RCD ones. It has been observed that the differences between bilinguals' performances per condition are highly significant except the differences between topE - topD and RCE - RCD condition pairs. These results and bilinguals' high acceptance of topD and RCD lead us to the conclusion that Turkish - Dutch bilinguals transfer their L2 Dutch significantly much more than their L1 Turkish into their L3 English word order acquisition in terms of topicalization and RCs. Later, monolinguals and bilinguals were compared to see whether the differences between their performances on the relevant conditions are significant. The section 4.2.3 showed that the differences between the two groups of subjects on the conditions topE and RCE are not significant while the results displayed significant differences on topT and RCT conditions. As seen also in Figure 3, Turkish - Dutch bilinguals accept Dutch word order more often than Turkish word order, which suggests that they use their L2 Dutch as the base language more than their L1 Turkish to transfer in their L3A. Furthermore, their L1 transfer is higher than Turkish monolinguals' L1 transfer.

Let us continue with the assumptions of this study. This study assumed that there is language transfer both for monolinguals' L2A and bilinguals' L3A. It was also assumed that monolingual Turkish subjects would transfer from their L1 into L2. As seen in the results, we have found evidence supporting the assumption that there is language transfer for bilinguals' L3 while monolinguals have not met the expectations for the language transfer and have not transferred much from their L1 into L2, based on the significant differences between topT - topE and RCT - RCE condition pairs. Monolingual individual results show that there are only two students who have their L1 Turkish influencing dominantly their L2 English with respect to topicalization. It has been observed, in their performances, that they still apply the Turkish word order rules more than the English rules for topicalization in English. There are also two students who score equally well on RCT and RCE. These are the same two students who have the dominance of Turkish word order in topicalization. After looking into their judgments in the task, it is seen that their English proficiency level is lower than the other subjects in this study (meaning lower than elementary / pre-intermediate level in English).

The next question is to what extent the data collected support the hypotheses. In Chapter III, two hypotheses were presented; these are repeated here:

- c. In the acquisition of English word order with respect to *topicalization* and *relative clauses*, Turkish - Dutch bilingual students will accept the English sentences with Turkish and Dutch word order as grammatical and they will change the canonical positions of sentence constituents and reorganize the sentences to meet the pragmatic needs according to the rules of the languages they learnt before.
- d. In their acquisition of English word order, Turkish - Dutch bilinguals will rely on their knowledge of Dutch more than Turkish due to *language distance*, *recency* of the L2A and higher *proficiency* level in Dutch as they lack formal education in Turkish, live in L2 environment and are exposed to L2 in their natural language learning setting.

(a) is a more general hypothesis. If (a) is correct, Turkish - Dutch bilinguals would judge topT, topD, RCT, RCD sentences to be grammatical and reorganize their English topicalization and RC sentences according to rules of the languages they learnt before, meaning either according to their L1 Turkish or L2 Dutch. Hypothesis (b) is more specific in that it predicts that these subjects would transfer from their L2 Dutch rather than L1 Turkish. The results of this study confirm these two hypotheses. The results in Chapter IV show that there is language transfer for these bilinguals and the mean percentages indicate that this transfer is from their L2 Dutch. Multiple comparisons between conditions support L2 Dutch transfer even more with the significant differences between topT - topD, RCT - RCD conditions and higher acceptance on topD and RCD. These results also verify hypothesis (b) which predicts that Turkish - Dutch bilinguals rely more on Dutch word order rules in their L3 English. For instance, one test item for topicalization was an English sentence with Turkish word order:

1. Sometimes Onur his family **visits**.

75% of the bilingual subjects judged this sentence as *bad* in the GJT and corrected the sentence like in the following which has the Dutch topicalization word order:

2. Sometimes **visits** Onur his family.

Another test item for topicalization had topT order as in the following:

3. Yesterday my sister coffee **drank**.

Six subjects out of 13 changed sentence 3 above into a topD type as in sentence 4:

4. Yesterday **drank** my sister coffee.

Furthermore, the following sentence was one of the RC test items which is an English sentence with Dutch word order:

5. The child who football played cried.

80% of the bilingual subjects judged this sentence as *good* in the GJT, which shows L2 transfer.

The reasons why bilinguals transfer from their L2 rather than L1 are suggested to be the factors affecting L3A, mentioned in Chapter I, such as *language distance*, *recency* of the L2

Dutch acquisition and also their higher *proficiency* level of Dutch. The first reason Turkish - Dutch bilinguals transfer from their L2 Dutch is language distance factor. As explained in Chapter I in a detailed way, language distance is suggested to be a very important factor in L3A. As English is closer to Dutch than it is to Turkish and as Turkish - Dutch bilinguals realize this distance at the beginning stage, these bilinguals transfer more from their L2. Namely, they feel their L1 is linguistically too unrelated to be relied on. Secondly, recency is another factor affecting the language transfer type in this thesis. Dutch is the most recent language the subjects have experienced learning. That is why, they are more inclined to use their Dutch knowledge in their L3A. The last reason is proficiency level. Their Dutch proficiency level is higher than their Turkish proficiency level due to a variety of reasons: First of all, they live in an L2 environment. Secondly, their acquisition of literacy takes place in L2 Dutch. The fact that they receive the formal education in Dutch and thus learn how to read and write in Dutch plays a very important role. It means that they have a better command of Dutch grammar and language. Therefore, their proficiency level in L2 Dutch is higher than their L1 Turkish. The self-report results also confirmed this higher L2 proficiency of the subjects in this thesis. That is why, they make use of their L2 more than L1 in their L3A.

Turkish monolinguals judged their proficiency for Turkish mostly as 5 on a scale from 1 to 5 and they reacted as “Of course, I am very good at Turkish”, so they feel highly proficient in their L1. When the self-report results and the Pearson Correlation analysis are investigated for bilinguals (please see Tables 14 & 15) in the results chapter, it is seen that there is no significant correlation between bilinguals’ self-reports and performances. According to their self-report results, the difference between their Dutch and Turkish language skills is not really big as Table 14 shows. However, their mean acceptance for RCD transfer is 5.8, and for topD it is 6.08 whereas their mean acceptance for RCT is 2.6 and for topT it is 2.25. The results have shown that their acceptances of the English sentences with Dutch word order almost equal to the double amount of acceptances of the English sentences with Turkish word order. That is why, the conclusion is that the correlation between self-report results and the performances is not significant.

Analyses were also made to compare Turkish monolinguals and Turkish - Dutch bilinguals with respect to Turkish language transfer. Results show that there are significant differences between monolinguals and bilinguals with respect to topT and RCT. The conclusion from this analysis is that the Turkish language transfer mean of bilinguals is higher than the monolinguals’ Turkish transfer mean. The reason why bilinguals transfer more Turkish than monolinguals could be related to the issue of literacy in Turkish. Monolinguals study Turkish grammar and language for many years at school whereas bilinguals do not study their L1 and L1 grammar at school in the Netherlands. Therefore, the first possible reason could be the lower Turkish proficiency levels of Turkish - Dutch bilinguals’ in all language skills. Based on their higher proficiency in Turkish language, Turkish monolinguals realize the differences and typological distance between English and Turkish while bilinguals take more time to master those differences and the distance between their L1 and L3. Moreover, Turkish monolinguals learn English in Turkey and most of the time Turkish explanations are provided at elementary / pre-intermediate level. They are also taught English by emphasizing the differences between Turkish and English languages to make the learning process easier. However, Turkish - Dutch bilinguals do not have the chance of receiving the same information focusing on the differences between Turkish and the other languages or they never acquire certain aspects of Turkish properly. That is why, in their English language acquisition, bilinguals’ L1 transfer mean is higher than the monolinguals’ L1 transfer mean. In short, based on these findings, it can be concluded that Turkish monolinguals transfer their

L1 into their L2 English less than Turkish - Dutch bilinguals transfer their L1 Turkish into their L3 English in their acquisition of English word order with respect to topicalization and RCs.

Another important question is why monolinguals transfer from their L1 Turkish into L2 English in Sađın's study (2006) and why the subjects do not transfer from their L1 into L2 although their proficiency levels and ages are almost the same. The main answer to this question lies in the differences between the methodologies and the skills tested in these two studies. Sađın tested production skills whereas this thesis investigates the language transfer in English word order through GJT which tests more comprehension skills. At elementary / pre-intermediate level, monolinguals still transfer from their L1 Turkish in production skills while this is not the case for grammaticality judgments which require comprehension skills more than production, as found in this study, because they have more time to evaluate the sentences as they see the sentences written in front of them in GJT. Therefore, the differences between this study and Sađın (2006) actually results from the timing difference in the acquisition of production and comprehension skills assuming that comprehension precedes production (Ingram 1974 cited in Håkansson & Hansson 2000, p:314; Roberts 1983).

## **5.2 Conclusions**

With respect to grammaticality judgments, Turkish - Dutch bilinguals transfer their L2 Dutch rules rather than their L1 Turkish while they acquire word order in their L3 English. Turkish monolinguals, on the other hand, make use of their L1 while acquiring L2 English word order much less than bilinguals do in their L3 English in their grammaticality judgments which require more comprehension rather than production skills.

## **5.3 Notes for further research**

It was not possible to balance the SES between the Turkish monolinguals and Turkish - Dutch bilinguals in this study, which was expected due to the differences between communities. The parents of the monolinguals have jobs which require higher education levels such as pharmacist, teacher etc. while the parents of the bilinguals mostly have jobs which do not require any education, such as gardener, cleaner, etc. In my further research, I would try to balance their SES in a better way trying to find more educated Turkish - Dutch families, if possible. If their SES was balanced more, my expectation is that Turkish - Dutch bilinguals would be less influenced by their L1 as their Turkish proficiency level would be possibly higher and they would be more aware of the typological differences between Turkish and English. However, this issue needs further research.

Although it was not one of my research questions, I analyzed the role of gender on the performances of both monolingual and bilingual subjects. As shown in Table 16 in the results chapter, gender does not play any significant role for the monolingual subjects. On the other hand, it does affect the topD condition for the bilingual group as Table 17 in chapter IV illustrates. Interestingly, the difference between genders is not significant for RCD condition. Bilingual females are influenced more by the different topicalization word order of Dutch in their L3 English acquisition. The role of gender is another topic for further research.

Furthermore, due to time limitations, including also English and Dutch monolinguals as control groups was not possible in this study. In that way, having English monolinguals would give us the opportunity to see how they acquire topicalization and RCs in their L1 and the

opportunity to compare how it can differ in L2A and L3A with the effect of language transfer. If Dutch monolinguals were added to this research, it might be possible to see whether they are influenced by their L1 and how they differ from Turkish - Dutch bilinguals who are also highly influenced by their Dutch. It might also be possible to make some conclusions referring to UG with respect to word order acquisition through broader comparisons after including English and Dutch monolinguals and seeing how they would perform on the same test. However, further research is definitely needed to be able to make any strong claims about the possible results with the inclusion of English and Dutch monolinguals in this research.

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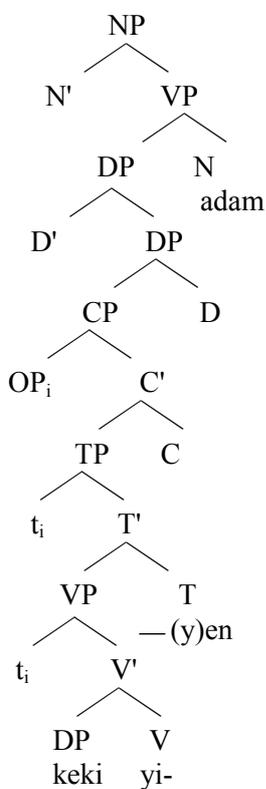
## APPENDIXES

APPENDIX A  
NOTES FOR CHAPTER II

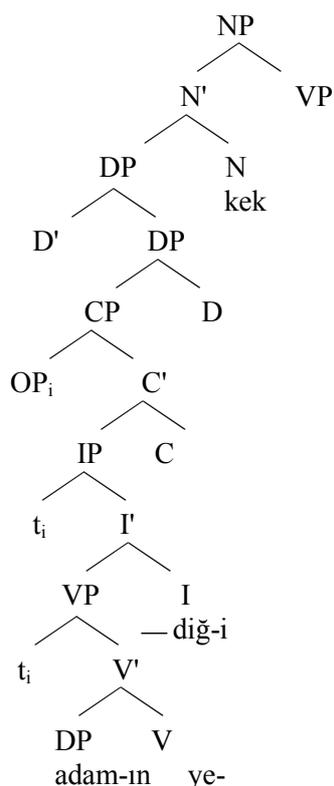
<sup>1</sup> Different from *Prerelatives*, *Postrelatives* have fully inflected verbal predicate and a Complementizer and they are finite. These properties and the differences between prerelatives and postrelatives can be observed in the following examples:

1. Sınav-a çalış-an arkadaş-ım, sinema-ya gel-me-yecek.  
exam-DAT study-An(RC suffix) friend-POSS cinema-DAT come-NEG-FUT.3sg
2. Arkadaş-ım ki sınav-a çalış-ıyor, sinema-ya gel-me-yecek.  
friend-POSS.1sg. COMP exam-DAT study-Pres.Cont.3sg cinema-DAT come-NEG-FUT.3sg  
“My friend, who is studying for the exam, is not coming to the cinema.”

<sup>2</sup> The syntactic tree for sentence (a) is like in the following:



<sup>3</sup> The syntactic tree for sentence (a) is like in the following:



<sup>4</sup> *-DİK* and *-An* are non-future tenses whereas *-AcAk*, which can also be used in Relative Clauses both for subject and object relativizations, is a future tense suffix. That is, *-DİK* and *-An* are relative markers without any tense whereas *-AcAk* is both a relative and a future tense marker.

3. Konferans-ta konuş-acak adam geç gel-ecek.  
 conference-LOC speak-*AcAk* (RC suffix) man late come-FUT.3sg.  
 ‘‘The man who will speak at the conference will come late.’’

The following table presents the logical possibilities as four possible combinations for Turkish relative clauses in the grammar. This table also shows that only the NSR form with a subject gap (item 3) is not found in the grammar among the four possible combinations with external arguments. Among the two possible combinations in the sentences with ‘No External Combination (NoEA)’, only the SR form (item 5) is possible although these sentences do not have any canonical subjects to extract.

		GAP SITE	RC Strategy	Example
1	√	Subject	-An (SR)	4(a)
2	√	non-subject	-DİK (NSR)	5(a)
3	*	Subject	-DİK (SR)	4(b)
4	√	non-subject	-An (SR)	7
5	√	NoEA	-DİK (SR)	6(a)
6	*	NoEA	-An (NSR)	6(b)

Table1: Acceptability of possible strategies by Cagri 2005

4. a. [  $\emptyset$  ; Sandalye-de otur-an ] çocuk ;  
 $\emptyset$  chair-LOC sit-SR child  
 ‘the child who is sitting on the chair’

- b. \* $[\emptyset_i \text{ sandalye-de otur-**duğ**-u}] \text{ çocuk}_i$   
 $\emptyset$  chair-LOC sit-NSR-3sg child
5. a.  $[\text{çocuğ-un } \emptyset_i \text{ otur-**duğ**-u}] \text{ sandalye}_i$   
 child-GEN  $\emptyset$  sit-NSR-3sg chair  
 ‘the chair that the child is sitting on’
- b.  $[\text{çocuğ-un } \emptyset_i \text{ otur-**an**}] \text{ sandalye } \emptyset_i$   
 child-LOC  $\emptyset$  sit-SR chair
6. a.  $[\emptyset_i \text{ bu dükkan-dan al-in-an}] \text{ elbise}_i$   
 $\emptyset$  this shop-ABL buy-PASS-SR dress  
 ‘the dress which is bought from this shop’
- b. \* $[\emptyset_i \text{ bu dükkan-dan al-in-dığ-ı}] \text{ elbise}_i$   
 $\emptyset$  this shop-ABL buy-PASS-NSR-3sg dress
7.  $[\text{Otobüs yanaş-an}] \text{ durak}$   
 bus sidle-SR stop  
 ‘the stop the bus is sidling up to’

<sup>5</sup> A basic question Kornfilt (2000) asks with respect to Turkish RCs is whether the modifying clause is actually a clause, and whether an empty bound variable exists in the position of the gap. Putting it in an ‘Anglo-centric’ manner, she asks and investigates which one of the following English modification types corresponds to the Turkish RCs: (Kornfilt, 2000, p:123)

8. a running child  
 9. a child who is running

Although there are some superficial similarities with (8), Kornfilt claims that Turkish constructions are rather like (9). The Turkish constructions are superficially similar to (8) as the verb is nominalized, it comes before the head in the sentence and there is no relative pronoun and overt complementizer. However, the nominalized verb in Turkish RCs can head a clause-like domain. Also, several arguments and adjuncts can be realized:

Examples (10), (11) and (12) are from Kornfilt (2000, p: 124):

10.  $[\text{her sabah ev-in-den okul-a arkadaş-lar-ı-yla koş-an}]$   
 every morning home-3sg.-ABL school-DAT friend-PL-with run-An (RC suffix)  
 bir çocuk  
 a child  
 ‘A child who runs early every morning from his home to school with his friends’

Also, an agent phrase cannot be used in pre-nominal modification as in (11a). On the contrary, (11b) is perfectly grammatical considering Turkish construction:

11. a. \*a by his mother loved child  
 b.  $[[[\text{pro}^i \text{ anne-si}^i] \text{ tarafından sev- il -en}] \text{ bir çocuk}]$   
 mother-3sg. by love-PASS-An (RC suf.) a child  
 ‘a child loved by his/ her mother’

As Turkish RCs can have a wide range of arguments and adjuncts, the modifying domain of Turkish RCs is more similar to an English CP or TP as in (9) than it is to a participle with one unrealized (external) argument as in (8).

(11b) also shows that a Turkish RC can also have a resumptive pronoun which is the *resumptive pro* licensed by the possessive agreement. Kornfilt also states that a pronoun which is directly or indirectly bound by the modified head is not a property of modification by participles.

An additional support for the similarity between Turkish RCs and example (9) comes from the fact that the nominalized modifier clause can host sentential adverbs, and that the nominalized verb can have modal suffixes: (Kornfilt, 2000)

12. a. [Oya-nın herhalde  $e_i$  sev -e -me -diği] bir insan  $_i$   
 Oya-GEN probably love-ABIL-NEG-DIK-3sg. a person  
 “A person whom Oya probably can not love.”
- b. [ $e_i$  herhalde Oya-yı sev-e-me-yen] bir insan  $_i$   
 probably Oya-ACC love-ABIL-NEG-DIK-3sg. a person

These examples in (12) supports the idea that the nominalized modifier clause of these RCs has completely spelled-out clausal structure and is not formed by a ‘reduced’ deverbal adjectival phrase.

In a nutshell, Turkish RC constructions should be analyzed in a similar manner to the English (9) rather than to (8) (Kornfilt, 2000).

<sup>6</sup> Aygen explains that there are no differences between restrictive and nonrestrictive RCs in Turkish with respect to morphology and surface forms. This seems to fall in line with the idea that Turkish does not make any formal distinctions between the two. The example (13) below is a restrictive RC structure and (14) is what has always been supposed to be a non-restrictive RC:

13. Amerika-dan gel-en şarkıcı Ankara-da konser ver-ecek.  
 America-ABL come-*An* (RC suffix) Ankara-LOC concert give-FUT.3sg.  
 “The singer who has come from America will give a concert in Ankara.”
14. Amerika-dan gel-en Justin Timberlake Ankara-da konser ver-ecek.  
 America-ABL come-*An* (RC suffix) J.T. Ankara-LOC concert give-FUT.3sg.  
 “Justin Timberlake, who has come from America, will give a concert in Ankara.”  
 “Having come from America, Justin Timberlake will give a concert in Ankara.”

It should also be noted that (14) has also a reading in which the subordinate clause has a causal relation to the matrix, as given above as the second reading in quotation marks in (14).

Aygen’s main question, in her study, is whether it is true that Turkish does not make any formal distinctions between restrictive and non-restrictive RCs and whether they are adjuncts. She argues that there are no non-restrictive RCs in Turkish. She claims that the constructions which have similar structures to RCs are actually adjuncts. Her evidence for this claim is from the fact that a causal connection exists between the so called ‘NR RCs’ and the matrix clause. She also supports her claim by stating that dependency on matrix clause is observed in the constructions with causal connections.

<sup>7</sup> The main difference between topicalization and Left Dislocation is that topicalization has a gap in the clause which corresponds to an argument position that the preclausal NP or element can be analyzed as filling, while Left Dislocation has an argument-position pronoun which coreferential with the preclausal NP. Namely, Left Dislocation sentences have no gaps. Another important difference is about long-distance dependencies. Topicalization, as explained first by Ross (1967), shows syntactic constraints upon long-distance dependencies whereas Left Dislocation does not. The example below, from Prince 1997, exemplifies the contrast at issue with respect to the so-called *wh*-island (Prince 1997, cited in Gregory and Michaelis 2001, p: 4):

15. GC: You bought Anttila?  
 EP: No, this is Alice Freed’s copy.  
 GC: *My copy of Anttila* $_i$  I don’t know who has *it*  $_i$ . (Left Dislocation)  
 \*? *My copy of Anttila* $_i$  I don’t know who has [ $e$ ] $_i$ . (Topicalization)

The differences between topicalization and Left Dislocation with respect to the gap and long-dependencies can be observed in the sentences of example (14) above.

In a nutshell, topicalization in English is different from Left Dislocation and it does not lead to any change in the rigid SVO word order in the sentences no matter which constituent is topicalized. The topicalized element is generally followed by a comma in English.

**APPENDIX B**  
**SELF-REPORT FOR BILINGUALS**

**Ad / soyad (naam / achternaam):**

**Doğum tarihi (gebortedatum):**

**Cinsiyet (geslacht): m / v**

**Annenin mesleği (jouw moeder's beroep):**

**Babanın mesleği (jouw vader's beroep):**

1. Türkçe'nizin ne kadar iyi olduğunu düşünüyorsunuz? (Hoe goed denk je dat jouw Turks is?)

	çok kötü				çok iyi
Okuma	1	2	3	4	5
Yazma	1	2	3	4	5
Konuşma	1	2	3	4	5

2. Hollandaca'nızın ne kadar iyi olduğunu düşünüyor sunu? (Hoe goed denk je dat jouw Nederlands is?)

	çok kötü				çok iyi
Okuma	1	2	3	4	5
Yazma	1	2	3	4	5
Konuşma	1	2	3	4	5

3. Ne zaman İngilizce öğrenmeye başladınız? (Wanneer begon je met het leren van Engels?)

..... yıl önce

**APPENDIX C**  
**GRAMMATICALITY JUDGMENT TASK FOR BILINGUALS**

Please read the sentences and  
circle **good** if you think these are possible sentences in English, otherwise circle **bad**.  
Please provide corrections in the given spaces for the randomly selected sentences if you think they  
are bad. You do not need to worry about or correct any punctuation marks.

Examples:

- a. Morgen ik ga naar Den Haag. **good / bad**
- b. Het meisje dat basketball speelde at de hamburger. **good / bad**
- c. Ik ken het meisje dat heeft een boek. **good / bad**

- 1) Usually Ahmet studies four hours everyday. **good / bad**
- 2) Always supports my family me in my difficult times. **good / bad**
- 3) The cat which caught a mouse died. **good / bad**
- 4) Her homework finished the little girl slept. **good / bad**

**Correction (if necessary):** \_\_\_\_\_

- 5) The team which 6 goals in the last match scored became the champions. **good / bad**
- 6) Selin is going to be studying all day tomorrow. **good / bad**
- 7) The man who at the bank works knows you. **good / bad**

**Correction (if necessary):** \_\_\_\_\_

- 8) Every weekend they to a different city travel. **good / bad**
- 9) On Saturday slept my sister very early. **good / bad**

**Correction (if necessary):** \_\_\_\_\_

- 10) Sema is the girl who saw the accident yesterday. **good / bad**
- 11) I the big pizza ate the man know. **good / bad**

12) I went to Amsterdam for my job interview two days ago. **good / bad**

**Correction (if necessary):** \_\_\_\_\_

13) Mehmet knows the girl who everyday here comes. **good / bad**

14) Pinar Trabzon lives in and come here. **good / bad**

**Correction (if necessary):** \_\_\_\_\_

15) What kind of shoes are you looking for? **good / bad**

16) Mehmet felt so ashamed when he couldn't answer the questions. **good / bad**

17) Quietly closed he the door. **good / bad**

**Correction (if necessary):** \_\_\_\_\_

18) The boy who his homework finished watched TV. **good / bad**

19) Often goes she shopping. **good / bad**

20) The man who painted my room ate the pizza. **good / bad**

**Correction (if necessary):** \_\_\_\_\_

21) Last night she her book finished. **good / bad**

22) The child who drinks milk every night sleeps easily. **good / bad**

**Correction (if necessary):** \_\_\_\_\_

23) From Spain comes the girl in the USA lives. **good / bad**

24) She phoned her friend who a new house bought. **good / bad**

25) What I really want is to be an economist in the future. **good / bad**

26) Who fixed your computer when it broke down last time? **good / bad**

**Correction (if necessary):** \_\_\_\_\_

27) Amazingly scored Fenerbahçe 6 goals in the last match. **good / bad**

28) I met the student who won the scholarship. **good / bad**

29) On the phone talks the man in Turkey works. **good / bad**

**Correction (if necessary):** \_\_\_\_\_

30) I forgot the name of the girl who I yesterday at school met. **good / bad**

31) Correctly she all the questions answered. **good / bad**

32) After the movie ate Mehmet a big pizza. **good / bad**

**Correction (if necessary):** \_\_\_\_\_

33) The child who played computer games all day slept early. **good / bad**

34) If you don't have an umbrella in the rain, you were have got wet. **good / bad**

35) Yesterday my sister coffee drank. **good / bad**

**Correction (if necessary):** \_\_\_\_\_

36) Every week Meryem goes to the cinema at least once. **good / bad**

37) Can you tell me where I can find a supermarket on this street? **good / bad**

**Correction (if necessary):** \_\_\_\_\_

38) When we go to Turkey, we always visit our family there. **good / bad**

39) Everyday I the student in Kayseri studies meet. **good / bad**

40) The child who football played cried. **good / bad**

**Correction (if necessary):** \_\_\_\_\_

41) Late arrived my friend in Ankara last night. **good / bad**

42) Successfully he his exams passed. **good / bad**

**Correction (if necessary):** \_\_\_\_\_

43) Two days ago Sema to America went. **good / bad**

44) She knows the girl who answered all the questions correctly. **good / bad**

45) Where Selin did went yesterday? **good / bad**

46) Last Monday his friends played basketball. **good / bad**

**Correction (if necessary):** \_\_\_\_\_

47) Last weekend my father painted my room. **good / bad**

48) Her teacher always tells her that she has to do her homework. **good / bad**

**Correction (if necessary):** \_\_\_\_\_

49) The door closed the student the book read. **good / bad**

50) What were you afraid of when the police came to the school? **good / bad**

51) Meryem bought a new computer which very well works. **good / bad**

**Correction (if necessary):** \_\_\_\_\_

52) When I go shopping, I always buy a pair of shoes. **good / bad**

53) I a mouse found the cat saw. **good / bad**

54) Sometimes Onur his family visits. **good / bad**

**Correction (if necessary):** \_\_\_\_\_

55) Last week played Ahmet football. **good / bad**

56) Every night the baby drinks milk before sleeping. **good / bad**

57) Yesterday we saw Sema at a big party. **good / bad**

**Correction (if necessary):** \_\_\_\_\_

58) What did Ayşe seen when she went shopping tomorrow? **good / bad**

59) Today I am going to make a cake for my mother's birthday. **good / bad**

60) Interestingly she for six hours studied. **good / bad**

61) When fell ill Hasan, was taken he to hospital. **good / bad**

62) To Istanbul went the tourist Topkapı Palace visited. **good / bad**

**Correction (if necessary):** \_\_\_\_\_

63) Quickly she finished her homework.

**good / bad**

64) Her father bought a car which goes 100 km per hour.

**good / bad**

**Correction (if necessary):** \_\_\_\_\_

65) You should have studied more for your exams.

**good / bad**

**Thank you ☺**

**APPENDIX D**  
**GRAMMATICALITY JUDGMENT TASK FOR MONOLINGUALS**

Please read the sentences and  
circle **good** if you think these are possible sentences in English, otherwise circle **bad**.  
Please provide corrections in the given spaces for the randomly selected sentences if you think they  
are bad. You do not need to worry about or correct any punctuation marks.

**Examples:**

- |  |                   |
|--|-------------------|
| a. Tomorrow go I to İzmir.                       | <b>good / bad</b> |
| b. Basketball played the girl the hamburger ate. | <b>good / bad</b> |
| c. I know the girl who bought a book.            | <b>good / bad</b> |
| 1) Usually Ahmet studies four hours everyday.    | <b>good / bad</b> |
| 2) The cat which caught a mouse died.            | <b>good / bad</b> |
| 3) Her homework finished the little girl slept.  | <b>good / bad</b> |

**Correction (if necessary):** \_\_\_\_\_

- |   |                   |
|---|-------------------|
| 4) Selin is going to be studying all day tomorrow.        | <b>good / bad</b> |
| 5) Every weekend they to a different city travel.         | <b>good / bad</b> |
| 6) Sema is the girl who saw the accident yesterday.       | <b>good / bad</b> |
| 7) I the big pizza ate the man know.                      | <b>good / bad</b> |
| 8) I went to Amsterdam for my job interview two days ago. | <b>good / bad</b> |
| 9) Pinar Trabzon lives in and come here.                  | <b>good / bad</b> |

**Correction (if necessary):** \_\_\_\_\_

- |  |                   |
|--|-------------------|
| 10) What kind of shoes are you looking for?    | <b>good / bad</b> |
| 11) The man who painted my room ate the pizza. | <b>good / bad</b> |

**Correction (if necessary):** \_\_\_\_\_

- |  |                   |
|--|-------------------|
| 12) Last night she her book finished.                    | <b>good / bad</b> |
| 13) The child who drinks milk every night sleeps easily. | <b>good / bad</b> |

14) What I really want is to be an economist in the future. **good / bad**

15) Who fixed your computer when it broke down last time? **good / bad**

**Correction (if necessary):** \_\_\_\_\_

16) I met the student who won the scholarship. **good / bad**

17) From Spain comes the girl in the USA lives. **good / bad**

18) Correctly she all the questions answered. **good / bad**

19) On the phone talks the man in Turkey works. **good / bad**

**Correction (if necessary):** \_\_\_\_\_

20) The child who played computer games all day slept early. **good / bad**

21) If you don't have an umbrella in the rain, you were have got wet. **good / bad**

22) Yesterday my sister coffee drank. **good / bad**

**Correction (if necessary):** \_\_\_\_\_

23) Every week Meryem goes to the cinema at least once. **good / bad**

24) Can you tell me where I can find a supermarket on this street? **good / bad**

25) When we go to Turkey, we always visit our family there. **good / bad**

26) Everyday I the student in Kayseri studies meet. **good / bad**

27) Successfully he his exams passed. **good / bad**

**Correction (if necessary):** \_\_\_\_\_

28) Two days ago Sema to America went. **good / bad**

29) She knows the girl who answered all the questions correctly. **good / bad**

30) Where Selin did went yesterday? **good / bad**

31) Last Monday his friends played basketball. **good / bad**

**Correction (if necessary):** \_\_\_\_\_

32) Last weekend my father painted my room. **good / bad**

33) The door closed the student the book read. **good / bad**

34) When I go shopping, I always buy a pair of shoes. **good / bad**

35) I a mouse found the cat saw. **good / bad**

36) Sometimes Onur his family visits. **good / bad**

**Correction (if necessary):** \_\_\_\_\_

37) Every night the baby drinks milk before sleeping. **good / bad**

38) Yesterday we saw Sema at a big party. **good / bad**

**Correction (if necessary):** \_\_\_\_\_

39) What did Ayşe seen when she went shopping tomorrow? **good / bad**

40) Today I am going to make a cake for my mother's birthday. **good / bad**

41) Interestingly she for six hours studied. **good / bad**

42) When fell ill Hasan, was taken he to hospital. **good / bad**

43) To Istanbul went the tourist Topkapı Palace visited. **good / bad**

44) Quickly she finished her homework. **good / bad**

45) Her father bought a car which goes 100 km per hour. **good / bad**

**Correction (if necessary):** \_\_\_\_\_

**Thank you ☺**