

THE NATURE OF ACQUISITION AND PROCESSING
OF ISLAND CONSTRAINTS BY TURKISH LEARNERS OF ENGLISH

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ABSTRACT

THE NATURE OF ACQUISITION AND PROCESSING OF ISLAND CONSTRAINTS BY TURKISH LEARNERS OF ENGLISH

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The primary goal of this thesis was to test the validity of the Full Transfer Full Access (FTFA) Hypothesis on the acquisition of island constraints by Turkish learners of English. The FTFA Hypothesis claims that L2ers have access to UG even at the initial state, which is assumed to be the final state of L1, and there is a gradual restructuring of L2 grammar. The second goal was to investigate whether Turkish learners of English employ the same parsing strategies in bi-clausal wh-questions. If so, the results would support the Continuity Hypothesis arguing that Universal Parser is available in SLA.

Four experiments were conducted in this study. The first two experiments were devised to shed light on the acquisition and processing of island constraints. Two experimental groups (30 intermediate and 30 advanced learners of English) and a control group (30 native speakers of English) were employed for these tests. The third and fourth experiments were administered to display whether there were similarities between the way native speakers of Turkish and English resolve ambiguities and whether island constraints were operative in Turkish. 30 native speakers of Turkish participated in these experiments.

The results showed that different processing strategies for the resolution of ambiguities were employed in English and Turkish and island constraints were not operative in Turkish. Besides, Turkish learners of English had access to UG and there was a developmental pattern for the restructuring of L2 grammar. Furthermore, a gradual approximation to the native speakers' parsing strategies was observed.

Keywords: Second Language Acquisition, Turkish, Island Constraints, Psycholinguistics, Processing.

ÖZ

İNGİLİZCE ÖĞRENEN TÜRKLERİN ADA KISITLAMALARINI EDİNİM VE İŞLEMLEMELERİ

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Bu çalışmanın temel amacı, İngilizce’yi ikinci dil olarak öğrenen Türklerin ada kısıtlamalarını edinimlerinin incelenmesi yoluyla Doğrudan Transfer-Doğrudan Erişim (DTDE) savının sınanmasıdır. DTDE’ye göre, ikinci dil öğrenenlerin ED’ye erişimi her aşamada mümkündür ve kademeleri olarak dilbilgisi yeniden yapılandırılır. Çalışmanın diğer amacı, ikinci dil edinenlerin iki cümleli soruları işleme modellerinin tespit edilip anadil konuşucularıyla benzerlik taşıyıp taşımadığının saptanmasıdır.

Bu çalışmada dört deney uygulanmıştır. İlk iki deney İngilizceyi ikinci dil olarak öğrenenlerin ada kısıtlamalarını edinimleri ve işlemlerinin araştırılması amaçlar. Bu uygulamalarda 2 deney grubu (30 orta seviye İngilizce konuşucusu-30 ileri seviye İngilizce konuşucusu) ve 1 kontrol grubu (30 anadil konuşucusu) yer almıştır. Üçüncü ve dördüncü deney İngilizce ve Türkçede anlam belirsizliklerinin çözümleme stratejilerinin ve ada kısıtlamalarının geçerli olup olmadığının sınanmasını amaçlar. Bu çalışmaların her birinde 30 Türkçe anadil konuşucusu yer almıştır.

Çalışmanın sonunda, Türkçe ve İngilizcede farklı işleme stratejilerinin uygulandığı ve Türkçede ada kısıtlamalarının geçerli olmadığı görülmüştür. Ayrıca, ikinci dil edinenlerin ED'ye erişiminin mümkün olduğu ve ikinci dilin yapısının gelişimsel bir modele tabi olduğu saptanmıştır. İkinci dilde işleme stratejilerinin anadil konuşucularının uyguladığı stratejilerle kademeli olarak benzeştiği de gözlemlenmiştir.

Anahtar Kelimeler: İkinci Dil Edinimi, Türkçe, Ada Kısıtlamaları, Ruhdilbilim, İşleme.

To my family

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LIST OF SYMBOLS AND ABBREVIATIONS

AAE: African American English
CED: Conditions on Extraction Domain
CP: Complementizer Phrase
DP: Determiner Phrase
ECP: Empty Category Principle
EPP: Extended Projection Principle
FDH: Fundamental Difference Hypothesis
FLA: First Language Acquisition
FTFA: Full Transfer Full Access
IP: Inflectional Phrase
LD: Long Distance
LF: Logical Form
MAE: Mainstream American English
SD: Short Distance
SLA: Second Language Acquisition
TP: Tense Phrase
UG: Universal Grammar

CHAPTER 1

INTRODUCTION

1.1. Second Language Acquisition Models

Second language acquisition (SLA) encompasses such a vast research area that it is rather hard to come up with a comprehensive paradigm that is able to account for all the complex phenomena involved and proves to be entirely consistent. Nevertheless, it is possible to argue that theories of second language acquisition were presented under two broad umbrellas of models: the connectionist model and the nativist model. A wealth of SLA studies have been conducted and interpreted in conformity with the basic tenets of these competing models for a few decades.

The connectionist models propose that the human mind is predisposed to look for associations between elements and create neural links between them (Mitchell & Myles, 1998, p.127). The incremental connection between these elements leads to stronger links and the product of such connections form larger networks. As Mitchell and Myles (1998) argue, the implication of this to language acquisition is that these models regard language as a set of probabilistic patterns which are strengthened in the learners' brain as a result of constant triggers. The proponents of the connectionist models believe that language learning is not so different from learning anything else. The cognitive content of language systems is special because the problem of representing and sharing meanings across a serial speech stream is unique to language, but the processes of learning are the same as those involved in the rest of human cognition (Ellis, 2007, p.77). In a similar way, second language acquisition is claimed to be realized by the general problem-solving capacity of the human mind and frequency is considered to be an important determiner during the course of language acquisition. Additionally, the connectionists articulate their opposition to the nativist accounts by claiming that

they are in disagreement with the presupposition that if grammar is not learnt, it must be concluded that it is innate (Bohannon & Bonvillian, 2005).

The connectionist models compete with the nativist accounts which aim at establishing the boundary conditions on what counts as a possible human language (Crain & Thornton, 1998). The nativist accounts claim that language acquisition is an ability possessed by all humans just because they are born as human beings.

The implication is that we don't learn to have a native language, any more than we learn to have arms or legs; the ability to acquire a native language is part of our genetic endowment- just like the ability to learn to walk (Radford, 2009, p. 18).

This ability is assumed to be activated by the Language Faculty, which is unique to human race and completely innate according to the nativists. The nativist models provide evidence for their innateness argument through the uniformity and rapidity of language acquisition and the lack of negative feedback, among others. The Language Faculty incorporates the invariant rules of every natural language called Universal Principles and language-specific variations, namely Parameters (Chomsky, 1980). Therefore, it is possible to infer that learning a language calls for only the setting of parameters.

Hawkins (2001) maintains that if the mechanisms which instantiate the acquisition of the first language are innate, it is reasonable to investigate second language acquisition on the assumption that the same innate mechanisms are available in second language grammar-building, as well. Importantly, the availability of such innate mechanisms in the developing language system, called interlanguage, cannot be necessarily tested through the comparison of the competence of native speakers with second language learners. As White (2003) claims:

It is not necessary for L2 learners to acquire the same knowledge as native speakers in order to demonstrate a poverty-of-stimulus situation in L2 acquisition, it is sufficient to show that L2 learners acquire complex and subtle properties of language that could not have been induced from the L2 input. (p. 22)

Meisel (2011) also defended the idea that the crucial question is whether the tacit knowledge guiding second language acquisition is in fundamental ways different from that available to first language learners, and whether the mechanisms of language use differ in significant ways. That is to say, what is important is to find out if the interlanguage is constrained by the principles of Universal Grammar. If it is, the utterances of second language learners (L2ers) are expected to end up within the boundaries of Universal Grammar (UG). White (2003) points out that two conditions should be met in order to be able to test whether interlanguage grammars are constrained by the principles of UG:

- i. The phenomenon being investigated must be underdetermined by the L2 input. That is, it must not be something that could be acquired by observation of the L2 input, including statistical inferencing based on frequency of occurrence, on the basis of analogy, or on the basis of instruction.
- ii. The phenomenon should work differently in the L1 and the L2. That is, it must be underdetermined by the L1 grammar as well. In this way, transfer of surface properties can be ruled out as an explanation of any knowledge that L2 learners attain. (p.23)

The main goal of this thesis is to investigate the availability of the principles of UG in the interlanguage grammars. In particular, I will be interested in whether a particular hypothesis about UG accessibility in SLA called the Full Transfer Full Access (FTFA) Hypothesis makes correct predictions about the sensitivity of Turkish learners of English to the island constraints on wh-movement. Before the details of the present study are described, an introduction to the UG-based hypotheses will be provided in the next section.¹

¹ Even though UG-based theories are also classified according to their views on the transfer of the first language, the debate about the nature of L1 transfer, which can be tested most appropriately in the initial states of L2 acquisition, does not need mentioning in this part because the initial states in L2 are not within the limits of this study.

1.2. UG-Based Hypotheses

1.2.1. No Access Hypothesis

Clahsen and Muysken (1986) conducted research on the comparison of learning German as the first language and as a second language. Their conclusion was that while children had access to ‘some’ properties which helped them construct abstract hypotheses about linguistic structures, adults were remarkably disadvantaged because they did not have access to those properties. Instead, adult L2 learners were alleged to make use of general learning mechanisms, which turned out to be insufficient. This finding led them to emphasize the impossibility of access to Universal Grammar in second language acquisition. This hypothesis was welcomed by such researchers as Freeman & Long (1987) and Bley-Vroman (1989). Bley-Vroman (1989), who coined the term “Fundamental Difference Hypothesis” for this phenomenon, maintained that the differences between the linguistic behaviors of those who learn a language as a first language and as a second language were caused by the non-availability of domain-specific language acquisition mechanisms and Universal Grammar for adult second language learning, in contrast to child language acquisition (Belikova, White, 2009, p. 199). Correspondingly, the linguistic developments of these two groups advance within the frames of two “fundamentally different” procedures.

Those who adopt the Fundamental Difference Hypothesis consider the age of the onset of language acquisition as a determining factor in achieving competence. They maintain that after a certain period of time, it becomes more and more difficult to learn a language with a native-like competence because the access to the properties mentioned above becomes more and more difficult.

1.2.2. Partial Access Hypothesis

Beck (1998) proposed that interlanguage grammars are permanently impaired as a result of some deviations from the native speaker grammars. Properties of Universal Grammar not instantiated in the L1 grammar are claimed

to be unavailable during the course of second language acquisition (Epstein, Flynn, and Martohardjono, 1996). Therefore, based on this hypothesis, it is possible to suppose that parameter resetting never occurs and that learners have to count on the parameters of their mother tongue. In parallel with the No Access Hypothesis, the learners are expected to benefit from the domain-general learning mechanisms to reach the desirable linguistic level.

As for the content and quality of the properties of Universal Grammar instantiated in L2 grammar, two hypotheses are presented:

a.) Minimal Trees Hypothesis: This hypothesis is formulated on the basis of the specific case of the acquisition of German as a second language by speakers of various L1s, but it is intended to be a general theory of L2 linguistic development (Hawkins, 2001, p. 68). The proponents of the Minimal Trees Hypothesis claim that while learning a second language, a learner can make use of the lexical projections available in his native language, so he only needs to have access to functional projections to reset the parameters. According to Vainikka and Young-Scholten (1998), the learner can transfer the Verb Phrase of his or her native language but no functional projections such as TP or CP are transferred either in the initial or developmental stages of the second language acquisition process. As the quality and quantity of L2 input increase, the functional categories available in the target language emerge incrementally and are added to the L2 mental grammar.

As for the final state of second language acquisition, the proponents of the Minimal Trees Hypothesis argue that there is bound to be a convergence between the L1 competence and L2 competence as a result of the existence of L2 data which actuate the properties of the target grammar.

This hypothesis is criticized by some L2 researchers for its insistence on the absence of L1 transfer in the course of the acquisition of functional properties of the second language.

b.) Valueless Feature Hypothesis: This hypothesis was propounded by Eubank (1994, 1996), who argued that even though both lexical and functional properties of the first language are instantiated in the target language, the feature

strength of functional projections is not available. As White (2003) explains, features of functional projections transferred from the mother tongue are valueless or inert in the initial state of second language acquisition instead of being strong or weak. The Valueless Feature Hypothesis is similar to the Minimal Trees Hypothesis in terms of the final state: it is argued that L2 learners' grammar will be native-like in quality as a result of the L2 input gradually accumulated.

This hypothesis is also criticized for disregarding the possible effect of the first language on L2 functional properties. Besides, Hawkins (2001) claims that:

On the basis of the evidence we have accumulated so far, it appears that Vainikka and Young-Scholten's proposal (Minimal Trees Hypothesis) deals more elegantly with the observations than the 'valueless feature' theory (but bearing in mind the residue of L1 influence on the development of IP which remains unexplained) (p. 75).

1.2.3. Full Transfer Full Access Hypothesis

This model argues that the initial state of the second language is the final state of the first language acquisition process (Schwartz & Sprouse, 1994). Therefore, the principles and parameters available in the first language are straightforwardly transferred to the second language. In this regard, the transferred parameters that are not instantiated in the second language challenge the L2 learners towards restructuring them. Within this process, Universal Grammar is fully accessible; the learners resort to the apparatus of UG when they have to reset the relevant parameters along with the input and learning mechanisms. It is pointed out that, like First Language Acquisition (FLA), all the hypotheses that learners create at every stage of the interlanguage are constrained by Universal Grammar; that is to say, the errors of the second language learners fall within the limits of the properties postulated by Universal Grammar. Additionally, it is maintained that second language learners create more native-like hypotheses at later stages of the interlanguage continuum as a result of the increase in the input they are exposed to. Likewise, Schwartz and Sprouse (1996) acknowledge that there is no mounting evidence that the cognitive processes underlying FLA and SLA differ; the

processes directing the development in L2 are claimed to be realized by the same mechanisms that constrain L1 acquisition.

As for the differences between L1 and L2 acquisition from the perspective of Full Access Hypothesis, as well as the starting point, the final state of the second language acquisition process is assumed to be different from that of first language acquisition (White, 2003). According to Hawkins (2001), this difference is caused by the ‘radically’ different initial state; in the case of L1 learners the starting point is ‘the open parameter values allowed by Universal Grammar whereas the starting point is the L1 syntax in the case of L2 learners’ (p. 72). In connection with this, reaching native-like competence is regarded as an ambitious duty for second language learners; however, the learners are thought to become more and more proficient as the input increases. As mentioned above, all the stages of the interlanguage are supposed to be within the limits allowed by UG, and it is claimed that there occurs a gradual convergence between the interlanguage grammar and the structural properties of the target language.

In this study, it is firstly aimed to evaluate the claims of the Full Transfer Full Access Hypothesis by testing L2 learners’ sensitivity to a certain type of island constraints, namely wh-islands, not instantiated in their native language. The constraints in question are illustrated in (1) and (2) below. If the knowledge of Subjacency Conditions (Chomsky, 1973) in the interlanguage of Turkish learners of English, whose native language does not require the relevant condition, is investigated, such a study is certain to meet the two aforementioned requirements to provide evidence for the access to UG in second language acquisition. Recall that White (2003) says that the underdetermination of input and L1 grammar (availability of different parameters) are two necessary conditions to test whether L2 learners have access to UG. Provided that Turkish learners of English are able to make the proper distinction between the two questions below as regards their dissimilar interpretation, it is legible to argue that UG is available in the interlanguage grammar of learners:

1. When did the boy say (that) he hurt himself?
2. When did the boy say how he hurt himself? (De Villiers et al., 1990).

The fact that (1) is ambiguous but (2) is not is a result of the syntactic restrictions on overt wh-movement, which may proceed out of an embedded clause but not if the clause is an island for movement (Ross, 1967). Since the embedded clause in (2) is a wh-island, the movement of another wh-phrase out of it is prohibited, and only the matrix construal of the fronted wh-phrase is possible.

If UG is available, then we should find no significant difference between the judgments of (1) and (2) by Turkish learners of English and English native speakers. In addition, if FTFA is correct, then a developmental pattern in the acquisition of island constraints must also be determined. Learners with lower L2 proficiency should perform worse than learners with higher proficiency on the interpretation of the type of questions exemplified in (1) and (2) since the parameters of Turkish available at the initial stages of L2 acquisition are modified in the light of L2 input. The expectations based on the FTFA Hypothesis will be tested through both offline and online methods, so the thesis also represents a source of information about L2 parsing strategies.

In the following section, structural background information will be provided in order to explain the source of the difference between the interpretation of these questions. Before that, disparate syntactic operations to form questions in English and Turkish will be explained so that the rationale behind White's two criteria can be offered.

1.3. Background To The Structure Under Investigation

1.3.1. Wh-Questions In English

In English, wh-questions are formed via the overt movement of the wh-phrase from its base-position to the specifier of the Complementizer Phrase [spec CP], which leaves a copy behind.

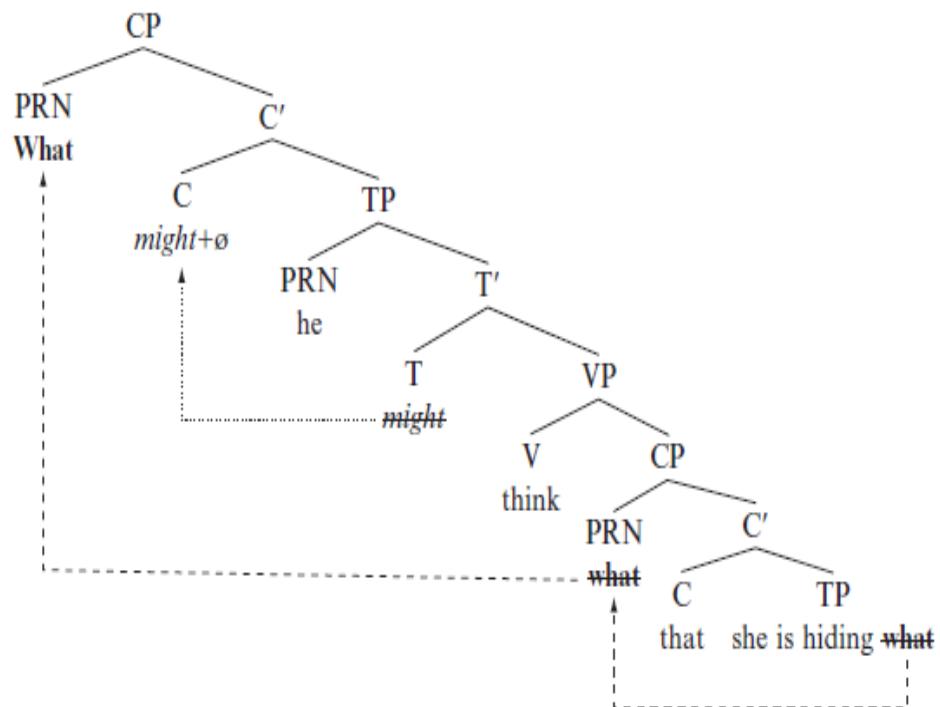
- 3.a. She was reading a book. (A declarative sentence)
- b. She was reading what? (An echo question)
- c. What_i was she reading _{*t*}_i? (An interrogative sentence)

It is assumed that this movement is motivated by the uninterpretable wh-feature of C° in English, which leads the wh-phrase to be fronted as a result of valuing (Adger, 2003). Haegeman (1991) adds that the most suitable landing site for the wh-phrase is the non-filled spec CP.

Apart from the short-distance movement exemplified above, the wh-phrase can also originate in a lower clause and move to the spec CP of a higher clause, the former one being the embedded clause and the latter one the matrix clause, in a successive-cyclic fashion (Radford, 2009, p. 210).

4.a. What_i might she think she is hiding _{*t_i*}?

b.



Such a successive-cyclic long-distance movement is not free but is subject to the Subjacency Condition (Chomsky, 1973), which precludes the possibility of moving over a phrase over two bounding nodes (DP and TP in modern syntax). Ross (1967) dubbed such configurations “islands” (the image being that of syntactic elements marooned on certain portions of the sentence) (Boeckx, 2008, p. 151). Here, I give brief theoretical information about the constraints on wh-movement and changes in the theoretical accounts.

1.3.1.1. Island Constraints

As stated above, a principle of Universal Grammar called Subjacency necessitates that phrases that are extracted from the embedded clause move to the matrix clause in a successive-cyclic fashion; namely, in short steps. Prior to Chomsky's formulation of the Subjacency Principle (1973), Ross (1967) followed Chomsky's earlier formula called A-over-A Condition (1964), which prohibits the extraction of wh-phrases from the embedded clauses the spec-CP of which is already filled by another wh-phrase:

5. *Who did you wonder whether this girl danced with? (Belikova & White, 2009, p. 202).

In his Ph.D. dissertation, Ross identified some of the structures that make long-distance movement illicit. He called these structures "islands" since they eliminate the possibility of the existence of a landing site for the wh-phrases and noun phrases belonging to the embedded clauses in complex structures. Some examples of ungrammatical interrogative sentences which violate island constraints are provided below. Some of the sentences that illustrate the constraints are taken from Çele & Gürel (2011):

6. The Complex NP Island Constraint:

a. *What_i does James believe [the fact that Alison saw *t_i* at work]?

The Adjunct Island Constraint:

b. *Who_i did Alison go to work [after she took *t_i* to school]?

The Subject Island Constraint:

c. *Who_i does the teacher believe [a story by *t_i*] amuses the children?

The Relative Clause Island Constraint:

d. *What_i does Jane visit [the architect who designed *t_i* for her friend]?

The Wh- Island Constraint:

e. *Who_i did you wonder [whether this girl danced with *t_i*]?

The Coordinate Structure Constraint:

f. Which student_i did you say [you met Mary and *t_i*]?

The Left-Branch Constraint:

- g. How_i did he say [that he was *t_i* tall]?

The list of island constraints was expanded by the addition of The Factive Island Constraints by Kiparsky and Kiparsky (1970) and The Negative Island Constraints by Ross (1984).

1.3.1.2. The Subjacency Principle

In 1973, a unified account of the violations of extraction was provided by Chomsky, which he called the Subjacency Principle. He proposed that a natural explanation of movement in short steps was the constraint that a wh-phrase could not move over two bounding nodes. These nodes were IP (or TP in current linguistic theory) and NP (or DP). He attempted to account for all the ungrammatical structures exemplified above by means of this principle. For instance, while question (7.a.) is grammatical due to the fact that the wh-phrase moves over only one bounding node (TP), the wh-phrase in (7.b.) moves over two bounding nodes (TP and DP), hence, the sentence turns out to be ungrammatical on account of the Subjacency Principle.

7.a. What_i did you say that [**TP** the man talked about *t_i*]?

b. *What_i did you hear [**DP** the rumor that [**TP** the man talked about *t_i*]]?

1.3.1.3. Subsequent Hypotheses:

The Subjacency Principle failed to satisfy the major requirement of being a descriptive linguistic theory: it could not account for all and only grammatical structures. It was insufficient in that;

- Crosslinguistic inconsistencies were observed; languages that allow overt wh-movement were observed not to be strictly subject to the Subjacency Principle.

- The rule could not account for grammatical sentences that allow the wh-phrase of the matrix clause to move over two bounding nodes. To illustrate, it was not explanatorily adequate enough to explain the difference between the following questions in terms of grammaticality:

8.a. What_i do you know how to do *t_i*?

b. *How_i do you know what to do *t_i*?

As a result of the deficiencies of the Subjacency Principle, alternative reformulations were proposed:

a.) **Conditions on Extraction Domains (CED):** Huang (1982) provided evidence through the milder degradation of questions featuring the extraction of a direct object, such as “Who_i did the girl ask how to help *t_i*?” in contrast to the completely ungrammatical question “When_i did the girl know how to help *t_i*?” for his argument that complements and non-complements are naturally different constituents as regards movement out of an island. While complements are properly governed by the lexical head and are therefore allowed to be extracted from an island, non-complements are not.

b.) **Barriers:** Taking into account the gradable (un)grammaticality of the long-distance questions and the Empty Category Principle (ECP) (to be explained below), Chomsky (1986) attempted to revise the Subjacency Principle. He preferred to use the term “barriers” instead of the bounding nodes and considered the barriers relative in comparison with the absoluteness of the Subjacency Principle. Phrases that are not theta-governed or that are the first maximal projections to dominate a blocking category were classified as barriers (Chomsky, 1986, Belikova & White, 2009). According to this hypothesis, the degree of (un)grammaticality of the wh-questions extracted from the embedded clauses is dependent on the number of barriers they overjump as well as on the violation of the ECP, which was defined by Rizzi (1990) as below:

A nonpronominal empty category must be:

- (i) properly head-governed (Formal Licensing)
- (ii) antecedent-governed or theta-governed (Identification) (p. 32)

Therefore, based on the Barriers Hypothesis, there are strong and weak islands; the former ones consisting of subjects and adjuncts and the latter ones of wh-islands and N-complements.

c.) **Minimalist Accounts:** In parallel with the basic requirements of the Minimalist Program (Chomsky, 1993, 1995) that all the syntactic operations rely on very basic (minimal) theoretical ground, the Barriers Hypothesis became subject to some challenges. The theoretical constraint on extraction underwent revision once again ‘to unify subject and adjunct extractions by a pre-linearization requirement for derived positions (i.e., specifiers and adjuncts)’ (Çele & Gürel, 2011, p. 211).

Despite the deficiencies of the earlier approaches to account for all and only possible long-distance movement, the primary claim examined in this study is explained in all of them. The medial wh-phrase in the 9.a. forms an island and prohibits the movement of *when* from the embedded clause to the main clause, which results in an unambiguous question. In other words, long-distance interpretation (considering the question addressing the time of being punished) is impossible. On the other hand, example (10.b.) does not include any island and allows both the short-distance and long-distance interpretations of the question.

9.a. When_i did the boy say *t_i*[how he was punished]?

b.*When_i did the boy say [how he was punished *t_i*]?

10.a. When_i did the boy say *t_i* [that he was punished]?

b. When_i did the boy say [that he was punished *t_i*]?

1.3.2. Wh-Questions In Turkish

It is commonly agreed that Turkish, a head-final language the canonical word order of which is Subject-Object-Verb (SOV), is a wh-in-situ language. As İşsever (2009) stated, Turkish is a genuine wh-in-situ language where no movement is required for any wh-phrase, in neither matrix nor embedded clauses, neither in single nor in multiple questions. Looking at the examples below, we see

that wh-phrases remain in their base-generated position in matrix and embedded questions.

11.a. Mehmet bir kalem buldu.

Mehmet a pencil found

‘Mehmet found a pencil.’

b. Mehmet ne buldu?

Mehmet what found

‘What did Mehmet find?’

12.a. Mehmet kopya çektiğini utanarak söyledi.

Mehmet copy draw-NOM-3POSS-ACC² shamefully said

‘Mehmet shamefully said that he cheated.’

b. Mehmet kopya çektiğini nasıl söyledi?

Mehmet copy draw-NOM-3POSS-ACC how said

‘How did Mehmet say that he cheated?’

1.3.2.1. LF Movement & Qu-Operator Hypothesis

That Turkish does not require the movement of wh-phrases to the most initial position in a sentence, which is a must in English, as shown above, is caused by the lack of uninterpretable wh-feature on C[°] and the lack of the relevant matching of the uninterpretable features (Huang, 1982). On the other hand, Turkish has the property of scrambling; that is to say, phrases (including wh-phrases) can move to different positions in a sentence including sentence initial slots.

13. Ahmet kalemi aldı.

Ahmet pencil-ACC bought

² NOM: Nominative POSS: Possessive ACC: Accusative

‘Ahmet bought the pencil.’

14.a. Ahmet neyi aldı?

Ahmet what-ACC bought

‘What did Ahmet buy?’

b. Neyi Ahmet aldı?

What-ACC Ahmet bought

‘What did Ahmet buy?’

Diametrically opposed claims were presented on the features of scrambling. While Saito (1985) emphasized that scrambling is a semantically “vacuous” phenomenon, Özsoy (2009) disagreed with this idea arguing that wh-scrambling is a rule that satisfies discourse functions. There also exist debates on the syntactic properties of this operation. Ross (1967) argued that scrambling is a stylistic rule, unlike overt wh-movement in English. However, Miyagawa (2001) held that scrambling is an obligatory operation driven by Extended Projection Principle (EPP). Apart from these conflicting proposals, Özsoy (2009) is of the opinion that certain types of structures involving wh-scrambling in Turkish are actually instances of overt wh-movement as they were structurally quite similar to their English counterparts.

As for the formation of wh-questions in wh-in-situ languages like Turkish, two prominent theories are in competition with one another: LF movement (Huang, 1982) and Qu-Operator Hypothesis (Aoun & Li, 1993). Huang (1982) suggested that even though wh-movement is invisible at the surface level in wh-in-situ languages, such phrases move to the sentence initial position in the Logical Form (LF) of sentences.

Aoun and Li (1993) presented an alternative approach to the features of wh-in-situ languages by stating that wh-phrases in languages like Japanese and

Chinese do not move at LF level. Instead, they have uninterpretable wh-features just as languages like English do and they are checked by a coindexation with the Question-Operator (Qu-Operator) in overt syntax (Çakır, 2011, p. 13). Both proposals have their proponents and they are still hotly debated in the literature.

1.3.2.2. Islands in Turkish

Huang (1982), who argued that wh-in-situ languages like Turkish are subject to LF-movement, stated that this parametric difference is reflected in the island constraints as well. Based on the examples from Chinese, he argues that wh-in-situ languages are free from island constraints. Although Nishigauchi (1986), who also analyzed this principle in the structure of Chinese, was in agreement with him, researchers interested in other languages like Korean, identified ungrammatical structures that they argued were a result of the violation of island constraints.

As for Turkish, opposing hypotheses were put forward. Uzun (2000) and Kornfilt (2003) supported the claims by Huang, agreeing that Turkish is immune to island effects. However, according to Özsoy (2003), Turkish is in fact subject to island constraints. She proposed that Turkish creates an impression that island constraints are not operative in the language because what covertly moves to Spec CP of the matrix clause in these constructions is indeed not the wh-phrase but the whole maximal projection that the wh-phrase is a constituent of. The wh-phrase moves only within ‘the scope of its containing clause, not violating the subjacency condition’ (p.13).

Furthermore, she distinguished between the extraction of arguments and adjuncts based on the Categorical Identity Principle by Nishigauchi (1990) by stating that while argument wh-words can be extracted from their projection, this is not possible for adjunct wh-words as exemplified below:

15. [[Kim-in yaz-dıĝ-ı] mektub]-u oku-du-n?
 Who-Gen write-Nom-3Poss letter-Acc read-Past-2sg

*'Who did you read [the letter [t wrote]]?'

16. *[[Adam-ın neden yaz-dığ-ı] mektup uzun?

Man-Gen why write-Nom-3Poss letter long

*'Why is [the letter [the man wrote t] long?'

Arslan (1999) extended Özsoy's (1996) Argument-Adjunct Asymmetry Hypothesis to a more elaborate proposal by emphasizing the divergence in the behavior between the VP-internal adjuncts (*nereye* (where), *ne zaman* (when), *nasıl* (how)) and VP-external adjuncts (*niçin-neden-niye* (why)). The underlying analysis behind her proposal was Pesetsky's (1987) D-linking Hypothesis. Therefore, her hypothesis was able to account for the ungrammaticality of the first example below and the grammaticality of the second one:

17. *[[Adam-ın neden yaz-dığ-ı] mektup uzun?

Man-Gen why write-Nom-3Poss letter long

*'Why is [the letter [the man wrote t] long?'

18. [[Adam-ın nerede yaz-dığ-ı] mektup uzun?

Man-Gen where write-Nom-3Poss letter long

'Where is [the letter [the man wrote t] long?'

Çakır (2011) summarized the features of wh-phrases which cross the boundary of islands in Turkish after a detailed review of the literature:

1. Wh-arguments (e.g. *kimi*, 'who', *ne-yi*, 'what') can be interpreted outside of the island structures.
2. There are two dialects for the interpretation of VP internal wh-adjuncts (e.g. *nereye* 'where', *ne zaman* 'when', *nasıl* 'how') outside of the island constraints: one views them as grammatical, whereas the other views them as ungrammatical.
3. VP-external, reason denoting wh-adjuncts (e.g. *niye*, *niçin*, *neden* 'why') cannot be interpreted outside of the island structures. (p.22)

It is appropriate to argue that there is a parametric difference between English and Turkish as regards the island constraints, too. Wh-movement is

obligatory for question formation, and certain types of bi-clausal questions strictly obey the Subjacency Principle in English. By contrast, there is no necessity for wh-phrases to move to a sentence initial position in Turkish, and when they somehow move it is caused by a fundamentally different phenomenon called scrambling. Such an operation is thought to be subject to island constraints only under certain conditions as explained above. As a consequence, it can be induced that the first requirement for indicating UG access in L2 acquisition is satisfied in this study: parameters are different between the structure of the mother tongue (Turkish) and the target language (English) to be investigated.

Going back to White's (2003) second requirement for the demonstration of UG-access in interlanguage grammars, we observe that not only L1 learners, but L2 learners as well are short of negative evidence. De Villiers et al. (1990), investigating children's acquisition of bi-clausal wh-questions and interpretations of such questions, asserted that even if children hear and utter long-distance extraction of argument wh-words, they never utter questions with adjunct wh-words which cause ambiguities. White (2007) confirmed that there is a learnability problem with regard to the acquisition of long-distance rules by L1 learners by acknowledging that

It is most unlikely that children are explicitly told that certain sentences are ambiguous, while others (which are superficially very similar) are not. Nor does this kind of information seem to be inducible from the language that children hear, given that children will be exposed to a range of grammatical wh-questions, involving simple and embedded questions. In other words, the input underdetermines the child's linguistic competence. (p.38)

Similarly, linguistic input provided for L2 learners is claimed to underdetermine their knowledge of the constraints on long-distance extraction.

Consider wh-movement once again. The fact that [(1a)] is ambiguous whereas [(1b)] is not [...] constitutes an L2 learnability problem, parallel to the problem faced by L1 acquirers. There is no reason to support that the L2 English input is any more informative about wh-questions than the L1 English input, unless L2ers receive specific instruction on this property, which seems highly unlikely. (White, 2007, p. 40)

As a result, it is evident that the acquisition of the relevant linguistic structure by Turkish L2 learners of English meet both conditions for testing the availability of UG in SLA.

As it is referred to in 1.2.3., the Full Transfer Full Access Hypothesis, the validity of which I aim to test in this thesis, assumes that second language learners create more native-like hypotheses at later stages of interlanguage continuum as their proficiency increases. That is why a developmental pattern in the acquisition of long-distance rules is also expected. Namely, not only convergence between the judgments of L1 acquirers and L2 learners but also a significant difference in terms of accuracy among L2 learners depending on their proficiency, the most important factor of which is alleged to be input, is anticipated.

1.4. Second Language Processing

Fodor's seminal articles *Learning to Parse* (1998) and *Parsing to Learn* (1999) put forward the considerably disputable Acquisition Paradox Hypothesis. It argues that acquisition and processing are two interrelated phenomena. Correspondingly, deficiency in either of them may be effective in the process of the other. As Felser et al. (2003) put forward, a language learner's ability to process an input string is a crucial prerequisite for grammar building; 'successful parsing, in turn, presupposes sufficient grammatical knowledge to enable the parser to segment an input string into grammatically meaningful chunks, to assign appropriate category labels to each segment, and to determine hierarchical relationships and intra-sentential dependencies among constituents' (p. 2). Thus, differences between the linguistic competence of L1 acquirers and L2 learners can be ascribed to the divergence between L1 and L2 processing. It is, therefore, also worth investigating whether L2 learners transfer processing strategies available in their mother tongue, which may lead to comparative fallacy in L2 acquisition.

Reviewing the literature, we see that there are two prominent theories concerning the quality of second language processing. The Continuity Hypothesis (Crain & Thornton, 1998, Crain & Wexler, 1999) claims that the language faculty

comprises not only Universal Grammar but Universal Parser as well and that it is available in SLA. If the continuity approach is correct, then we do not expect to find any qualitative differences in the parsing performance of language learners and adult native speakers, at least not with respect to their use of universal processing strategies (Roberts, 2007). On the other hand, the Shallow Structure Hypothesis (Clahsen & Felser, 2006) claims that L2 learners are not able to construct detailed syntactic representations; instead, they only rely on lexical and semantic information. Clahsen and Felser (2006) argue that no matter how proficient L2 learners are or how similar their first language is to the second language, they can neither form subtle representations by making use of the syntactic structures nor are they sensitive to syntactic cues in ambiguity resolution (in Omaki & Schulz, 2011, p. 3). Henceforth, by administering a psycholinguistic test to compare the reaction times to the ambiguous and unambiguous questions by L1 speakers and L2 learners, it is possible to determine which hypothesis better characterizes the linguistic behaviors of learners and establishes a more rational framework on the nature of second language sentence processing.

1.4.1. Psycholinguistic Techniques in SLA

In order to eliminate the problem of generalizing from the results of monolingual speakers of English to universal mechanisms (Bates et al., 1989), second language studies along with the cross-linguistic research are needed for characterizing the alleged psycholinguistic universals such as the Universal Parser. Traditional methods for second language research such as offline techniques (grammaticality judgment tasks and the like) are considered not to be efficient enough at unmasking the proper data for the identification of mental processes, so it is essential that complementary psycholinguistic techniques, notably online questionnaires, be utilized.

Juffs (2001) criticized second language researchers for disregarding psycholinguistic techniques to gain insight into mental processes and abilities in a second language. However, a small number of studies in SLA have employed

online methods as a complementary component of research for two decades. Moreover, the gradual increase in the number of such studies, especially those investigating ambiguity resolution in L2 in the last years is quite encouraging. According to Marinis (2003), only through the addition of online techniques such as the reaction-time method can decisive findings be provided to unearth the nature of second language acquisition and processing. Thus, since one of the goals of this thesis is to characterize and compare the mental processing of ambiguous and unambiguous wh-questions by L1 and L2 speakers, making use of psycholinguistic techniques; i.e. both offline and online methods, is a necessity.

1.4.2. Focus of the Psycholinguistic Experiment

As Papadopoulou (2005) suggests, the human sentence processor (parser) does not wait for a whole string of words to assign a structure to that string in one analysis. Rather, it instantly builds structures and, if necessary, it makes revisions mostly based on the syntactic requirements. Correspondingly, when the parser is confronted with a wh-element, it attempts to integrate this element into the target sentence as quickly as possible (Frazier & Clifton, 1989). That is why in offline tests, L1 speakers are expected to construe the wh-phrase with the landing site in the matrix clause more often than with the landing site in the embedded clause. However, they are certain to disallow long-distance movement in unambiguous questions involving an embedded island. If L2 learners make use of the same mechanisms as native speakers do, the expected outcome is that their judgments are in alignment with those of the native speakers.

As for online studies, it is known that ungrammatical and ambiguous structures are hard to be processed by the human parser. Consequently, differences between the reaction times to ambiguous and unambiguous structures are observed along with the differential reading span of grammatical and ungrammatical phrases. Juffs (2001) acknowledges that ‘faster or slower reading times at crucial points in a sentence or in reaction to words presented in isolation, can provide an insight into difficulties in second language sentence processing and functioning of language processes in the mind in general.’ (p. 207). Additionally, previous studies have indicated that the moment ambiguity in the sentence is resolved, the reading

span of the rest of the sentence or phrase becomes shorter. For this reason, through the use of an online comprehension study by which reaction time measures can be evaluated as an indicator of processing difficulty and knowledge representation, it is anticipated that native speakers have more difficulty processing ambiguous questions such as ‘When did the boy say that he was punished?’ than unambiguous questions like ‘When did the boy say how he was punished?’ because the relevant ambiguity no longer remains following the appearance of the medial wh-phrase in the latter question. As a consequence of this, if L2 learners are sensitive to islands and employ the same parsing strategies as native speakers do, there must be a convergence between the sensitivity of both groups to ambiguous and unambiguous questions. This difference will be inferred from the comparison of these groups’ reactions to both structures

1.5. Research Questions

To sum up, this thesis aims to investigate the research questions stated below:

1. Are Turkish learners of English sensitive to islands in English wh-movement, which are presumably not operative in their native language?
2. Does the performance of Turkish learners of English on the interpretation of bi-clausal wh-questions show a developmental pattern similar to what is postulated by the Full Transfer Full Access Hypothesis? In other words, do learners become better at island constraints as their proficiency increases?
3. Do Turkish learners of English employ the same parsing strategies as those possessed by native speakers when they process bi-clausal wh-questions? Is there a convergence between the processing of ambiguous and unambiguous wh-questions by native speakers of English and Turkish learners of English?

CHAPTER 2

REVIEW OF LITERATURE

This chapter includes previous studies on the three topics that are within the scope of this thesis: first language acquisition and processing of island constraints, second language acquisition of island constraints, and second language processing of island constraints.

2.1. Previous Studies on the First Language Acquisition and Processing of Island Constraints

Several studies were conducted to shed light on the way children acquire island constraints by examining whether they interpret bi-clausal wh-questions in compliance with these constraints. Syntactic islands have been assumed to cause a learnability problem for children (Crain, Thornton, 1998) and studies revealing adult-like judgments by children have been considered to have provided remarkable evidence for the existence of Universal Grammar.

2.1.1. De Villiers, Roeper, Vainikka (1990)

Highlighting the claim that the knowledge of long-distance extraction of wh-questions under certain circumstances is underdetermined by the input children are exposed to, De Villiers et al. examined the broad contrast between the Pragmatic Hypothesis, which maintains that children do not block long-distance interpretation of bi-clausal questions under certain contexts and the Syntactic Hypothesis, according to which children block lower-clause interpretation for a bi-

clausal question like ‘Why did John say how the plane crashed?’ no matter how relevant the lower-clause interpretation is in a certain context.

The second point they focused on was whether children were aware of the argument-adjunct asymmetry, namely they sought to answer when children came to know that a wh-word could block long-distance movement for an adjunct but not for an argument. In addition, they studied the interpretations children gave to questions which could have both long-distance and short-distance interpretation.

Twenty-five preschool children aged 3;7 to 6;11 participated in the study. All of them were native speakers of English. They were shown 16 stories and each story was followed by a wh-question. Six types of wh-questions were included in this test;

19. Argument wh-questions: sentences with a fronted wh-argument followed by an embedded clause that contained:

- a. No medial wh-phrase
 - i. Example: Who_i did the girl ask *t_i* to help *t_i* ?
- b. Argument wh-phrase
 - i. Example: Who_i did the girl ask *t_i* what to throw?
- c. Adjunct wh-phrase
 - i. Example: Who did the girl ask *t_i* how to paint *t_i*?

20. Adjunct wh-questions: sentences with a fronted wh-adjunct followed by an embedded clause that contained:

- a. No medial wh-phrase
 - ii. Example: When did the boy say *t_i* he hurt himself *t_i*?
- b. Argument wh-phrase
 - iii. Example: How did Kermit ask *t_i* who to help?
- c. Adjunct wh-phrase

- iv. Example: When did the boy know *ti* how he hurt himself?

The results showed that children were sensitive to island constraints in their choice of answer. Despite the existence of pragmatic bias, long-distance interpretation for argument wh-questions with argument medial, and adjunct wh-questions with adjunct or argument medial were very rare. Also, the hypothesis that children completely block long-distance movement was rejected as only a couple of the participants did not give downstairs (long-distance) responses to potentially ambiguous questions. Lastly, age had a significant effect in interaction with the type of the medial wh-phrase ($F = 4.065$, $p = 0.02$): younger children tended to answer the medial wh-argument questions instead of responding to the wh-question with the matrix scope.

2.1.2. Roeper and De Villiers (1991)

Following De Villiers, Roeper, Vainikka (1990), Roeper and de Villiers (1991) conducted an array of follow-up studies. A pilot study was conducted to provide an answer to whether children allow long-distance wh-movement and whether they allow this kind of movement only over bridge verbs such as *say*, rather than non-bridge verbs like *know*. Sixteen children aged 3,5 to 6,6 were presented four stories each of which was accompanied by a bi-clausal adjunct wh-question. With bridge and non-bridge verbs positioned in the matrix clause, 64 answers were yielded. The analysis showed that 23 of these answers had long-distance interpretation, which led the authors to conclude that children readily extract from lower clauses. However, there was no significant difference between the frequency with which children allowed for long-distance interpretation with factive and nonfactive verbs. Therefore, the authors argued that there was no strong evidence for the competence of children to distinguish bridge verbs from other type of verbs which preclude the downstairs (long-distance reading).

In the second experiment, the same children were asked to interpret bi-clausal questions that contained a medial wh-phrase. The medial wh-words varied between adjuncts *how*, *when* and an argument *what*. Each child received one

question starting with *what* and had adjunct wh-medials, and three questions starting with adjuncts; two of them had adjunct wh-medials and the other one had an internal *what*. Below is a sample story accompanied by the relevant pictures and questions asked after the story was presented:

-The mother did not know how to bake a cake. She watched a TV program about cooking. She learned to make a lovely cake with chocolate pudding mix.

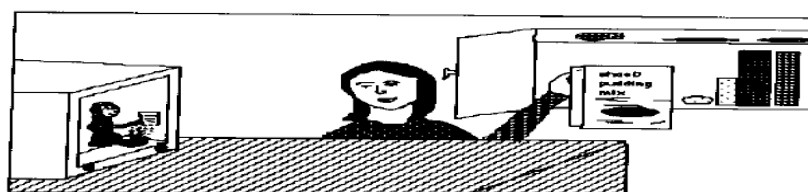
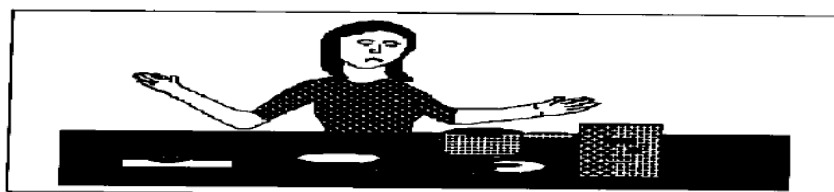


FIG. 9.2 Pictures to accompany story (35).

3

Q1: What did the mother learn how to bake?

Q2: How did the mother learn what to bake?

The results showed that for the type of questions exemplified in Q1, the children mostly preferred long-distance interpretation. In 13 out of 16 answers, the wh-phrase *what* referred to the verb of the embedded clause and two children responded to the medial wh-forms. However, for the type of questions exemplified in Q2, the results were exactly the opposite; 10 children gave a short-movement answer and the rest answered the medial clause instead of the matrix clause.

Based on these findings, Roeper and De Villiers concluded that children block long-distance movement of adjuncts if there is a medial wh-word regardless of whether it is an argument or adjunct. Furthermore, they claimed that children allow long-distance interpretation of wh-arguments if another wh-word appears to be in the embedded clause. The overall conclusion the authors reached based on these data was that children distinguish the properties of arguments from the properties of adjuncts.

2.1.3. McDaniel, Chiu, Maxfield (1995)

The goal of this study was to investigate the types of wh-constructions the children accept during the period of first language acquisition. Thirty-two children aged 2;11- 5;7 were employed for the study. There was a longitudinal study consisting of four sessions that were separated from each other by three or four months. The data consisted of children's grammaticality judgments on certain sentences. The data were elicited by using a puppet to which the questions could be addressed. The same questions were later directed to children. An example is provided below:

Q: Linguist [referring to Grover prop]: If Grover kissed someone, but we don't know who, does it sound OK if I ask Nelly [puppet] this way: 'Nelly, who do you think who Grover kissed?'

Besides fillers and practice sentences, twenty-four sentences were used in the study. Three types of wh-movement were taken into account in the analysis of the data: full wh-movement (occurring in English, German, Romani), partial wh-movement (occurring in German and Romani), and wh-copying multiple questions (including multiple wh-movement) (occurring in some dialects of German and Romani).

Data analysis showed that there was a negative correlation between the frequency with which the children accepted partial wh-movement and multiple wh-copying. Younger children accepted structures not instantiated in English but available in other languages like German and Romani.

Another important finding was that even though children accepted to some extent all three types of questions (ones involving full wh-movement, partial wh-movement and wh-copying), none of the participants demonstrated a That-trace effect. According to the authors, there is a close relationship between these two findings; they theorize that languages activating wh-constructions do not have the [pred] feature, proposed by Rizzi (1990), which draws the distinction between the [Spec, CP] of relative clauses and other structures such as interrogatives. Based on this data, it is proposed that children are born with a parameter (with relative clauses activating [pred] feature and with wh-constructions not allowing [pred] feature) and this parameter is revised as a result of the increase in the input and they switch to a grammar activating this feature.

2.1.4. De Villiers, De Villiers, Roeper (2007)

Assuming that partial wh-movement is ungrammatical in English but it still exists as an option for children, this study aims to account for the path children follow to reach an adult-like competence in their native tongue from indirect questions to wh-movement in simple and complex sentences.

The researchers propose that the interpretation of wh-constructions is realized in a 'One Phase at a Time' fashion, which leads children to give answers referring to a wh-medial, and to treat the wh-trace as if it only referred to the lower clause. Such a preference for local transfer in the child grammar can be explained by a feature-checking account. The authors proposed that the higher verb projects a Feature Bundle to its complement. This model was claimed to reflect the complex changes in language acquisition. The researchers hypothesized that such a locality restriction would start to be abandoned with the arrival of trace and the acquisition of feature-marking indirect questions. They also argued that there was a delay in the occurrence of these features in children with specific language impairment (SLI) and that children acquiring African American English (AAE) had an advantage over those acquiring Mainstream American English (MAE) in avoiding errors of partial wh-movement because of AAE's property of marking indirect questions via inversion in the lower clause.

To test these two hypotheses, the answers given by three groups of children to complex wh-questions were assessed: AAE speakers, children with SLI and MAE speakers. Out of 590 participants, there were 352 AAE speakers and 258 MAE speakers. 192 of them were language-impaired (30% of the AAE speakers and 36% of MAE speakers). The authors analyzed children's answers to complex wh-questions in a subtest called the Communicative Role Taking. The children were shown pictures while being told a story. Then, they were asked questions with or without wh-medial such as 'How did the woman learn what to bake?' or 'What did the mother say she bought?'.

The data were obtained by a test called the Dialect Sensitive Language Test (DSLTL), which assesses 4 to 9-year-old children's syntax, semantics, pragmatics and speech production skills designed to be unbiased against speakers of AAE (African American English) and related dialects. This paper consisted of the analysis of children's answers to complex wh-questions in a subtest called the Communicative Role Taking. The children were shown pictures while being told a story. Then, they were asked questions with or without wh-medial such as 'How did the woman learn what to bake?' or 'What did the mother say she bought?'.

The results confirmed both of the hypotheses. Namely, children with SLI continued to have difficulty in the appropriate interpretation of real long-distance movement and medial long-distance questions for a considerably longer time than the other groups. Secondly, children speaking AAE gave fewer wrong answers to the questions with a wh-medial, to which MAE learners more frequently reacted by giving an answer to the wh-medial, an indication of partial movement.

2.2. Previous Studies on the Second Language Acquisition of Island Constraints

It is possible to say that, for decades, acquisition of island constraints in a second language has been one of the most hotly-debated issues in UG-based studies of second language acquisition. Findings of a great number of studies showing either L2ers' success or their failure in grasping the Subjacency Principle

led most researchers to support one of the two hypotheses: Fundamental Difference Hypothesis (FDH), which claims that second language learners hardly succeed in attaining native-like competence, and Full Transfer Full Access Hypothesis (FTFA), postulating that the same apparatus called Universal Grammar is available in both first and second language acquisition. In this part, some of the prominent studies supporting one or the other hypothesis will be reviewed.

2.2.1. Studies Supporting the Fundamental Difference Hypothesis

2.2.1.1. Schachter (1989)

Bley-Vroman (1989) is of the opinion that domain-specific language acquisition system activated in the process of first language acquisition is not kept activated in the second language learning of adults and the process adults goes through while learning a foreign language is no different than a general learning process with no specific predisposition. This proposal which he called Fundamental Difference Hypothesis (FDH) was firstly upheld by Schachter's investigation of the availability of UG to the Chinese, Korean and Indonesian learners of English in the USA. The author explained why she employed these participants by referring to the properties of these languages:

- Korean disallows any kind of wh-movement (and, consequently, the subjacency principle is not activated in this language),
- subjacency is activated in some structures of Indonesian but not in interrogatives, and
- Chinese is assumed to involve a weak version of subjacency through topicalization.

20 Chinese, 21 Korean and 20 Indonesian participants who were highly proficient in English took a grammaticality judgment task which included 24 questions involving subjacency violations, 16 grammatical questions, and 18 filler sentences. Their judgments were compared to those of native controls. The results showed that all the groups fell behind the performance of the control group.

Korean learners were slightly less accurate than Chinese and Indonesian groups but this difference was not statistically significant.

Based on this finding, Schachter declared his disagreement with the assumed correlation between the successful resetting of parameters and L2 success; she stated that instantiation of a principle, say the Subjacency Principle, in both the native and target language cannot guarantee the acquisition of that principle in a second language. She considered these results to indicate that access to UG is not probable during the course of second language learning.

2.2.1.2. Schachter (1990)

In the following year, Schachter increased the number of experimental groups by administering the same test to 18 Dutch learners of English, who were first year undergraduate students in Holland. Dutch is claimed to have the same parameters as English in terms of the Subjacency Principle. 21 Indonesian, 20 Chinese and 20 Korean learners of English, who were exposed to English in the USA, also participated in this study. None of them had taken part in the former study. . As a control group, 19 native speakers of English were employed for the test.

The results once more showed that Koreans were the least accurate group. Although Chinese and Indonesian participants were slightly better than Koreans, there was no significant difference between the performances of these three groups. On the other hand, the Dutch learners of English were significantly better than the other experimental learners and their judgments were quite close to those of native speakers (no significant difference was found between the two scores).

These findings led Schachter to revise her claims about the effect of the parameter in the learners' mother tongues. Even though Korean, Chinese and Indonesian participants had more exposure to English and they were more proficient speakers of English, their judgments were poorer than those of Dutch L2ers, who learnt English in Holland. Therefore, she claimed that the identity between L1 and L2 parameters could be the determinant of access to Universal Grammar in a second language. Fundamental difference between the L1 and L2

acquisition emerges on the parameters not activated in L1, which remain inaccessible upon the completion of the acquisition of L1.

2.2.1.3. Johnson & Newport (1991)

Johnson & Newport's (1991) study differs from the earlier studies in that it investigated the qualitative difference in second language acquisition before and after the puberty. 23 Chinese participants, who started the immersion program of English in the USA after the age of 18, and 21 Chinese L2ers of English, who came to the USA between the ages of 4 to 16, took a grammaticality judgment task. The test consisted of 144 sentences, half of which involved the violation of the Subjacency Principle. 12 simple (mono-clausal) wh-questions (excluding an embedded clause) and 24 fillers were added to the experimental questions.

The overall results demonstrated that the second experimental group (those who arrived in the USA at an early age) exhibited a significantly better performance in the test. Further analysis remarkably showed that the Chinese participants who were immersed in English between the ages of 4 to 7 were significantly better than the rest of the experimental group and their performance was quite close (no significant difference) to that of native speakers. The rest of the experimental groups were significantly less accurate than the native speakers, as well.

According to Johnson and Newport, these results indicate that there is a critical age for the access to Universal Grammar in a second language, just as is the case in the first language acquisition and this period could be 4 to 7. Following this period, this endowment 'undergoes a very broad deterioration as learners become increasingly mature' (p. 216).

2.2.2. Studies Supporting the Full Transfer Full Access Hypothesis

2.2.2.1. Bley-Vroman, Felix & Ioup (1988)

Bley-Vroman, Felix and Ioup (1988) sought to answer whether Korean learners of English, whose native tongue is not constrained by the Subjacency Principle, could develop a native-like competence in this property of English. 92

Korean participants who learned English in the USA participated in the study. They were all classified as advanced learners of English. The participants were administered a grammaticality judgment task, which consisted of questions and sentences involving wh-movement, noun complements and relative clauses, some of which violated the Subjacency Principle. The subjects had three options: 'Grammatical', 'Ungrammatical' and 'Not sure'.

It was seen that subjects did not choose the 'Not sure' alternative often. Besides, they displayed an overall inclination to reject sentences rather than to find them grammatical. Nevertheless, their overall performance shared some similarity with native speakers' judgments and it was above the chance level; they judged 87% of questions involving wh-islands accurately, and they were accurate in 84% of relative clauses although their performance was a bit poorer in noun complements (64%).

As a result of these results, Bley-Vroman et al. concluded that UG effects were found in the subjects' performance. As such a success cannot be attributed to the similarity of parameters or explicit knowledge of island constraints (which were checked before the administration of the test), the authors find it impossible to argue that adult learners have no access to Universal Grammar.

2.2.2.2. Li (1998)

There are two types of island based on the Subjacency Principle: strong islands including extraction from relative clauses and adjunct clauses and weak islands including wh-extractions and determiner phrases with clausal complements. With reference to this fact, Martohardjono (1993) found out that second language learners were consistently more successful in judging strong islands than weak islands and that such a uniformity could signal the availability of Universal Grammar in a second language.

In order to evaluate this hypothesis, X. Li designed a grammaticality judgment task involving sentences with strong and weak island violations. 180 Chinese learners of English residing in China and 16 Chinese learners of English in the USA were employed for the task along with 25 native speakers.

The results showed that there was a significant difference between the accuracy rates of the two experimental groups. Members of the group living in the USA were more accurate than those living in China in judging sentences involving both strong and weak islands. The Chinese learners in the USA were almost as accurate as the native speakers (except in the wh-islands) while the Chinese in China fell behind the native speakers.

However, no matter how inferior the China groups' performance was, they were still significantly better at judging strong islands compared to weak islands. This was true of the other two groups, too. Therefore, X. Li claimed that this uniformity confirmed the hypothesis that Universal Grammar delimits the construction of mental grammar in a second language.

2.2.2.3. White & Juffs (1998)

Researchers drew the distinction between second language acquirers and foreign language learners, the former group consisting of those who learn the foreign language in an environment in which the language is spoken natively, while the latter learn it via classroom instruction. Referring to Felix and Weigl (1991), who claimed that access to Universal Grammar (UG) is dependent on the learning environment, namely that second language acquirers have an advantage over foreign language learners, White and Juffs attempted to answer whether L2 learners of English whose mother tongue does not activate the Subjacency Principle have access to UG. They were also interested in whether there is a qualitative difference between the performance of foreign language learners and second language acquirers.

There were two experimental groups in the study. One of them consisted of 16 Chinese learners of English living in China and the other group had 16 Chinese learners of English living in Canada. Members of both groups were highly proficient in English. The subjects were asked to complete two tasks: a timed grammaticality judgment task and a question formation task. The timed grammaticality judgment task consisted of 60 questions, half of which were ungrammatical owing to the violation of the Subjacency Principle. There were 19

sentences in the question formation task that the participants were asked to turn into wh-questions. However, 4 of the sentences could not be converted into questions as they would violate the mentioned principle. The participants were expected to find some way of phrasing these questions to avoid the violation.

The results obtained from the grammaticality judgment task showed that except for the questions involving That-trace effect³, neither of the groups were significantly different from the native speakers with respect to accuracy and they were not significantly different from each other (in contrast with the findings of X. Li (1998)). When the reaction times to the wh-constructions were measured, it was seen that L2ers were slowest in questions involving That-trace effect. That is why it was claimed that processing difficulty might result in the failure of proper judgments for the relevant structure.

In the question formation task, both groups were recorded to allow long-distance movement as well as short-distance movement in their questions. As regards avoidance of structures violating constraints, the participants living in China were significantly better than the subjects residing in Canada.

To sum up, this study suggests that the environment where a second language is acquired is not an important factor of attaining proficiency. Moreover, learners seem to have access to UG even if the relevant principle is not present in their L1. Finally, processing difficulty may cause a deficiency in the learners' judgments.

2.3. Previous Studies on the Second Language Processing of Island Constraints

2.3.1. Juffs & Harrington (1995)

The goal of this study was to investigate the difference between the accuracy of second language learners in judging wh-sentences of object extraction compared to subject extraction. It had long been claimed that there was a

³ That-trace effect is the prohibition of long-distance movement of subjects immediately preceded by an overt complementizer.

subject-object asymmetry in the extraction from an embedded clause and that this difference was caused by the underlying competence. Juffs and Harrington, however, attributed this difference to the processing difficulty in the extraction of the subject of the embedded clause. To confirm this hypothesis, an online study measuring response times through a non-cumulative moving window technique was administered. A grammaticality judgment task was used, which included grammatical and ungrammatical extractions of subjects and objects. Two types of conditions were created to measure the way L2ers process the mentioned sentences: calculation of the reading times of the whole sentence and a word-by-word reading to measure the latencies between the phrases.

25 Chinese learners of English living in the USA participated in the study along with the native controls. Results obtained from both tasks confirmed the hypothesis that processing difficulty rather than the lack of competence in a second language underlies the L2ers' failure in judging the wh-questions involving subject extractions accurately. When the reading times of the experimental groups for the sentences involving subject extraction were compared to their reactions to object extraction, it was seen that the participants were significantly faster in wh-questions involving object extraction. However, such a difference was not revealed in the response times of native speakers to the same questions. Therefore, Juffs and Harrington concluded that contrastive parsing models rather than the unavailability of Universal Grammar in second language acquisition are the main reason why L2er lagged behind the native speakers in the accuracy of their judgments. In other words, while the nature of the linguistic competence of L2ers does not differ from that of native speakers, it is the way L2ers process the relevant structures that results in poorer results.

2.3.2. Juffs (2005)

To test whether the results of Juffs & Harrington (1995) would be replicated among second language learners of English from different L1 backgrounds, Juffs conducted a timed grammaticality judgment task that included

grammatical and ungrammatical *wh*-extractions of subjects and objects. He made use of the items that were utilized in Juffs & Harrington (1995) and White & Juffs (1998).

30 Chinese speakers of English, 28 Japanese speakers of English and 46 Spanish speakers of English participated in the online study along with 22 native speakers. The Michigan Test of English Language Proficiency was administered to eliminate the possibility the differential proficiency among the experimental groups. The expectation was that if there was an L1 effect on the learners' judgments, speakers of L1s that did not have *wh*-fronting would have problems similar to those of the Chinese speakers, but learners whose L1 had *wh*-movement would not. That is to say, the performance of the Japanese speakers was expected to be similar to that of the Chinese speakers, whereas Spanish speakers were expected to display better performance than both of these groups.

Unlike in the experiment in Juffs & Harrington (1995), only word-by-word reaction times were measured. The results showed that irrespective of the properties of the first language of the participants, overall there was no significant difference among the performance of the experimental groups. Again, participants showed the poorest performance on the *wh*-constructions involving subject extraction. However, when the experimental groups' reactions to subject extraction in nonfinite clauses were compared to their reactions to finite clauses, a significant difference was yielded. The author accounted for this difference in the processing by pointing to the two consecutive finite verbs and their effects on the parsing breakdown or garden path.

2.3.3. Marinis & Roberts & Felser & Clahsen (2005)

The authors attempted to find an answer to whether second language learners of English were sensitive to intermediate gaps as they processed long-distance *wh*-dependencies. In other words, they were interested in how L2ers process sentences like '*Which booki* did you read *ei* in only an hour?'

Making use of a self-paced reading task designed in the noncumulative moving window technique, the participants were asked to read sentences involving long-distance wh-movement and to answer the questions following the sentences. The test was made up of 88 sentences in total; 8 practice items, 20 experimental questions, and 60 fillers. The sentences were presented in a segment-by-segment fashion rather than in a word-by-word reading technique used in Juffs (2005).

There were four experimental groups in this study: 34 Chinese speakers of English, 26 Japanese speakers of English, 24 German speakers of English, and 30 Greek speakers of English. Their proficiency levels were not different from each other.

The results showed that all the groups were quite accurate in their answers as none differed significantly from the native controls.

As for the reading times, it was seen that native speakers postulated intermediate syntactic gaps at the beginning of the embedded clauses which forced them to elicit relatively longer reaction times in this region. However, the results showed that there were no intermediate gap effects for L2ers, as indicated by the lack of latency in the critical region. When the reaction times of different L2ers were compared, no significant difference was found between speakers whose L1 has (successive cyclic) wh-movement and speakers L2ers whose L1 does not have it.

Based on these results, the authors concluded that even though second language learners do not have difficulties in the comprehension of the relevant structures, they do not make use of the same parsing strategies as native speakers do. This difference is independent of the properties of the learners' first language. The underuse of syntactic information during the online processing supports the Shallow Structure Hypothesis.

2.3.4. Çele & Gürel (2011)

Similar to Marinis et al. (2005), Çele and Gürel aimed to investigate the online processing of long-distance wh-movement in a second language and the

effect of the first language on the processing of structures in the target language. An online grammaticality judgment task was used for this purpose. Like in Juffs & Harrington (1995), the question items were presented in two conditions: as full sentences and in a word-by-word fashion. A self-paced reading task with the noncumulative moving window technique was administered. The task included 50 grammatical and 50 ungrammatical questions involving long-distance wh-extractions.

There were two experimental groups: 31 Turkish and 25 Spanish speakers of English. Since Turkish does not have wh-movement, but Spanish, like English, does, a potential difference between the groups' performances could be caused by the different parameters in the participants' first language. All the participants were highly proficient in English. 31 native controls were also employed for the experiment.

The results were in agreement with Marinis et al.'s (2005) findings as regards the L2er's accuracy. Both groups were rather accurate in their judgments without a statistical difference from native speakers. However, this study yielded a contradictory result in terms of the online processing of long-distance wh-extractions. Although experimental groups were a bit slower than native controls, they displayed a similar processing pattern; for instance, both experimental groups and native speakers were slowest when they encountered That-trace effect or subject extraction in nonfinite clauses. Therefore, based on these findings the authors claimed that the availability of a general computational mechanism 'enables L2 learners to accomplish online implementation of constraints in a manner which is not qualitatively different from that of native speakers' (p. 42). This is in line with the Continuity Hypothesis explained in the Introduction.

All in all, the review of the literature shows that the issue of the accessibility of Universal Grammar in second language acquisition and the nature of second language processing is still at issue. The goal of this thesis is to contribute to these debates by means of the offline and online examination of L2ers' sensitivity to island constraints and processing strategies in ambiguous bi-

clausal questions. It is predicted that the study will yield results in line with the Full Transfer Full Access Hypothesis and the Continuity Hypothesis.

CHAPTER 3

METHODOLOGY

This chapter includes the statement of the research questions and the predictions specific to each experiment in the study as well as the data collection procedures of the experiments conducted to shed light on the (in)validity of the Second Language Acquisition and Processing Theories reviewed in Chapter I.

3.1. Research Questions

1. Are Turkish learners of English sensitive to islands in English wh-movement, which are presumably not operative in their native language?
2. Does the performance of Turkish learners of English on the interpretation of bi-clausal wh-questions show a developmental pattern similar to what is postulated by the Full Transfer Full Access Hypothesis? In other words, do learners become better at island constraints as their proficiency increases?
3. Do Turkish learners of English employ the same parsing strategies as those possessed by native speakers when they process bi-clausal wh-questions? Is there a convergence between the processing of ambiguous and unambiguous wh-questions by native speakers of English and Turkish learners of English?

Regarding the first two research questions, in parallel with aforementioned previous studies in the review of literature, which provided evidence for the applicability of the Full Transfer Full Access Hypothesis, I predict that there will be a gradual restructuring of the relevant parameters among the second language learners. This means that learners will show sensitivity to Island Constraints but at

varying rates; advanced learners will be significantly better than intermediate learners at disallowing long-distance construal of the fronted wh-phrase interpretation of the questions when there is a medial wh-phrase. Additionally, since native-like competence is an imaginary destination for second language learners, it is likely that there will be a difference between the performances of native speakers and all the non-native participants regardless of their proficiency in English.

As for the final research question, which examines the second language processing of bi-clausal wh-questions in English, I expect that the results of both the offline and the online experiments will be in accord with the Continuity Hypothesis, which claims that there is no qualitative difference between the parsing performance of native speakers and second language learners, rather than the Shallow Structure Hypothesis, which argues that second language learners cannot construct detailed representations while parsing L2 structures. Provided that second language learners obtain sufficient and appropriate grammatical knowledge, this can allow them to parse these structures through the strategies owned by native speakers. Therefore, I do not predict a significant difference between the processing of bi-clausal wh-questions by native and non-native speakers of English.

3.2. Experiment 1: An Offline Questionnaire in English

The first experiment, named the Reading Comprehension Task, was devised to attempt to answer the first and second research questions of this thesis and to find a partial answer to the third research question. In other words, an offline questionnaire could determine three things: (i) whether Turkish L2 learners of English are sensitive to Island Constraints, which would be demonstrated if they had no trouble distinguishing between ambiguous and unambiguous questions by making use of their knowledge of these constraints, (ii) whether there exists a developmental pattern between the learners concerning their performance on the

interpretation of these types of questions and (iii) what types of ambiguity resolution strategies are employed by native speakers and second language learners.

3.2.1. Participants

There were two experimental groups taking the offline test; the groups were formed according to the proficiency levels of the participants. In order to identify the level of the subjects, they were asked to complete the Oxford Quick Placement Test (OPT) (Allan, 1992), a standardized English proficiency test, before they took the offline questionnaire.

One of the groups consisted of 30 intermediate level METU students at the Department of Foreign Language Education. They were all native speakers of Turkish aged 18-20 (mean age: 18,6, SD: 0,71). The participants in this group were all 1st grade students when they took the test. None of them scored above 43/60 (mean score: 41,02, SD: 1,11) in the Oxford Quick Placement Test, which indicated that they were intermediate level learners according to the interpretation of the scores provided along with the test (see Appendix A for the interpretation table).

The other group was made up of 30 advanced level METU students. Like in the first group, the members of this group were all native speakers of Turkish. They were students at the Department of Foreign Language Education, too. They were in their 3rd year at the Department when they participated in this study. The oldest participant was 22 years old while the youngest one was 19 (mean age: 20,6, SD: 0,88). They all scored above 57/60 (mean score: 58,2, SD: 0,98) in the same placement test, which indicated that their level was advanced.

Besides the interpretation table, an independent-samples t-test was applied to reveal whether the difference between the OPT scores of the two groups were significantly different. The results ($t(1,58) = 11.092$ $p = .002$) confirmed that the groups scored differently in the Oxford Quick Placement Test.

30 native speakers of English doing graduate or undergraduate study at a university in England formed the control group. The average of the age of this group was 21.1, the oldest one being 24 and the youngest member 18 years old (SD: 1,91). One of the native speakers was from the United States whereas the rest were from England. Furthermore, none of the participants had studied syntax before.

3.2.2. Data Collection

3.2.2.1. Instruments

A 40-question-offline task was administered to all the three groups of the participants to reveal L2 learners' knowledge of Island Constraints in English. The task form contained biographical data form and experimental questions.

The first part of the questionnaire consisted of questions regarding the participants' age, educational background, and explicit knowledge of English syntax. The distinctive question was the last one; whether any of the participants had been explicitly taught English syntax, this would make them inappropriate subjects because they would violate one of the conditions to study the availability of Universal Grammar in a second language which were mentioned in the first chapter; the learnability condition. However, none of the participants in the experimental groups stated that they had explicit knowledge of English syntax.

The participants were informed that the test they were asked to take was a Reading Comprehension Task. The questionnaire was made up of ten paragraphs containing six to eight sentences. These paragraphs were taken from the web site of a general interest family magazine called Reader's Digest (www.rd.com) and they were adjusted to a content which could be as funny as possible to distract the participants' attention from the grammatical components of the questions presented after the paragraphs.

There were four questions following each paragraph, one of them was an ambiguous question making both short-distance and long-distance interpretation possible, another one was an unambiguous question which had only a short-distance interpretation. Two questions in each paragraph were fillers. These were unambiguous questions with a long-distance interpretation because of their contexts. Below is the third paragraph from the test and questions to be answered upon reading the paragraph. (See Appendix B for the Reading Comprehension Task)

STORY III

Sitting at home with my son last week, I told him that before his birth I witnessed one of the funniest things ever. Unfortunately, he did not have time to listen to the story because of his assignments, so I left the note in his room so that he could read it later:

“Before your birth, your dad and I attended birthing classes at the hospital. One day we toured the maternity ward. The instructor mentioned that on the last evening of our stay, we would be given a complimentary dinner for two, and she told us what the menu selections would be. As we continued the tour, I whispered to my husband that I was getting very excited. Nodding his head, he quietly replied that he would happily order fish just after the birth.

Q: When did the woman say that she witnessed one of the funniest things ever?

A: Last week

B: Before the birth of his son

Q: Why does the woman think that his son could not listen to her?

A: He found it boring.

B: He had some assignments.

Q: When does the woman state that they attended birthing classes?

A: Before she gave birth to her son

B: After she gave birth to her son.

Q: How did the husband say when he would order fish?

A: Happily

B: Quietly

The first question of this test was ambiguous on the basis of the story and the lack of islands while the final question was unambiguous with an island. The second and third questions were fillers and they allowed only long-distance interpretation in accordance with the context. To eliminate the possibility that the order in which the options were provided would lead to a bias on the participants' responses, the order of answers corresponding to the long-distance and short-distance interpretations was mixed.

The participants were asked to read the instruction carefully before completing the questionnaire. In addition, the procedure was expressed once more in Turkish for the subjects of the experimental groups in case there should occur any misunderstanding owing to the lack of the command of English among some of these participants.

3.2.2.2. Procedure

Prior to the administration of the test, five 1st grade and five 3rd grade students at the Department of Foreign Language Education (FLE) at METU completed the questionnaire for the pilot study. While 3rd grade students found no problem with the clarity of the instruction or the content of the questionnaire, several of the 1st grade students mentioned that there were some unknown words in the paragraphs. As this could affect the performance of the participants, these words were changed with simpler ones of higher frequency.

Following the pilot study, the participants of the study were asked to read the paragraphs and answer the questions related to each paragraph as fast and carefully as possible just like reading a newspaper in real time. They were also requested to choose the most appropriate alternative if some of the questions might have more than one suitable answer. Even though they were informed that they should feel free to ask if they encountered any unknown words in the paragraphs, nobody needed to check the meaning of any words in the questionnaire. The administration of the questionnaire to the experimental groups lasted twenty-five

to thirty minutes whereas those in the control group completed the task in some twenty minutes.

3.3. Experiment 2: An Online Questionnaire in English

With respect to the third research question which attempts to answer whether Turkish learners of English employ the same parsing strategies as those possessed by native speakers when they process bi-clausal wh-questions, it is necessary to test whether Turkish learners of English use the same parsing systems as native speakers do because of the reciprocal influence of the acquisition and processing during the process of second language learning. In line with this objective, psycholinguistic techniques such as reaction time studies have turned out to be of important help to unearth the contrastive processing strategies of native speakers and second language learners.

Reaction time studies are also efficient in identifying the points where the participants of the study have difficulty in processing. As mentioned in the first chapter, Juffs (2001) argued that slower reading times and reaction towards the linguistic elements might be reflecting the processing difficulties the learners go through. It is also necessary to restate the fact that ungrammatical and ambiguous forms take longer times to be processed by native speakers (Juffs, 2001). That is why it is predicted that ambiguous questions investigated in this thesis such as ‘When did the boy say that he was punished?’ are harder to process than unambiguous questions like ‘When did the boy say how he was punished?’. In a similar manner, longer reaction times are expected to emerge in the types of former questions compared to the latter ones. If L2 learners’ reactions towards these questions display a pattern like this, it will indicate that L2ers have gained the same sensitivity towards ambiguous and unambiguous questions in real time as their native counterparts. In this case, the results will support the Continuity Hypothesis; otherwise, the results will be compatible with the Shallow Structure Hypothesis.

3.3.1. Participants

The participants of the Reading Comprehension Task also took part in the Online Experiment, which enabled me to compare their offline and online performance. They had normal or corrected-to-normal vision. They were all kept naïve with respect to the purpose of the study until the end of the administration of the test. All the participants completing both offline and online tasks were paid a small fee for their contribution to the study.

3.3.2. Data Collection

3.3.2.1. Instruments

A laptop computer with a 15.6'' screen was used to run the self-paced reading task, which was designed by means of a software program *E-Prime* Experimental Software (Schneider, Eschman & Zuccolotto, 2002a, 2002b) which is designed to estimate the milliseconds between the processing of different regions in a sentence.

In all sessions of the Online Experiment, items were presented in white letters on a dark background in Arial 24-point-font. The questionnaire started with a couple of questions to match the participants' performance on this task with the one of the Reading Comprehension Task (offline experiment) (i.e. session number coded by the administrator with a different number for each subject, age). This part was followed by the instruction given below:

In this experiment, you will be shown sentences in English. After you have read each sentence, you will be shown a question related to it.

The question will appear on the screen one phrase at a time- as you press the spacebar, the words or phrases that you have already read will disappear.

Please, make sure that you read the questions as quickly and carefully as possible.

After you have finished reading each question, press the spacebar and a choice of two possible answers to the question will appear on the screen. Keeping in mind the original sentence, please press the A key if you think answer A is correct, and the B key if you think answer B is correct. Then proceed with the next sentence.

Press the "Spacebar" for practice.

The actual experiment consisted of forty question items as was the case in the Reading Comprehension Task described above. Out of the forty questions, ten were ambiguous questions and ten were unambiguous questions including a medial wh-phrase. Half of the questions were fillers just as it was in the Reading Comprehension Task (see Appendix C). However, unlike the offline questions exemplified above, each question was preceded by only one sentence rather than a paragraph since reading a whole paragraph before answering questions in real time would lead to a remarkable load on the participants' working memory. Furthermore, since the online performance of the subjects is likely to be poorer in the last questions of the test, two versions of the questionnaire containing the same questions were prepared in order to eliminate the possible effect of fatigue on the participants' performance. Half of all the groups completed Version I and the other half was presented with Version II of the experiment. Additionally, the order of the answers was mixed to make sure that participants would not develop strategies while giving responses as was done in the former experiment.

An entire sentence made up of twenty to twenty-five words appeared on the computer screen all at once and the non-cumulative moving window technique was utilized to present the questions. That is to say, the participants were required

to see the relevant questions phrase-by-phrase by pressing the spacebar button. The questions were displayed in nine segments, subjects and objects were presented in one region each and seven regions were filled with one-word constituents. The time that participants took to request the following phrases was measured.

Even though the main objective of this task was to measure the reactions of the second language learners towards ambiguous and unambiguous questions, two alternative answers emerged on the screen one under the other following each question. This way, additional offline data were obtained because the participants were asked to answer the questions after they had heard the complete sentence (Marinis, 2003). These alternatives tested the participants' comprehension of the question and prevented them from completing the task in a mechanical way by pressing the buttons without concentrating on either the content of the sentences or the type of the questions. Below is a sample question and alternatives (notice that pluses show the regions):

Sentence: Hearing that he failed, my friend disappointedly told me that he would challenge the result properly when he met the instructor.

Question: How + did + my friend + say + when + he + would + challenge + the results?

A.) Properly

B) Disappointedly

Before the actual test took place, the participants were exposed to three practice test items to become familiar with the procedure of the experiment. As was emphasized in the instruction, the subjects were asked to read the sentences and answer the questions as fast and as carefully as possible. The experiment ended with a final 'thank you!'.

The software program was configured to measure the reaction times and accuracy of responses.

3.3.2.2. Procedure

In addition to the volunteers of the Reading Comprehension Task, eight research assistants at the FLE Department and two undergraduate students from other branches accepted to take the Online Experiment. Thanks to their comments, several points in some of the sentences were simplified so that participants' attention could not be diverted away.

Each of the participants took part in the experiment one-by-one in silent rooms at METU and a university in England. The members of the experimental groups were invited to this study at least one week after they were employed for the offline questionnaire. I got in contact with the members of the control group for this study three days after the implementation of the offline research to preclude participants' attempts to gain insight about the purpose of the experiment. It took approximately fifteen minutes for the members of the control group to complete the test while the administration of the study on the members of experimental groups lasted twenty to twenty five minutes.

3.4. Experiment 3: A Grammaticality Judgment Task in Turkish

As stated in the first chapter, one of the prerequisites for commencing a study on the availability of UG in a second language is that parameter setting of the phenomenon investigated be different in the native language and the target language of the participants. Moreover, because I also aim to identify whether there is an L1 transfer in the way learners acquire and process bi-clausal wh-questions, the equivalents of the above-referred ambiguous and unambiguous wh-questions in the learners' mother tongue need analyzing.

It has long been argued that Turkish has the property of scrambling rather than wh-movement. This property makes it possible for the wh-word to be positioned in a sentence-initial slot. Below are the examples of long-distance wh-movement in English with and without medial wh-phrase and their equivalents in Turkish in canonical as well as scrambled order.

1. Bi-clausal wh-questions without a medial wh-phrase

- 21.a. In English: When did the boy say that he was punished?
- b. In Turkish: Çocuk ne zaman cezalandırıldığını söyledi? (referring to either the matrix clause or the embedded clause)
- c. In Turkish: Çocuk cezalandırıldığını ne zaman söyledi? (referring to only the matrix clause)

2. Bi-clausal wh-questions with a medial wh-phrase

- 22.a. When did the boy say how he was punished?
- b. Çocuk ne zamanı nasıl cezalandırıldığını t_i söyledi t_i ?
- c. Çocuk nasıl cezalandırıldığını ne zaman söyledi? (canonical word-order)

Before testing whether the processing of ambiguous forms in the learners' mother tongue (as in 1.b.), which are naturally different from the ambiguous structures in English (as in 1.a.), affects their L2 processing and whether the scrambled wh-questions including medial wh-phrases in Turkish constitute islands (which leads to the impossibility of two interpretations), the grammaticality of the question patterns exemplified in 2.b. must be examined. In other words, the first thing to be done is to determine whether a wh-phrase relating to the matrix clause is allowed to cross over another wh-phrase referring to the embedded clause and take a fronted position just as it is in English.

3.4.1. Participants

30 undergraduate students at the Preparatory School of a university in Turkey participated in the Grammaticality Judgment Task. All of the participants were native speakers of Turkish. Their ages ranged from 18 to 21, the average being 18,7 (SD: 0,71). None of them had studied Turkish syntax before. Moreover, none of them considered themselves to be proficient in any foreign languages.

3.4.2. Data Collection

3.4.2.1. Instruments

In order to determine the degree of well-formedness of the question forms exemplified in 2.b., a grammaticality judgment task was administered (see Appendix D). A numerical scaling technique called “Likert Scale” was employed in this study. The task form included biographical data form and experimental questions.

Biodata questions were presented in Turkish just like the rest of the questionnaire and these questions were asked in order to elicit general information about the participants. If any of the participants had rated themselves as proficient enough in any foreign language or if they had studied Turkish syntax, they would have been eliminated from the experimental group.

In this task, the participants were provided with 30 sentences with two consecutive adverbs underlined (adverbs of time, manner or place) in each of them. There were five possible questions below these sentences, each containing two wh-phrases corresponding to the underlined adverbs. The participants were asked to read these sentences carefully and evaluate the questions in terms of syntactic and semantic appropriateness.

The instruction was followed by an example in order to make the subjects’ task more explicit: as some of the alternatives might be equally “good” or “bad”, the participants were not asked to rank the questions from 1 to 5 (1 meaning the most appropriate and 5 meaning the least appropriate alternative) but to evaluate their grammaticality from both syntactic and semantic aspects without making comparisons with the former or latter alternatives. The sample judgment included ratings of the same number (e.g. rating 2nd and 3rd alternatives as 5, and 1st and 5th as 1) so that participants could feel free to evaluate the choices with the same number whenever they needed. The instruction and the sample question are given below:

Aşağıdaki cümleleri dikkatle inceleyerek, cümle içerisinde altı çizili olarak belirtilen sözcük gruplarına yönelik olarak verilen soru cümlelerini dilbilgisel ve anlamsal uygunluk açısından değerlendiriniz.

Her bir seçeneği kendi içerisinde inceleyerek, size göre en uygun olan seçenek(ler)e 1, en uygun olmayan seçenek(ler)e 5 verecek şekilde, 1 – 5 arasında derecelendiriniz.

Örnek:

Ahmet yağmur yağınca sırlıslıkla ıslandığını söyledi.

Ahmet ne zaman nasıl ıslandığını söyledi?	1	2	3	4	5
Nasıl Ahmet ne zaman ıslandığını söyledi?	1	2	3	4	5
Ahmet ıslandığını nasıl ne zaman söyledi?	1	2	3	4	5
Ne zaman Ahmet nasıl ıslandığını söyledi?	1	2	3	4	5
Ne zaman nasıl ıslandığını Ahmet söyledi?	1	2	3	4	5

Out of the 30 questions provided, half of them were experimental questions and half of them were fillers. What differentiated experimental questions from fillers was that it was impossible to consider the first wh-phrase of the alternative questions as having been extracted from the matrix clause in the fillers. For instance, neither of the underlined phrases in the 2nd sentence of the task “Ali akşam yemeği için bize geleceğini söyledi” ‘Ali said that he would stop by us for dinner’ cannot be interpreted as referring to the predicate of the main clause; both akşam yemeği için (for dinner) and bize (to us) modify the predicate of the embedded verb gel- ‘to come’. That is why wh-phrases related to these adverbs in the alternative questions below the sentence cannot have crossed over another wh-form related to the complement clause.

On the other hand, looking at an experimental question such as the 1st sentence of the task “Kaan yarın gizlice kaçtığını itiraf edecek.” (roughly translated as ‘Kaan will admit that he secretly fled away tomorrow.’) we can see that the first adverb of the underlined phrase (i.e. yarın) cannot refer to the predicate of the embedded clause as it is an expression associated with the future, but the verbal morphology on the embedded verb (-dIk) disallows future interpretation (Kural, 1997). That is why among the alternative questions, the one with the wh-question

ne zaman ‘when’ having (linearly) moved over the other wh-phrase referring to the embedded clause *nasıl* ‘how’ i.e. “Kaan ne zaman nasıl kaçtığını itiraf edecek?” (When will Kaan admit how he fled away?) is expected to be found highly appropriate by the participants. The other alternative “Ne zaman Kaan nasıl kaçtığını itiraf edecek?” in which the wh-phrase *ne zaman* ‘when’ was positioned in the sentence-initial slot.

If this prediction is confirmed, the learners’ judgments will indicate that a wh-phrase addressing the matrix clause is allowed to linearly cross over another wh-phrase referring to the complement clause of the sentence. In short, this will provide evidence for the acceptability of questions as in 2.b.

3.4.2.2. Procedure

Before the questionnaire was administered, four research assistants and an instructor working at METU, Department of Foreign Language Education participated in a pilot study. Several changes were made in the instruction and content of the test because it was observed that a couple of these participants ranked the alternative questions from 1 to 5 in all the 30 sentences, rather than rating each question in its own right. That is why the instruction was made as clear as possible and it was also followed by an example. Furthermore, some sentences were found vague by these participants, so these were replaced with simple and comprehensible sentences.

As for the administration of the test to the actual participants, the administrator firstly read the instruction loudly and asked the participants to pay attention to the sample question. After the participants’ questions as regards the procedure of the test were answered, the administrator initiated the task. It took the participants approximately 30 minutes to complete the test.

Upon evaluating the questions in the task, the participants were asked to read and sign the consent form on the last page of the test. They were also offered

to note down the contact information given in case they should ask anything about the questionnaire they participated in.

3.5. Experiment 4: An Offline Questionnaire in Turkish

An experiment on the mental processing of the forms exemplified in 1.b. and 2.b. (to be repeated below) by L1 learners was imperative in order to find out the following:

- whether Turkish learners of English treat structures like 1.b. as ambiguous questions and they transfer their attachment preferences in such questions (interpretations) into the way they process such ambiguous questions in English as 1.a. and
- whether they treat questions like 2.b. as unambiguous forms (i.e. whether medial wh-phrases in Turkish constitute an island making long- distance interpretation impossible).

23.a. Çocuk ne zaman cezalandırıldığını söyledi?

Boy when punish + Pass.+ Nom-3 + Poss. + Acc said

‘When did the boy say that he was punished?’

b. Çocuk cezalandırıldığını ne zaman söyledi?

Boy punish + Pass.+ Nom-3 + Poss. + Acc when said

‘When did the boy say that he was punished?’

c. Çocuk ne zamanı nasıl cezalandırıldığını söyledi?

Boy when how punish + Pass.+ Nom-3 + Poss. + Acc said

‘When did the boy say how he was punished?’

This experiment could show whether there is an L1 transfer in terms of the acquisition and processing of wh-questions.

3.5.1. Participants

30 native speakers of Turkish were employed for this study. 16 of them had at least Bachelor’s degree and the rest of the participants were undergraduate students. Their ages ranged from 18 to 27; the average age of the participants was

22,4 (SD: 2,4). None of them received education in syntax. Twenty-one of them were engineers or engineer-to-be students and the rest of them study or studied at economics and administrative sciences.

3.5.2. Data Collection

3.5.2.1. Instruments

The Reading Comprehension Task used in Experiment 1 was translated into Turkish and utilized in this study. Accordingly, this task form also included biographical data form and experimental questions.

The types of questions to be investigated can be translated into Turkish in two different configurations: in the canonical word-order and scrambled version. Because the goal of the study is to examine whether scrambling in L1 might have any effect on the acquisition and processing in L2, the questions were not translated into Turkish in the canonical word orders.

During the process of translation, two criteria put forward by Dörnyei (2010) were taken into consideration:

- the need to produce a close translation of the original text so that we can claim that the two versions are equivalent, and
- the need to produce natural-sounding texts in the target language, similar to the words people would actually say (p. 51).

As a result of this, some changes were made in the content of the texts to make them seem more suitable and genuine. Furthermore, to ensure the equivalence of both versions of the questionnaire, the text translated into Turkish was back-translated by another graduate student. A professional translator was consulted in the course of translation.

A sample text and questions related to it is presented below (for the questionnaire, see Appendix E):

Geçen hafta evde oğlumla otururken, ona doğumundan önce hayatımdaki en komik olaylardan birine şahit olduğumu söyledim. Ne yazık ki, ödevlerinden dolayı bunu

dinleyecek vakti yoktu, ben de daha sonra okuyup öğrenir diye odasına bıraktığım notta olayı anlattım:

“Sen doğmadan önce, babanla beraber bir hastanede uygulamalı doğum derslerine katılmıştık. Bir gün yeni doğan servisini geziyorduk. Görevli, burada kalışımızın son gününde, ikimiz için veda yemeği verileceğini söyleyip menüde neler olacağını ilettiler. Daha sonra dolaşmaya devam ettik, bu sırada eşime her geçen dakika daha fazla heyecanlandığımı fısıldadım. Başını sallayıp sessizce cevap verdi: ‘Asıl ben heyecanlıyım, doğumdan hemen sonra keyifle balık sipariş edeceğim’”

S1: Kadın ne zaman hayatındaki en komik olaylardan birine şahit olduğunu söyledi?

A: Geçen hafta

B: Oğlunun doğumundan önce

S2: Kadın neden oğlunun kendisini dinleyemeyeceğini düşündü?

A: Çocuk sıkıldığı için

B: Çocuğun ödevleri olduğundan

S3: Kadın ne zaman uygulamalı doğum derslerine katıldıklarını söyledi?

A: Oğlunun doğumundan önce

B: Oğlunun doğumundan sonra

S4: Eşi nasıl ne zaman balık sipariş edeceğini söyledi?

A: Keyifle

B: Sessizce

3.5.2.2. Procedure

A pilot study was conducted before the Turkish Offline Test was administered to the actual participants. The piloting resulted in a few alterations on the text to make it sound more natural in parallel with the comments of five participants who volunteered to take the test.

The participants were instructed to read the paragraphs just like reading a newspaper (in a quick and careful fashion) and answer the relevant questions by choosing the more appropriate option of the two alternatives offered. The subjects handed in the questionnaire in twenty to twenty-five minutes. At the end of the administration, they were asked to read and sign the consent form.

3.6. Data Analysis

I made use of the methods of descriptive statistics (mean, standard deviation and the like) and inferential statistics (such as independent- samples t-tests, repeated measures of ANOVA) not only to measure the performance of participants in the experiments conducted in this thesis and to check whether these results are statistically meaningful or not. Statistical Package for the Social Sciences (SPSS) 20.0. was utilized to process data and to check the significance of the results that are presented in the next chapter.

CHAPTER 4

RESULTS AND DISCUSSION

In this chapter, I report the performance of the participants in the experiments conducted to collect data. Statistical results comprise both descriptive and inferential information revealing whether the results can be generalized to a larger population. I then discuss the results in terms of the research questions and their contribution to the mentioned debates.

4.1. Experiment 1: An Offline Questionnaire in English

This experiment (the Reading Comprehension Task) was conducted to test Turkish learners' sensitivity to island constraints in English and to investigate whether there are any similarities between the way L1 speakers and L2 learners process the relevant structures. The experiment consisted of ten ambiguous bi-clausal questions (e.g. 'When did the woman say that she witnessed one of the funniest things ever? '), ten unambiguous bi-clausal questions – questions containing an embedded wh-island (e.g. How did the husband say when he would order fish?) and twenty filler questions; forty questions in total. Three groups of participants were employed for the study; intermediate L2ers, advanced L2ers and native controls.

4.1.1. Analysis of Unambiguous Questions

As it is impossible to assign a long-distance interpretation to unambiguous questions, answers that correspond to the short-distance extraction of the wh-

phrases were regarded as accurate answers. Table 1 below shows that native speakers were the most accurate group whereas the intermediate learners displayed the poorest performance.

Table 1: Mean Response Rates to Unambiguous Questions

Participants	Total Grammatical Answers	Total Ungrammatical Answers	Accuracy Rates
Intermediate L2ers	164 /300	136/300	54,6 % SD:10,7
Advanced L2ers	229/ 300	71/300	76,3 % SD:11,3
Native Controls	293 /300	7/300	97,6% SD:4,3

As the score of none of the participants in any of the groups was 2.5 below or above the standard deviation, all the responses were taken into account.

Further analyses showed that the groups' performances differed significantly from each other; a one-way ANOVA was run, which indicated that L2 proficiency appeared to have a remarkable effect on the participants' judgments ($F(2,87) = 134.354$, $p < .0001$). Independent-samples t-tests also indicated that there was a significant difference between the accuracy rates of each group. Advanced learners displayed a significantly higher performance than intermediate learners ($t(1,58) = 6.955$, $p < .0001$), whereas native controls outperformed both L2 groups (native control vs. advanced learners: $t(1,58) = 13,604$, $p < .0001$; native control vs. intermediate learners: $t(1,58) = 21,639$, $p < .0001$).

Furthermore, one-sample t-tests revealed that judgments of native speakers and advanced learners were significantly different from 50% chance performance (native speakers: $t(1,59) = 257.71$, $p < .0001$, advanced learners: $t(1,59) = 115.33$,

$p < .0001$). However, the mean accuracy rates for intermediate learners' did not show a significant difference from 50% chance performance ($t(1,58) = 2,379$, $p = 121$).

As for the internal consistency of the subjects' performance, which is roughly 75% accuracy according to Clark and Barron (1988), I assumed that any participant who answered 7 out of 10 unambiguous questions correctly turned out to be consistent in this study. All the native controls and 24 of the advanced learners (80%) were internally consistent in this sense, but only 6 of the intermediate learners were able to meet this criterion.

The results showed that second language learners are sensitive to island constraints but not at the initial states of the language acquisition process. The proponents of the Full Transfer Full Access Hypothesis claim that the entire L1 grammar intervenes at the initial states (Schwartz & Sprouse, 1994) but learners are not stuck with the L1 based representations (White, 2003). In line with this hypothesis, the findings obtained from this study make it possible to argue that access to UG is possible during the process of second language acquisition, although this process seems to be constrained by learners' proficiency level. This is evidenced by the fact that advanced learners in this study were remarkably better at disallowing long-distance interpretations for unambiguous questions.

However, despite the fact that learners' knowledge of island constraints improves with their proficiency levels, neither of the L2 groups' performance matched native speakers' intuitions. This does not contradict the predictions of Full Transfer Full Access Hypothesis, either. White (2007) emphasizes that the acquisition of UG constraints must be distinguished from achieving the same grammar as a native speaker. Even if an L2er's performance lags behind that of a native speaker in the relevant domain, the presence of UG-constrained representations in second language learners in a consistent manner is sufficient to claim access to UG in that domain. In this study, this was exemplified in the performance of advanced learners of English.

To sum up, the overall results obtained in the analysis of the unambiguous questions of the Reading Comprehension Task corroborated the predictions of the Full Transfer Full Access Hypothesis, and thus provided a positive answer to the first research question of this thesis, namely: second language learners have access to UG in the process of SLA.

4.1.2. Analysis of Ambiguous Questions

As mentioned above, the test also included ten ambiguous bi-clausal wh-questions, in which the fronted wh-phrase could be construed with both matrix and embedded predicates. As can be seen in Table 2, native speakers and advanced L2 learners mostly interpreted the wh-phrase in such questions to be extracted from the local (matrix) position, rather than from the embedded clause. By contrast, intermediate learners' mean short-distance response rate to ambiguous questions was quite close to that of their long-distance preferences; they seem to have chosen both local and long-distance extraction to approximately the same extent.

Table 2: Mean Response Rates To Ambiguous Questions

Participants	Total Answers with SD* Interpretation	Total Answers with LD* Interpretation	Mean SD Preference
Intermediate L2ers	148/300	152/300	49,3 % SD:15,29
Advanced L2ers	207/ 300	93/300	69 % SD: 12,41
Native Controls	215/300	85/300	71,6% SD: 7,16
SD: Short-Distance		LD: Long-Distance	

As a precondition for the comparison of L2 learners' parsing strategies in ambiguous questions with those of native speakers, I firstly analyzed native speakers' linguistic behavior towards these structures. A paired-samples t-test showed that native speakers' short-distance interpretation of ambiguous questions outnumbered long-distance interpretation and this difference was statistically

significant ($t(29) = 10,933$, $p < .0001$). By means of a one-sample t-test, it was also revealed that native speakers preferred short-distance interpretation for the relevant type of questions above 50% chance performance ($t(1,58) = 9,748$, $p < .0001$). The frequency of L2 learners' short-distance interpretation in ambiguous bi-clausal questions was then compared to the native speakers' preferences.

Similarly to native speakers, advanced learners also preferred short-distance interpretation (69%) more than long-distance interpretation in ambiguous questions (31%) and this difference was statistically significant ($t(29) = 8,382$, $p < .0001$). Moreover, the mean short-distance interpretation was shown to be significantly higher than 50% chance performance through a one-sample t-test ($t(1,58) = 16,784$, $p < .0001$).

As a result of a paired-samples t-test, it was seen that there was no significant difference between intermediate learners' mean preferences for short-distance and long-distance interpretation of ambiguous questions ($t(29) = -239$, $p = .813$). Their performance was not above chance level, either ($t(29) = -206$, $p = .811$).

In order to compare the frequency with which participants preferred short-distance interpretation for ambiguous questions, a one-way ANOVA was run. This analysis revealed a significant main effect of proficiency on the way participants interpret the abovementioned ambiguous questions ($F(2,87) = 54.898$, $p < .0001$). When the two L2 groups were compared by means of an independent-samples t-test, it was seen that advanced learners made significantly more short-distance interpretations for ambiguous questions than intermediate learners did ($t(1,58) = 40,859$, $p < .0001$). Statistically significant difference was found between the short-distance answers given by native speakers and intermediate learners, as well ($t(1,58) = 12,911$, $p < .0001$). On the other hand, the slight difference between the short-distance preferences of native speakers (71,6%) and advanced learners (69%) was not statistically significant ($t(1,58) = -1,025$, $p = .310$).

One of the research questions in the thesis is whether the same parsing routines are employed by native speakers and second language learners. Two competing hypotheses were raised with respect to the nature of Universal Parser in a second language: the first one was the Continuity Hypothesis, which claims that second language learners make use of the same parsing routines in a second language as native speakers do since the language faculty contains a Universal Parser which is as accessible as Universal Grammar to second language learners. The other one was the Shallow Structure Hypothesis, which argues that learners cannot make use of structure-based parsing strategies in a second language.

The results show that native speakers prefer resolving the relevant ambiguities through short-distance interpretation. If such an ambiguity resolution strategy is available in the way second language learners' parse these structures, we can claim that these learners process the ambiguous forms by means of the same mechanisms (Marinis et al., 2003). As to the performance of the second language learners, it was seen that advanced learners show preferences similar to those of native speakers as regards the ambiguity resolution process. This is taken as an indication that the parsing strategies employed by advanced learners are not distinct from those employed by native speakers. Intermediate learners; however, do not seem to have an apparent preference for the interpretation of ambiguous questions. By parity of reasoning, then, intermediate learners seem to parse ambiguous questions in a manner radically different than native speakers.

Therefore, the way L2ers employ parsing routines to resolve ambiguities seems to follow a developmental pattern similar to the one that was established in learners' performances on unambiguous questions. This parallelism entailed the analysis of these results in comparison with the participants' performance on the unambiguous questions, for which they were supposed to make use of knowledge of island constraints (competence) in the following section.

4.1.3. Correlation among Subjects' Performance in Ambiguous and Unambiguous Questions

To test whether the parsing strategies the learners make use of (as evidenced by their responses to ambiguous questions) affect their judgments (competence) in unambiguous questions and vice versa, Pearson Correlations were run to check whether there is a correlation between participants' answers to ambiguous and unambiguous questions.

There was a significant correlation between the frequency of short-distance answers given by native speakers to ambiguous and unambiguous questions at the 0.01 level.

The correlation between the frequency of short-distance answers given by advanced learners to ambiguous and unambiguous questions was also significant at the 0.01 level.

Significant correlation at the 0.05 level was identified in the short-distance choice of intermediate learners to answer ambiguous and unambiguous questions.

Fodor's notable Acquisition Paradox Hypothesis (1988, 1989) argues that there is a close relationship between acquisition and processing; development or deficiency in either of them may produce similar results in the other. This study provides evidence for the validity of this hypothesis in second language acquisition. There was a positive correlation in the performance of participants on the interpretation of ambiguous and unambiguous forms. Since the former could be taken to reveal the parsing strategies learners use for ambiguity resolution (if any) and the latter has to do with the knowledge of island constraints (again, if any), any correlation might signal the relationship between parsing strategies and structural knowledge; hence, the relationship between acquisition and processing in second language acquisition. Namely, advanced learners' sensitivity to island constraints (awareness of the fact that short-distance interpretation is the only option in unambiguous questions) may result in developing a similar strategy in

parsing ambiguous questions (short-distance preference, which was observed in the native speakers' performance), as predicted by Fodor (1988, 1989).

Intermediate learners, who did not show any sensitivity to island constraints in unambiguous questions, which indicates the lack of competence, did not exhibit any preference in ambiguity resolution, either. It is, therefore, possible to argue that a developmental pattern might be affecting the availability of Universal Parser in the same way in which it affects the accessibility of Universal Grammar.

4.2. Experiment 2: An Online Questionnaire in English

A reaction time study was conducted to investigate whether the presence versus the absence of ambiguity in bi-clausal wh-questions plays a role in how second language learners process these questions in real time and whether they interpret these types of questions in a way similar to the one observed in the Reading Comprehension Task (offline experiment). The study was also to shed light onto whether second language learners of English employ the same parsing strategies as native speakers do in real time. If so, it was expected that second language learners would display behavior similar to that of native speakers while processing critical points in bi-clausal wh-questions. The online experiment included forty questions; ten of them were ambiguous and ten of them were unambiguous, the rest were filler questions. The participants that took part in the offline experiment were also employed in the online questionnaire.

4.2.1. Analysis of the Participants' Responses

As all the questions were followed by two possible answers, this online test revealed additional offline results as well. The participants' choice of answers indicated whether they treated the fronted wh-phrase as coming from the matrix or from the embedded clause. In other words, these data showed whether the participants are sensitive to island constraints on wh-movement, as well as whether

they preferred local or long-distance wh-movement in questions that did not involve an island.

In the native speakers group, a paired-samples t-test showed no significant difference between the interpretation of unambiguous questions of this experiment (88,3% local extraction) and that of the Reading Comprehension Task (91% local extraction) ($t(29) = -854$, $p = .612$). Moreover, in this experiment, as well as in the Reading Comprehension Task, native speakers interpreted ambiguous questions as involving local wh-movement (71,6%) with no significant difference ($t(29) = -168$, $p = .364$).

Similarly, advanced learners' performance in the two experiments was found not to be significantly different either in unambiguous, or in ambiguous questions. Although these participants were slightly less accurate in unambiguous questions in the real-time study (70,3%) than the offline questionnaire (76,3%), this difference was not statistically significant ($t(29) = ,162$, $p = .281$). Likewise, advanced learners preferred short-distance interpretation for more ambiguous questions of the online task (74,6%) compared to the offline questionnaire (69%), but this difference was not statistically significant, either ($t(29) = ,267$, $p = .237$).

Intermediate learners' responses to the questions in the online task were also compared to their offline performance (the Reading Comprehension Task). Like their more advanced counterparts, members of this group were less accurate in unambiguous online questions (47,3%) compared to the ones in the offline test (54,6%), but this difference was not significant according to the t-test ($t(29) = ,259$, $p = .154$). There was, however, a significant difference between intermediate learners' interpretation of ambiguous questions in the online task and offline questionnaire in that they tended to construe the fronted wh-phrase locally more in the former (59,6%) than in the latter (49,3%) ($t(29) = 8,762$, $p = .04$) but this performance was not significantly above 50% chance level ($t(1,58) = -306$, $p = .46$). Overall, for questions involving wh-islands, it is possible to say that members

of each group showed a similar performance in both tests even though they were slightly less accurate in the online questionnaire.

The participants' answers to a question after they had heard or read the whole sentence yielded additional offline data. The results and the comparison of these results to the findings obtained in the Reading Comprehension Task confirmed the hypotheses presented in 4.1.3.above. That is, the results of the online experiment confirmed that there is a developmental pattern in the second language acquisition of island constraints; more proficient L2ers are better at interpreting questions involving islands than their less proficient counterparts. Secondly, there is a correlation between the acquisition and processing of long-distance wh-movement; learners' interpretation of unambiguous questions bears resemblance to their preference of ambiguity resolution. Also, even though advanced learners appear to display native-like performance in certain aspects; overall native-like competence does not seem to be an attainable goal.

4.2.2. Analysis of the Processing of Unambiguous Questions

As shown in the Methodology chapter, each question - ambiguous, unambiguous or filler questions – contained 9 regions. The experiment was designed to measure the time that it takes the participant to process each of the regions. An example is repeated below:

Sentence: Hearing that he failed, my friend disappointedly told me that he would challenge the result properly when he met the instructor.

Reg.1 Reg.2 Reg.3 Reg.4 Reg.5 Reg.6 Reg.7 Reg.8 Reg.9

Question: How + did + my friend + say + when + he + would + challenge + the results?

- A.) Properly
- B.) Disappointedly

Region 5 (that or wh-medial) was the critical point in both ambiguous and unambiguous questions. In the unambiguous questions, this was the region which resolves the ambiguity, while in ambiguous questions, with no medial wh-phrase, it was the starting point of permanent ambiguity. In order to analyze learners' sensitivity to islands and ambiguities in bi-clausal questions, the participants' average reaction times to the regions preceding the critical region (regions 1 to 4) were compared with the average reaction times to regions following it (regions 6 to 9). This procedure was applied in the analysis of the processing of ambiguous questions, as well.

Table 3 and 4 display participants' mean reaction times to all the regions in unambiguous questions.

Table 3: Mean Reaction Times to the Regions of Unambiguous Questions (in milliseconds)

Participants	R1	R2	R3	R4	R5	R6	R7	R8	R9	TOTAL
Intermediate	855	844	728	702	790	863	771	698	859	7110
Advanced	585	538	548	639	572	504	436	518	674	5014
Native	411	459	485	493	591	408	376	312	305	3840

Table 4: Mean Reaction Times to the First 4 Regions (Per Region) + Wh-medial + the Final 4 Regions (Per Region)

Participants	Regions 1-4	Wh-medial	Regions 6-9
Intermediate	782	790	798
Advanced	578	572	533
Native	462	591	350

As the tables show, native speakers overall react faster to the last four regions (350 ms.) than to the first four regions (462 ms.). Moreover, a paired-samples t-test revealed that there was a significant difference between the processing times of these regions ($t(29) = 5.694$, $p < .0001$). The disambiguating region (region 5) appeared to have an accelerative effect on the native speakers' processing of the relevant questions. Likewise, advanced learners' reactions to the

regions after the disambiguating region (533 ms.) were significantly shorter than to those preceding the critical point (578 ms.) ($t(29) = 2,182, p = .037$). By contrast, intermediate learners processed both initial and final regions of the unambiguous questions with nearly the same reading span (782 ms. vs. 798 ms.). The difference between these times was not statistically significant ($t(29) = -.917, p = .367$).

4.2.3. Analysis of the Processing of Ambiguous Questions

Table 5 and 6 displays participants' mean reaction times to the regions which constitute the ambiguous questions of the task.

Table 5: Mean Reaction Times to the Regions of Ambiguous Questions (in milliseconds)

Participants	R1	R2	R3	R4	R5	R6	R7	R8	R9	TOTAL
Intermediate	812	789	653	698	740	811	694	678	793	6668
Advanced	644	601	569	573	578	591	554	563	648	5523
Native	452	387	456	389	556	590	678	661	702	4871

Table 6: Mean Reaction Times to the First 4 Regions (Per Region)+ that + the Final 4 Regions (Per Region)

	Regions 1-4	That	Regions 6-9
Intermediate	738	740	744
Advanced	597	578	589
Native	421	556	658

Statistical analyses through the paired-samples t-tests showed that in ambiguous questions, native speakers were significantly slower after the fifth, critical region (which contained the declarative complementizer *that*). This indicates that the complementizer increased the ambiguity of the sentence, which resulted in the increase in the reading times ($t(29) = 9,729, p < .0001$). Conversely, there were no significant differences between advanced and intermediate learners' reading spans of the regions before and after Region 5 (advanced learners: $t(29) = .255, p = .81$; intermediate learners: $t(29) = -.222, p = .826$).

4.2.4. Comparison between Subjects' Mean Response Times to Ambiguous and Unambiguous Questions

Further analysis was conducted to test whether there was significant difference between the participants' response times to the regions after the critical points (5th regions comprising 'wh-medial' or 'that') in both ambiguous and unambiguous questions. Therefore, mean reading spans of the subjects for the regions 6 to 9 in unambiguous questions were compared to their responses to the same regions (the final four regions) in ambiguous questions.

A paired-samples t-test showed that native speakers were significantly faster after the disambiguating 'wh-medial' located in the fifth region than after the complementizer 'that' ($t(29) = 16,555$, $p < .0001$). The difference between advanced learners' reaction times to the final four regions in ambiguous and unambiguous questions was not statistically significant ($t(29) = .727$, $p = .473$). Finally, contrary to the performance of native speakers, intermediate learners turned out to be faster at reading the final four regions in ambiguous questions (744 ms.) than in unambiguous questions (798 ms.). This difference was statistically significant ($t(29) = 2,852$, $p = .008$).

The results obtained from the Online Experiment provided evidence that in real time, the subjects show differential sensitivity to islands, just as was the case in the offline test, namely the Reading Comprehension Task.

As stated before, ambiguity and ungrammaticality cause latency in parsing, whereas grammaticality and ambiguity resolution make the processing of the structures faster. Since advanced learners are aware of the islands (signaled by wh-medials, which also resolved the ambiguity in the construal of the fronted wh-phrase), they processed these structures faster than they did ambiguous questions (with no wh-medials), in which the ambiguity persisted until the end. This behavior was similar to that of native speakers. The similarity between the behavior of advanced learners and the behavior of native speakers was observed

not only in the comparison of the reaction times to the relevant regions of unambiguous questions, i.e. before and after the critical region (region 5 being the wh-medial) but also in the comparison of reaction times to ambiguous and unambiguous forms after the critical region (region 5 involving *that* or wh-medials).

However, compared to the advanced learners and native speakers, there was a disassociation in the reactions of intermediate learners to ambiguous and unambiguous structures. For this group, the critical region (wh-medial), which disambiguated bi-clausal structures, did not enable participants to process unambiguous questions any faster than they did ambiguous questions. By contrast, they were actually slower in unambiguous questions, which involved wh-medial. This finding needs a deeper analysis to account for but it is possible to argue that this may be caused by the misanalysis of the unambiguous questions (processing of two wh-forms without the necessary knowledge of the constraints).

By and large, the findings obtained from this experiment indicate a relationship between the processing and acquisition of linguistic structures as L2ers were observed to follow the same developmental pattern in both offline and online processing of ambiguous and unambiguous wh-questions.

4.3. Experiment 3: A Grammaticality Judgment Task in Turkish

The ultimate goal of this study is to determine whether or not Turkish L2 learners of English had access to UG. This question was investigated by examining their knowledge of syntactic islands, a phenomenon which does not exist in Turkish, given the absence of wh-movement in the language. However, since Turkish has scrambling, it was important to verify whether wh-scrambling in Turkish is sensitive to islands or not. If it is, it is plausible that L2ers' knowledge of island constraints is transferred into English from Turkish scrambling.

Before analyzing the properties of the equivalents of the above-mentioned wh-questions in Turkish, it was essential that a grammaticality judgment task be

administered in order to make sure that a wh-phrase relating to the matrix clause could linearly cross over another wh-phrase referring to the embedded clause. Thirty native speakers of Turkish participated in the task in which they were asked to rate the questions presented with reference to the sentences relevant sentences from 1 meaning the best choice to 5 meaning the worst alternative.

4.3.1. Analysis of the Participants' Judgments

In this task, three types of questions were analyzed and compared. One of them was based on the canonical structure of the questions in Turkish and the other types of questions were formed through the scrambled wh-words as explained above with one difference: one of them took a sentence-initial slot and the other one was positioned between the subject of the matrix clause and the wh-question related to the embedded clause. For instance, in the first experimental question of the grammaticality judgment task, first alternative included a wh-phrase relating to the matrix clause and it crossed over another wh-phrase corresponding to the embedded clause and it came after the subject of the main clause. The second alternative included a scrambled wh-phrase referring to the embedded clause and taking a sentence-initial slot. If (any of) these scrambled structures are found as acceptable as the fifth alternative in this example, which was formed in accordance with the canonical structure of Turkish, this will provide evidence for the grammaticality of the structures to be investigated in the following experiment.

1. Kaan yarın gizlice kaçtığıını itiraf edecek.

Kaan ne zaman nasıl kaçtığıını itiraf edecek?	1	2	3	4	5
Ne zaman Kaan nasıl kaçtığıını itiraf edecek?	1	2	3	4	5
Nasıl Kaan ne zaman kaçtığıını itiraf edecek?	1	2	3	4	5
Kaan nasıl ne zaman kaçtığıını itiraf edecek?	1	2	3	4	5
Kaan nasıl kaçtığıını ne zaman itiraf edecek?	1	2	3	4	5

Table 7 summarizes how participants evaluated the canonical questions and scrambled questions.

Table 7: Mean Grammaticality Rates of Canonical and Scrambled Questions

Question Type	Total Points Rated	Mean Grammaticality Rates
Canonical Questions	738 / 450	1,64
Scrambled Questions (following the subject of the matrix clause)	774 / 450	1,72
Scrambled Questions (taking a sentence- initial slot)	1283 / 450	2,85

The results showed that participants found scrambled wh-questions preceding the wh-question of the matrix clause and following the subject of the matrix clause ‘Kaan ne zaman nasıl kaçtığını itiraf edecek?’ grammatical even though there was a slight difference between the ratings given to the canonical questions and these structures (1,64 vs. 1,72). This difference did not turn out to be statistically significant when an independent-samples t-test was applied ($t(1,28) = -4,179$, $p = .648$). However, the scrambled questions were found less acceptable by the participants and there was a significant difference between the ratings given to these structures and canonical questions ($t(1,28) = 61,812$, $p < .0001$).

This finding confirmed that a matrix clause wh-phrase can scramble from a position following the embedded clause (and immediately preceding the matrix verb) to a position immediately preceding the embedded clause. This finding enabled me to test whether scrambling in Turkish is sensitive to islands. If it is, i.e. if extraction of a wh-phrase out of an embedded question is not allowed in Turkish, then when presented with the sentence in (22), native speakers of Turkish will be able to assign at least one grammatical structure to it, namely the one in

(23), and construe the scrambled wh-phrase with the matrix predicate (as indicated in the translation):

22. Kaan ne zaman nasıl kaçtığını itiraf etti?

‘When did Kaan confess how he escaped?’

23. Kaan ne zaman nasıl kaçtığını *t_i* itiraf etti?

If the results of the grammaticality judgment task had turned out differently, then sentences like the one in (22) would simply be ungrammatical, thus preventing us from testing whether scrambling in Turkish is or is not sensitive to islands. This, in turn, was necessary in order to determine whether the participants’ knowledge of syntactic islands in English may have been transferred from Turkish.

4.4. Experiment 4: An Offline Questionnaire in Turkish

This experiment was conducted to investigate whether the embedded wh-forms in the scrambled questions with a wh-medial, which were judged as grammatical in the former task, constitute islands in Turkish, thus making a long-distance interpretation impossible.

In order to conduct the experiment, the Reading Comprehension Task was translated into Turkish. Learners were presented with- ten scrambled ambiguous questions with no wh-medial such as “Ahmet ne zaman geldiğini söyledi?”, as well as with ten putatively unambiguous questions such as ‘Kaan nerede niçin klasik müzik çaldığını söyledi?’. The remaining twenty questions were fillers. The goal was to test whether learners process scrambled ambiguous forms in Turkish in the same way that they process ambiguous bi-clausal wh-questions in English. If they do, then it is plausible to speculate that their competence in island constraints in English comes from their competence in Turkish.

4.4.1. Analysis of the Questions with a Wh-medial

Subjects preferred to interpret questions with a wh-medial to have originated in the matrix clause in 53,5 % of their answers (182/340). In 46,5 % of the answers (158/340), wh-forms were interpreted as referring to the embedded predicate. A paired-samples t-test revealed that this difference was not statistically significant ($t(33) = -1,937$, $p = .892$). Furthermore, two one-samples t-tests indicated that neither short-distance nor long-distance interpretation was significantly different from 50% chance performance (short-distance vs. 50% ($t, 66) = -5,912$, $p = .842$, long-distance vs. 50% ($t, 66) = -4,783$, $p = .830$).

The results showed that island constraints are not operative in scrambled wh-questions in Turkish, so, Turkish learners cannot have transferred their knowledge of island constraints from their native language. Given that island constraints are not transferred from Turkish and that there is no positive evidence in the L2 input from which ungrammaticality of island violations could have been inferred by L2ers, we are left with the conclusion that the L2ers' knowledge of island constraints must have a different source. Access to UG is a plausible explanation.

These findings, however, can account for the fact that intermediate subjects, who are at the earlier states of second language acquisition than advanced subjects, were indecisive (at the chance level) in their interpretation of bi-clausal questions in both the Reading Comprehension Task and the Online Experiment, just as was the case with the native speakers of Turkish, who did not prefer either of the possible analyses (short- versus long-distance extraction). This similarity is in line with the Full Transfer Full Access Hypothesis, which claims that the initial state of the target grammar of second language learners is the final state of the grammar of their native language (Schwartz, Sprouse, 1994). As there is a clear difference between the findings of this test and the performance of advanced

learners in the Reading Comprehension Task and the Online Experiment, we can also argue that the FTFA Hypothesis is correct in terms of the claim that there is gradual restructuring of the mental grammar during the course of second language acquisition.

4.4.2. Analysis of the Questions without a Wh-medial

In questions that did not contain a medial wh-phrase, the results showed that participants preferred long-distance interpretation more frequently (58,5%) than short-distance interpretation (41,5%). This difference was statistically significant according to a paired-samples t-test ($t(33) = 9,476, p < .0001$).

To determine whether native speakers of Turkish and English employ the same processing strategies in their mother tongues, an independent-samples t-test was applied to compare the mean short-distance responses of native speakers of Turkish (41,5%) and English (71,6%) obtained by means of Experiment I and IV. The analysis indicated that there was a significant difference between the mean short-distance answers of these two groups, i.e. that the English speakers tend to construe the fronted wh-phrase locally significantly more than the Turkish speakers do.

To check whether there was any convergence between the Turkish participants' responses to ambiguous questions in their L1 and L2, which could imply the transfer of processing strategies, mean short-distance responses of Turkish participants to the ambiguous questions in the two languages were compared. Since the Turkish participants in the Reading Comprehension Task were divided into two groups, based on their proficiency level, two comparisons were made. Advanced L2ers of English gave short-distance responses to ambiguous questions in English more frequently (69%) than the native speakers of Turkish who took the Turkish test (41,5%) at a statistically significant level ($t(1,62) = 13,385, p < .0001$). However, there was no significant difference between the mean short-distance responses of intermediate learners in the Reading

Comprehension Task (49,3%) and those of native speakers who participated in the Experiment IV (41,5 %) ($t(1,62) = -.845, p = .137$). This was another remarkable difference between the performance of advanced learners and intermediate learners of English.

These results showed that native speakers of Turkish and English employ different ambiguity resolution strategies; even though the Turkish Offline test was a translated version of the Reading Comprehension Task, subjects interpreted the ambiguous questions differently.

The difference in the ambiguity resolution strategies employed in Turkish (more frequent long-distance interpretations) and in advanced L2 English (more frequent short-distance interpretations), suggests that no transfer of ambiguity resolution strategies from Turkish to English can be posited at more advanced levels of English proficiency. However, a possible transfer of this sort at the initial stages of L2 acquisition could explain why intermediate learners deviate from native speakers and advanced learners of English in terms of their ambiguity resolution strategies in English. The results therefore suggest that ambiguity resolution strategies of L2 learners also gradually come to resemble those of native speakers as proficiency levels of L2ers increase.

To sum up, several important findings both in (second) language processing and second language acquisition have been obtained in this research. On the processing side, we have seen that native speakers of English and Turkish seem to employ radically different strategies in ambiguity resolution tasks: while English speakers prefer short-distance extractions, Turkish speakers prefer long-distance construals in bi-clausal wh-questions. Moreover, it was shown that, as their proficiency increases, L2 learners seem to gradually progress from their native language processing strategies to those of the target language.

On the SLA side, it was found that the knowledge that L2ers possess of the target grammar (in our case, the island constraints) is not a consequence of L1 transfer (since no island sensitivity was found in Turkish wh-scrambling), nor is it

the result of explicit instruction. Therefore, L2ers seem to have access to UG to guide their linguistic behavior in L2. However, given the differences that were found between intermediate and advanced learners of English both with respect to the knowledge of island constraints and with respect to the processing of bi-clausal ambiguous questions (those not involving an island), it seems that UG comes to shape the linguistic behavior of L2ers gradually, in parallel with the increase in their proficiency.

CHAPTER 5

CONCLUSION

5.1. Overall Conclusions

The main goal of this study was to test if Turkish learners of English were sensitive to island constraints, which were not instantiated in their native language and caused a learnability problem. In order to test this research question, an offline test called the Reading Comprehension Task was administered. The test consisted of ten ambiguous and ten unambiguous wh-questions. The main rationale behind the implementation of this test was that if the learners consistently drew the distinction between the wh-questions involving a wh-medial such as ‘When did the boy say how he was punished?’ (unambiguous) and those without a wh-medial such as ‘When did the boy say that he was punished?’ (ambiguous), this would indicate that they had knowledge of island constraints and this knowledge led them to assign different types of interpretations to these questions.

In addition to the Reading Comprehension Task, an online questionnaire which I named the Online Experiment, was administered to the same subjects following a short period of time. I made use of this test due to the expectation that the knowledge of island constraints would be reflected on the way subjects processed ambiguous and unambiguous questions in real time just as it is the case with native speakers. It is accepted by psycholinguists that, in comparison with the processing of grammatical and unambiguous forms, ambiguous and ungrammatical forms cause relatively longer reading times for native speakers due to an extended reanalysis period. Therefore, if Turkish learners of English had the knowledge of island constraints, it was expected that, in a self-paced reading task, after encountering the region containing the wh-medial, which resolves the

ambiguity (the disambiguating region), they would read the rest of the sentence with shorter reaction times, as was the case with native speakers. On the other hand, the region where the learners processed the head of the declarative embedded clause (*that*) was expected to increase the reading span for the rest of the question as a result of the assignment of two possible meanings to the question.

The second major purpose was to reveal whether sensitivity to islands showed a developmental pattern in parallel with the increase in the general proficiency of the learners in English. That is, it was predicted that more proficient learners of English would be better at making appropriate interpretations for the types of questions examined. Comparison of the highly-proficient subjects' performance with that of native speakers on the interpretation of the relevant types of questions would also shed light on the possibility of attaining the native-like competence.

The third objective of this thesis was to reveal whether there was a convergence between the way native speakers and second language learners of English process bi-clausal ambiguous questions. That is, the first thing to seek was the parsing strategies native speakers employed to resolve ambiguities while processing the questions. The second thing to do was to check whether second language learners' strategy for the ambiguity resolution resembled the native speakers' strategy. The results enabled me to test the validity of the Acquisition Paradox Hypothesis, postulated by Fodor (1988, 1989) for first language acquisition, in the process of second language acquisition. That is, the assumed mutual effect of the acquisition and processing was examined by means of the analysis of the learners' performance on the way they developed ambiguity resolution strategies and distinguished unambiguous questions from the ambiguous ones.

In order to investigate whether Turkish learners transfer the ambiguity resolution strategies they adopt in their native language to resolve ambiguities in English, a translated version of the Reading Comprehension Task was

administered to the native speakers of Turkish. It was found, however, that island constraints are not operative in Turkish (and therefore transfer cannot be involved in the way L2ers interpret unambiguous questions in English) and that native speakers of Turkish prefer long-distance interpretation of ambiguous questions in Turkish, which ruled out the possibility of transfer in the way L2ers process bi-clausal questions not involving islands.

It can be concluded from the overall results that second language learners are sensitive to island constraints, at least at the later stages of the second language acquisition process. Moreover, a developmental pattern is present in the sensitivity of second language learners to island constraints even if they do not have explicit knowledge about the relevant structure and they do not have a chance to benefit from the similarities between their native language and the target language.

The findings obtained from the experiments are in line with the basic tenets of the Full Transfer Full Access Hypothesis:

- (i) L1 transfer was evident at the initial stages as the intermediate learners exhibited similar linguistic behavior in Turkish and in English, and their errors were significantly less frequent in the performance of advanced learners,
- (ii) The restructuring of the mental grammar in L2 was obvious, given the significant difference between the performance of intermediate learners and advanced learners,
- (iii) Attaining native-like competence is not guaranteed even at the final (steady) states in a second language because of the significant differences between the performances of advanced learners and native speakers on the majority of tasks even though some convergences were observed.

As for the nature of second language processing, a developmental pattern associated with what was postulated by the Full Transfer Full Access Hypothesis and confirmed by this study emerged although this issue was not within the scope

of this thesis, according to the findings obtained in the Reading Comprehension Task and the Online Experiment. The Turkish Offline Questionnaire indicated that Turkish and English native speakers disambiguate the wh-questions with no wh-medial differently. The Turkish disambiguation pattern was also observed in the interpretations of intermediate learners in the Reading Comprehension Task and the Online Experiment (both testing their second language– English). However, advanced learners interpreted ambiguous wh-questions in English in a way similar to the performance of native speakers of English. Therefore, as Marinis (2003) stated, transfer of the processing strategies to a second language is probable. In addition, based on these findings, it can be hypothesized that gradual approximation to the native speakers' parsing strategies is within the bounds of possibility, which is in contrast with the Shallow Structure Hypothesis (Clahsen & Felser, 2006), which claims that L2 learners are not capable of being sensitive to syntactic cues in ambiguity resolution no matter how highly proficient they are.

5.2. Limitations of the Study

Some of the experiments, such as the Turkish Offline Questionnaire and the Online Experiment, which aim to reveal the strategies that native speakers and second language learners make use of to resolve ambiguities, have, to the best of my knowledge, not been conducted so far. This made it impossible to compare my results in these experiments with the results of other researchers, which could have increased the trustworthiness of the results that I obtained. Therefore, it would have been useful to test more subjects in these experiments, but, unfortunately, this was impossible due to the time constraints.

An online experiment in Turkish could have contributed to a clearer picture of the processing strategies that Turkish speakers employ in their native language. . I am planning to conduct such an experiment in the future, as a follow up study to this thesis.

Finally, acquisition and processing of the island constraints other than wh-islands, such as Factive Islands, or adjunct islands, may enable us to make more general inferences as to the nature of second language acquisition and processing.

KEY TERMS AND CONCEPTS

Adjunct: One way in which this term is used is to denote an optional constituent typically used to specify, e.g., the time, place or manner in which an event takes place.

Complement: This is a term used to denote a specific grammatical function (in the same way that the term subject denotes a specific grammatical function). A complement is an expression which is directly merged with (and hence is the sister of) a head word, thereby projecting the head into a larger structure of essentially the same kind.

Connectionism: An exemplar-based approach, meaning that learning occurs due to the examples we are exposed to in the input.

Covert Movement: In the Government and Binding framework, covert movement takes place from S-Structure to Logical Form (LF). In the Minimalist Program, covert movement is used to check weak features.

Extended Projection Principle (EPP): The proposal that every T constituent must be extended into a TP projection which has a specifier. In more recent work, the requirement for a T constituent like will to have a specifier is said to be a consequence of T carrying an EPP feature requiring it to project a specifier. The EPP Condition specifies that an uninterpretable EPP feature on a probe is deleted by movement of the closest active goal of the relevant type to become the specifier of the probe.

Interlanguage: A term coined in 1972 by Larry Selinker to describe the competence of L2 learners and the source of that competence.

Island Constraints: The restrictions on extractability of certain elements out of the structures they are located in.

Language Faculty: Chomsky argues that humans beings have an innate Language Faculty which provides them with an algorithm (i.e. set of procedures or program) for acquiring a grammar of their native language(s).

Learnability: A criterion of adequacy for linguistic theory. An adequate theory must explain how children come to learn the grammar of their native languages in such a short period of time, and hence must provide for grammars of languages which are easily learnable by children.

Logical Form (LF): An interface level, together with PF or Phonetic Form, D-Structure (Deep Structure), and S-Structure (Surface Structure). Logical form, as a level of syntactic representations, is subject to the principles of syntax, such as the Projection Principle and the Empty Category Principle.

Minimalism/Minimalist Program: A theory of grammar developed by Chomsky whose core assumption is that grammars are minimally complex, perfect systems of optimal design.

Nativism: The view that children bring a biologically endowed abstract knowledge to the task of learning a first language, and this abstract knowledge contains the shape of the target linguistic system they learn.

Negative Evidence: A term related to the type of feedback that language learners get, and specifically refers to the information that a learner's utterance is ill-formed in some way.

Offline Methods: Methods employed in order to see how participants interpret a sentence after they have heard the complete sentence. In off-line tasks, participants can have time to think about the meaning of the sentence.

Online Methods: Methods used in order to measure the participants' performance as the sentence unfolds. Participants don't have time to think about the sentence.

Overt Movement: In Government and Binding theory, overt movement takes place from D-Structure to S-Structure. In the Minimalist Program, strong features must be checked by overt movement before the grammar splits into Phonetic Form (PF) and Logical Form (LF).

Parsing: A psycholinguistic term that refers to the real-time computation of syntactic structures during comprehension.

Scrambling: The variation of the order of words in sentences of nonconfigurational languages such as Latin.

Specifier/Spec: The grammatical function fulfilled by certain types of constituent which precede the head of their containing phrase.

Subjacency Condition: A condition on movement. Movement is not allowed across more than one bounding node.

Successive-cyclic Movement: Movement in a succession of short steps.

Uninterpretable Features: Features that do not have an effect on semantic interpretation. Uninterpretable features must be eliminated from the system through movement operations before they reach Logical Form (LF).

Universal Grammar: Chomsky argues that children are active creators of a linguistic system and are guided by the innate knowledge called Universal Grammar.

Value: In relation to a feature such as [Singular-Number], number is said to be an attribute (and represents the property being described) and singular its value. To value a feature is to assign it a value.

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APPENDICES

APEENDIX A: Placement Test Interpretation

This (Oxford Quick) placement test is comprised of 60 items. To learn about your language proficiency level, you might want to map your score onto the interpretation table in the downloads folder.

Score;	Common European Framework Description	Common European Framework Level	Cambridge Examinations
55-60	Mastery (Upper Advanced)	C2	CPE
48-54	Effective Proficiency (Lower Advanced)	C1	CAE BEC Higher CELS Higher
40-47	Vantage (Upper Intermediate)	B2	FCE CELS Vantage
30-39	Threshold (Lower Intermediate)	B1	PET BEC Preliminary CELS Preliminary
18-29	Waystage (Elementary)	A2	KET
0-17	Breakthrough	A1	
0	Beginner		

APPENDIX B: THE READING COMPREHENSION TASK

STORY I

Bob often plays classical music at home, hoping that his children will learn to appreciate it. Moreover, he often mentions this in parent-teacher meetings so that other parents can do the same thing for the sake of their children. However, he sometimes finds himself on the verge of abandoning all hope.

One day Bob thought he had made progress when he came home from work in the evening and heard an opera album being played. At the very moment, his teenage son was just leaving the house. In the morning, while having breakfast, Bob congratulated his son on his new musical interest.

"I wasn't listening to it," he replied. "I only put it on in the evening when the burglars attempted to come into the house as I thought it would scare them away."

Q: Where does Bob mention why he plays classical music?

A: At home

B: In parent-teacher meetings

Q: When did Bob think that he made progress?

A: When he suggested other parents listen to classical music.

B: When he heard a classical album being played at home.

Q: When did the son say that he played classical music?

A: In the evening

B: In the morning

Q: Why did the son say that he put the music on?

A: Because he loved classical music.

B: Because it would frighten the thieves.

STORY II

A customer called our service line demanding help with her TV set, which wouldn't turn on. However, many problems, including the blizzard, prevented us from sending any technicians out of the center.

"I'm sorry, but we can't send a technician out today due to the blizzard," I told her. Being a bit sad because I cannot help her, I gently added that we would send someone hastily as soon as we solved the technical problems and the blizzard came to an end.

On her third call at 15:00, unsatisfied, she barked, "I need my TV fixed this evening! What else am I supposed to do while the power is out?!"

Q: How did I say when we would send a technician?

A: Hastily

B: Gently

Q: Why did I say that we couldn't send a technician?

A: Due to the blizzard

B: Due to the lack of technicians

Q: When did the customer insist that she needed her TV?

A: In the evening

B: In the afternoon

Q: Why did the customer say that she needed her TV fixed?

A: Because she had nothing to do but watch TV.

B: Because the TV was still under warranty.

STORY III

Sitting at home with my son last week, I told him that before his birth I witnessed one of the funniest things ever. Unfortunately, he did not have time to listen to the story because of his assignments, so I left the note in his room so that he could read it later:

"Before your birth, your dad and I attended birthing classes at the hospital. One day we toured the maternity ward. The instructor mentioned that on the last evening of our stay, we would be given a complimentary dinner for two, and she told us what the menu selections would be. As we continued the tour, I whispered to my husband that I was getting very excited. Nodding his head, he quietly replied that he would happily order fish just after the birth.

Q: When did the woman say that she witnessed one of the funniest things ever?

A: Last week

B: Before the birth of his son

Q: Why does the woman think that his son could not listen to her?

A: He found it boring.

B: He had some assignments.

Q: When does the woman state that they attended birthing classes?

A: Before she gave birth to her son

B: After she gave birth to her son.

Q: How did the husband say when he would order fish?

A: Happily

B: Quietly

STORY IV

Yesterday, my high school friend, Jack and I were talking about the funny memories of old times. We were in a café and Jack said that the most embarrassing moment of his life happened at their university campus because of a misunderstanding:

“During my junior year at university, I was attending a swimming class where I was practising with a beautiful girl. I was so happy when she finally said “Swimming is getting to be pretty dull. Let’s go to the bars on Saturday night. We can meet at the gym.”

Imagine my embarrassment when I showed up in a new outfit only to be met by her in a sweatsuit. She had intended to work out on the gymnastic bars. I dared to reveal my embarrassment only to my brother because he promised to keep it secret.”

Q: Where did Jack say why the most embarrassing event of his life happened?

A: At a university campus

B: In a café

Q: What did Jack say that he wore when he met the girl at the gym?

A: A new outfit

B: A sweatsuit

Q: Where did the girl say that they could meet?

A: At the gym

B: In a café

Q: Why did Jack say to his brother that he was quite embarrassed?

A: Because of a misunderstanding

B: Because of his promising not to tell anyone

STORY V

Rachel was training to become a doctor at the State University of New York at Albany. Since her parents were both doctors, she had grown accustomed to people asking her for medical advice. One day while she was reading a newspaper in the canteen, a friend asked, "How can I tell if I'm losing my memory?" Without looking up from her paper, Rachel cunningly said that he should remember it since she had clearly explained that to him just the day before.

One day later, Rachel found herself at the dean’s office. A professor had complained about her saying angrily that a student hurriedly came to his office claiming that he had lost his memory two days before.

Q: When did Rachel say that she explained his friend’s problem?

A: The day before

B: The week before

Q: How did Rachel say when she explained her friend's problem to him?

A: Clearly

B: Cunningly

Q: How did the professor say that a student came to his office?

A: Hurriedly

B: Angrily

Q: What did the student claim that he lost?

A: His identity

B: His memory

STORY VI

I've always considered myself a generous tipper. However, I didn't know how big a spender I was until a short while ago. Last month, I took a business partner for lunch. We sat down and I immediately felt that I should promptly tip the waiter. Indeed, I left him a generous tip as soon as he brought us the bill.

After I had just put in my first expenses claim for this lunch my boss called me into his office. Looking up from the form, he scornfully said, "Next time you take someone to lunch, tell me in advance. I would readily serve your table."

Q: When did the author feel that he should tip the waiter?

A: Promptly

B: Immediately

Q: How did the author say he tipped the waiter?

A: Generously

B: Parsimoniously

Q: Where did the author state that his boss called him?

A: To a restaurant

B: To his office

Q: How did the boss say when he would serve the author's table?

A: Scornfully

B: Readily

STORY VII

A Republican and a Democrat were walking down the street when they came to a homeless person. The Republican gave the homeless person his business card and kindly insisted that he should stop by for a job interview the next day without hesitation. He then took a 20 dollar bill out of his pocket and handed it to him. Seeing that he was talking to a politician, the homeless man thanked the Republican tens of times adding that he never regretted voting for the Republican Party.

Because the Democrat was clearly impressed, he admiringly said that everyone should behave as generously as the Republican. When they came to another homeless person, the Democrat decided it was his turn to help. So he reached into the Republican's pocket and gave the homeless man 50 dollars.

Q: How did the Republican insist when the homeless man should stop by for a job interview?

A: Without hesitation

B: Kindly

Q: Who did the homeless man reveal that he voted for?

A: The Republican Party

B: The Democrat Party

Q: Who did the Democrat say that people should behave like?

A: The Republican

B: The Democrat

Q: How did the Democrat say that everyone should behave?

A: Generously

B: Admiringly

STORY VIII

Edith and Norbert had an unceasing battle over his inability to earn a better living. As it was not bearable for her any more, Edith finally told him he wasn't forceful enough in asking for a raise because he felt frightened to death of his boss. "Tell him," she yelled, "that you have seven children. You also have a sick mother, you have to sit up many nights, and you have to clean the house because you can't afford a maid."

Several days later, Norbert came from work, stood before his wife and, with no sign of emotion, announced that the boss had fired him without paying compensation. "Why?" asked Edith. Norbert answered: "He says I have too many outside activities."

Q: What did Edith say that Norbert could not do?

A: Get a job

B: Ask for a raise

Q: Why did Edith tell Norbert that he wasn't forceful enough to ask for a raise?

A: Because their living conditions became unbearable for her.

B: Because she thought he was afraid of his boss.

Q: How did Norbert announce why the boss fired him?

A: Without paying compensation

B: With no signs of emotion

Q: Why did the boss decide that Norbert should be fired?

A: Because he was too busy to work.

B: Because he deserved to work under better conditions.

STORY IX

Just last week, Burt Reynolds described the most unforgettable day in his life in an interview for a magazine. It was about a cold day in 1945 when both he and Clint Eastwood were sacked by Universal Studios:

I was told I couldn't act, and Clint was rudely told he talked too slowly and his Adam's apple was too big. As we were walking to our cars, we were quiet - but then, it's always quiet around Clint. Finally I said, "You're in trouble, Clint. I can take acting lessons, but you can't get a new Adam's apple."

Q: When did Burt Reynolds say that he and Eastwood were quiet?

A: While walking to their cars

B: While being sacked

Q: When did Burt Reynolds say why they were sacked?

A: Just last week

B: In 1945

Q: How did people at Universal Studios tell Eastwood that he talked?

A: Slowly

B: Rudely

Q: Why did Reynolds think that Eastwood was in trouble?

A: Because he spoke slowly.

B: Because he had a big Adam's apple.

STORY X

Melissa had been in a relationship for several months. It was time to break the news to her protective father, Bill, as she and her boyfriend decided to meet each other's families. However, she was afraid of her father's reaction, so she dreadingly told her mother that she had been dating secretly for some time and asked her to report the news to her father.

The next morning, while the family was having breakfast in the kitchen, Bill told Melissa to invite her boyfriend to dinner in a restaurant that evening. Her mother had thought that Bill would take it better if she explained to him that Melissa's boyfriend was a Marine who had just returned from Iraq. This pleased Bill immensely.
"A Marine? Good!" he said. "That means he can take orders."

Q: Who did Melissa say her mother should report the news to?

A: Her father

B: Her brother

Q: How did Melissa admit how long she had been in a relationship?

A: Secretly

B: Dreadingly

Q: Where did Bill say that Melissa should invite her boyfriend?

A: In the kitchen

B: In a restaurant

Q: What did her mother think that Bill would be pleased with?

A: That Melissa's boyfriend was a Marine.

B: That Melissa had a committed relationship.

APPENDIX C: THE ONLINE EXPERIMENT

ONLINE EXPERIMENT

In the experiment that follows, you will be shown sentences in English. Please read them carefully. After you have read each sentence, you will be shown a question related to it. The question will appear on the screen one phrase at a time – as you press the spacebar, the words or phrases that you have already read will disappear and the next ones will appear. How quickly the words of the question disappear and appear on the screen depends on how fast you press the spacebar. Please, make sure that you read the questions as quickly as possible.

After you have finished reading each question, press the spacebar and a choice of two possible answers to the question will appear on the screen. Keeping in mind the original sentence, please press the A key if you think answer A is correct, and the B key if you think answer B is correct. Then proceed with the next sentence.

EXPERIMENT

Q1: Sheila said that she had played in the garden for an hour when her mother told her to return home.

Where did Sheila say that she had played for an hour?

- a.) At home b.) In the garden

Q2: As he was walking home with his wife, Jack told her that he had lost his passport while roaming around the London streets.

When did Jack say that he had lost his passport?

- a.) As he was walking home b.) While he was roaming in London

Q3: Diana mentioned that she had finished a big project the previous year, which helped her considerably be promoted to a position she desired.

What did Diana mention that she had finished the previous year?

- a.) A big project b.) A small business investment

Q4: Hearing that he failed, my friend disappointedly told me that he would challenge the result properly when he met the instructor.

How did my friend say when he would challenge the results?

- a.) Properly b.) Disappointedly

Q5: Jane said that she had come to the office to prepare the documents for the meeting before anyone else showed up.

Where did Jane say that she had come before anyone else?

- a.) To the restaurant b.) To the office

Q6: Yesterday in the school canteen, my classmate told me that he would do his Ph.D. at Harvard if he could graduate with high honors.

Where did my classmate say that he would do his Ph.D.?

- a.) At Harvard b.) In the school canteen

Q7: At the party last night, Maureen announced that she would have a baby, which was the most surprising news of the day.

When did Maureen announce that she would have a baby?

- a.) Last night b.) Last week

Q8: After the meeting, the columnist told his colleagues that he would quit his job the following week because he couldn't tolerate the editor any more.

When did the journalist say why he would quit his job?

- a.) The following week b.) After the meeting

Q9: Phillip said that he had helped her sister with the assignment even though she claimed that she did everything on her own.

Who did Phillip say that he had helped with the assignment?

- a.) Her friend b.) Her sister

Q10: Because she cannot keep a secret, my aunt told my father that I had stayed with them after the graduation party because I was drunk.

Why did my aunt reveal that I had stayed with them?

- a.) Because she cannot keep a secret. b.) Because I was drunk.

Q11: Celia regretfully said that she should work at the weekend because she was in need of money to pay the bills.

How did Celia say that she should work at the weekend?

- a.) Regretfully b.) Cheerfully

Q12: In the morning, when he came across an old friend, Max suggested that they should meet in his office that evening to talk about the vacant position.

When did Max suggest where they should meet to talk?

- a.) In the morning b.) In the evening

Q13: Albert claimed that he had to wear uniform every day as a result of the drastic changes made in the regulation.

What did Albert claim that he had to wear every day?

- a.) Uniform b.) Suit

Q14: When he was asked to compose the soundtrack for the film, Paul confidently said that he would prepare it meticulously.

How did Paul say that he would prepare the soundtrack?

- a.) Meticulously b.) Confidently

Q15: Mick finally admitted at the police station that he was driving fast enough to exceed the limits as he was in a hurry.

Where did Mick admit that he was driving fast?

- a.) At hospital b.) At the police station

Q16: Because a journalist insisted on an answer, Steven finally announced that he would be retired at the end of the season in order not to risk his health.

Why did Steve announce when he would be retired?

- a.) In order not to risk his health. b.) Because a journalist insisted on an answer.

Q17: William promised that he would submit the document that day as he had to deal with some technical problems before.

When did William promise that he would submit the document?

- a.) That day b.) The following day

Q18: During the concert, the singer stated that she had composed the song for her family when she was living in the dormitory.

Where did the singer state that she had composed the song?

- a.) In the concert b.) In the dormitory

Q19: Kevin mentioned that he would ride a bicycle every day after he returned from work in order to lose some weight.

Why did Kevin mention that he would ride a bicycle?

- a.) To go to work b.) To lose some weight

Q20: My student persistently claimed that she would successfully pass the exam when she worked during the whole night before the exam.

How did my student claim when she would pass the exam?

- a.) Persistently b.) Successfully

Q21: Nick claimed that the movie about the hysterical politician was so captivating that he had watched it without a break.

How did Nick claim that he had watched the movie?

- a.) With two breaks b.) Without a break

Q22: In an interview just after the match, the referee openly said that he had made a mistake when he didn't show a red card to the goalkeeper.

When did the referee say that he had made a mistake?

- a.) When he didn't show a red card.
- b.) When he had an interview.

Q23: Mark said that he had been born in Missouri, which was an area of transition between the Eastern and Western United States.

Where did Mark say that he had been born?

- a.) In California b.) In Missouri

Q24: In the meeting, the man said that he should really be working in his office instead, in order to meet the deadline.

Where did the man say why he should be working?

- a.) In the office b.) In the meeting

Q25: Charles said that he had made a fortune in Las Vegas with 10 dollars which he gambled for high stakes.

Where did Charles say that he had made a mistake?

- a.) In Las Vegas b.) In Texas

Q26: When the criminal was arrested, he shamelessly told the police that he had brutally murdered dozens of innocent women.

How did the criminal claim that he had murdered the women?

- a.) Shamelessly b.) Brutally

Q27: Michael claimed that he had performed spectacularly in the contest even though he could not win the monetary prize at all.

How did Michael claim that he had performed in the contest?

- a.) Miserably b.) Spectacularly

Q28: When we met on the campus last summer, Jill said she would start working in an international research company the following spring.

When did Jill say where she would start working?

Q29: Robin said that he had lost his key in the park where he was reading the book he accepted as a present in his birthday.

What did Robin say that he had lost in the park?

- a.) The file b.) The key

Q30: Because the meal his aunt prepared did not appeal to him, Sean said that he could not taste it since he was completely full.

Why did Sean say that he couldn't taste the meal?

- a.) Because he was full.
- b.) Because the meal did not appeal to him.

Q31: Tara said that she had had a breakfast before the meeting where the administration decided that strict measures should be taken against unemployment.

When did Tara say that she had had a breakfast?

- a.) Before the meeting b.) After the meeting

Q32: After the burial of the politician, the Governor resolutely stated that they would easily identify the assassin when the video records of the event were obtained.

How did the Governor state when they would identify the assassin?

- a.) Resolutely b.) Easily

Q33: Ash claimed that he had informed the Chairperson about his travel to Italy where he would present the findings of his research.

Who did Ash claim that he had informed about the travel?

- a.) The secretary b.) The Chairperson

Q34: The journalist boldly claimed that the Prime Minister would wholeheartedly back up the rebellion in the neighbouring country.

How did the journalist claim that the Prime Minister would back up the rebellion?

- a.) Boldly b.) Wholeheartedly

Q35: David claimed that he had seen the murderer in the market ten minutes before the man took a taxi and disappeared.

Where did David claim that he had seen the murderer?

- a.) In the market b.) At the bus station

Q36: The moment Jack finished reading the article, he called the author to say that he would gladly review it as soon as he defended his thesis.

When did Jack say how he would review the article?

- a.) As soon as he defended his thesis.

b.) The moment he finished the article.

Q37: Nicole said that she had completed the assignment in two hours since she had another homework for the next day.

What did Nicole mention that she had completed in two hours?

a.) The survey b.) The assignment

Q38: Yesterday afternoon, the Head of the Department stated that the results would be announced on the web site of the university the following week.

When did the Head of the Department state that the results would be announced?

a.) Yesterday afternoon b.) The following week

Q39: Bruce said that he had ambitiously worked on the project until the sponsor company went into bankruptcy and cancelled the project.

How did Bruce say that he had worked on the project?

a.) Ambitiously b.) Reluctantly

Q40: After his defeat, Brian confidently declared that he would warmly congratulate his opponent the following day.

How did Brian declare that he would congratulate his opponent?

a.) Confidently b.) Warmly

APPENDIX D: THE GRAMMATICALITY JUDGMENT TASK IN TURKISH

Aşağıdaki cümleleri dikkatle inceleyerek, cümle içerisinde altı çizili olarak belirtilen sözcük gruplarına yönelik olarak verilen soru cümlelerini dilbilgisel ve anlamsal uygunluk açısından değerlendiriniz.

Her bir seçeneği kendi içerisinde inceleyerek, size göre en uygun olan seçenek(ler)e 1, en uygun olmayan seçenek(ler)e 5 verecek şekilde, 1 – 5 arasında derecelendiriniz.

Örnek:

Ahmet yağmur yağınca sıırıslıslam ıslandığını söyledi.

Ahmet ne zaman nasıl ıslandığını söyledi?	1	2	3	4	5
Nasıl Ahmet ne zaman ıslandığını söyledi?	1	2	3	4	5
Ahmet ıslandığını nasıl ne zaman söyledi?	1	2	3	4	5
Ne zaman Ahmet nasıl ıslandığını söyledi?	1	2	3	4	5
Ne zaman nasıl ıslandığını Ahmet söyledi?	1	2	3	4	5

1. Kaan yarın gizlice kaçtığını itiraf edecek.

Kaan ne zaman nasıl kaçtığını itiraf edecek?	1	2	3	4	5
Ne zaman Kaan nasıl kaçtığını itiraf edecek?	1	2	3	4	5
Nasıl Kaan ne zaman kaçtığını itiraf edecek?	1	2	3	4	5
Kaan nasıl ne zaman kaçtığını itiraf edecek?	1	2	3	4	5
Kaan nasıl kaçtığını ne zaman itiraf edecek?	1	2	3	4	5

2. Ali akşam yemeği için bize geleceğini söyledi.

Niçin Ali nereye geleceğini söyledi?	1	2	3	4	5
Ali nereye niçin geleceğini söyledi?	1	2	3	4	5
Ali niçin nereye geleceğini söyledi?	1	2	3	4	5
Ali niçin geleceğini nereye söyledi?	1	2	3	4	5
Ali nereye geleceğini niçin söyledi?	1	2	3	4	5

3. Can **dertli dertli kazadan önce** rüzgar gibi koşabildiğini söyledi.

Can ne zaman nasıl koşabildiğini söyledi?	1	2	3	4	5
Can nasıl ne zaman koşabildiğini söyledi?	1	2	3	4	5
Ne zaman Can nasıl koşabildiğini söyledi?	1	2	3	4	5
Can ne zaman koşabildiğini nasıl söyledi?	1	2	3	4	5
Can nasıl koşabildiğini ne zaman söyledi?	1	2	3	4	5

4. Ayşe **partiye sonuna doğru** katıldığını söyledi.

Ayşe ne zaman nereye katıldığını söyledi?	1	2	3	4	5
Nereye Ayşe ne zaman katıldığını söyledi?	1	2	3	4	5
Ne zaman Ayşe nereye katıldığını söyledi?	1	2	3	4	5
Ayşe nereye ne zaman katıldığını söyledi?	1	2	3	4	5
Ayşe ne zaman katıldığını nereye söyledi?	1	2	3	4	5

5. Onur **geçen hafta master için** Almanya'ya gideceğini söyledi.

Niçin Onur ne zaman Almanya'ya gideceğini söyledi?	1	2	3	4	5
Onur ne zaman Almanya'ya gideceğini niçin söyledi?	1	2	3	4	5
Onur ne zaman niçin Almanya'ya gideceğini söyledi?	1	2	3	4	5
Ne zaman Onur niçin Almanya'ya gideceğini söyledi?	1	2	3	4	5
Onur niçin Almanya'ya gideceğini ne zaman söyledi?	1	2	3	4	5

6. Selim **sigaradan dolayı giderek** zayıfladığını söyledi.

Neden Selim nasıl zayıfladığını söyledi?	1	2	3	4	5
Selim nasıl neden zayıfladığını söyledi?	1	2	3	4	5
Selim neden nasıl zayıfladığını söyledi?	1	2	3	4	5
Selim neden zayıfladığını nasıl söyledi?	1	2	3	4	5
Selim nasıl zayıfladığını neden söyledi?	1	2	3	4	5

7. Ayhan **anı kitabında ilk günden** okuldan atıldığını yazdı.

Nerede Ayhan ne zaman okuldan atıldığını yazdı?	1	2	3	4	5
Ayhan ne zaman nerede okuldan atıldığını yazdı?	1	2	3	4	5
Ayhan ne zaman okuldan atıldığını nerede yazdı?	1	2	3	4	5
Ayhan nerede ne zaman okuldan atıldığını yazdı?	1	2	3	4	5
Ayhan ne zaman okuldan atıldığını nerede yazdı?	1	2	3	4	5

8. Harun **kısa boyundan dolayı ön sıraya** oturduğunu söyledi.

Niçin Harun nereye oturduğunu söyledi?	1	2	3	4	5
Harun nereye oturduğunu niçin söyledi?	1	2	3	4	5
Harun niçin nereye oturduğunu söyledi?	1	2	3	4	5
Harun nereye niçin oturduğunu söyledi?	1	2	3	4	5
Nereye Harun niçin oturduğunu söyledi?	1	2	3	4	5

9. Hilal **gülümseyerek dün akşam** yanlış otobüse bindiğini söyledi.

Hilal ne zaman yanlış otobüse bindiğini nasıl söyledi?	1	2	3	4	5
Ne zaman Hilal nasıl yanlış otobüse bindiğini söyledi?	1	2	3	4	5
Hilal nasıl yanlış otobüse bindiğini ne zaman söyledi?	1	2	3	4	5
Hilal nasıl ne zaman yanlış otobüse bindiğini söyledi?	1	2	3	4	5
Nasıl Hilal ne zaman yanlış otobüse bindiğini söyledi?	1	2	3	4	5

10. Şafak **1980 yılında İzmir’de** doğduğunu söyledi.

Ne zaman Şafak nerede doğduğunu söyledi?	1	2	3	4	5
Şafak ne zaman nerede doğduğunu söyledi?	1	2	3	4	5
Şafak nerede doğduğunu ne zaman söyledi?	1	2	3	4	5
Nerede Şafak ne zaman doğduğunu söyledi?	1	2	3	4	5
Şafak ne zaman doğduğunu nerede söyledi?	1	2	3	4	5

11. Şule **utanç içinde şapkasından dolayı** yaşlı adamla dalga geçtiklerini itiraf etti.

Şule niçin dalga geçtiklerini nasıl itiraf etti?	1	2	3	4	5
Şule niçin nasıl dalga geçtiklerini itiraf etti?	1	2	3	4	5
Nasıl Şule niçin dalga geçtiklerini itiraf etti?	1	2	3	4	5
Şule nasıl niçin dalga geçtiklerini itiraf etti?	1	2	3	4	5
Niçin Şule nasıl dalga geçtiklerini itiraf etti?	1	2	3	4	5

12. Zeki **kısıtlı bütçesinden dolayı Paris seyahati boyunca** pansiyonda kalacağını söyledi.

Zeki niçin ne zaman pansiyonda kalacağını söyledi?	1	2	3	4	5
Zeki ne zaman pansiyonda kalacağını niçin söyledi?	1	2	3	4	5
Niçin Zeki ne zaman pansiyonda kalacağını söyledi?	1	2	3	4	5
Zeki pansiyonda kalacağını ne zaman niçin söyledi?	1	2	3	4	5
Ne zaman Zeki niçin pansiyonda kalacağını söyledi?	1	2	3	4	5

13. Işıl **sohbet sırasında ses renginden dolayı** Tarkan'a hayran olduğunu söyledi.

Niçin Işıl ne zaman Tarkan'a hayran olduğunu söyledi?	1	2	3	4	5
Ne zaman Işıl niçin Tarkan'a hayran olduğunu söyledi?	1	2	3	4	5
Işıl ne zaman niçin Tarkan'a hayran olduğunu söyledi?	1	2	3	4	5
Işıl niçin ne zaman Tarkan'a hayran olduğunu söyledi?	1	2	3	4	5
Işıl niçin Tarkan'a hayran olduğunu ne zaman söyledi?	1	2	3	4	5

14. Gül **ölüm haberini alınca hıçkırarak hıçkırarak** ağladığını söyledi.

Gül ne zaman ağladığını nasıl söyledi?	1	2	3	4	5
Gül nasıl ağladığını ne zaman söyledi?	1	2	3	4	5
Ne zaman Gül nasıl ağladığını söyledi?	1	2	3	4	5
Gül ne zaman nasıl ağladığını söyledi?	1	2	3	4	5
Gül nasıl ne zaman ağladığını söyledi?	1	2	3	4	5

15. Metin **otobüste sonraki hafta** İzmir'e taşınacağını söyledi.

Metin nerede İzmir'e taşınacağını ne zaman söyledi?	1	2	3	4	5
Metin nerede ne zaman İzmir'e taşınacağını söyledi?	1	2	3	4	5
Ne zaman Metin nerede İzmir'e taşınacağını söyledi?	1	2	3	4	5
Metin ne zaman İzmir'e taşınacağını nerede söyledi?	1	2	3	4	5
Nerede Metin ne zaman İzmir'e taşınacağını söyledi?	1	2	3	4	5

16. Derya **kilo almamak için her sabah** yürüdüğünü anlattı.

Niçin Derya yürüdüğünü ne zaman söyledi?	1	2	3	4	5
Derya ne zaman yürüdüğünü niçin söyledi?	1	2	3	4	5
Derya ne zaman niçin yürüdüğünü söyledi?	1	2	3	4	5
Derya niçin yürüdüğünü ne zaman söyledi?	1	2	3	4	5
Ne zaman Derya niçin yürüdüğünü söyledi?	1	2	3	4	5

17. Cem **sabah uyandığında ilaç aldığı için** uyuyakaldığını farketti.

Cem niçin uyuyakaldığını ne zaman farketti?	1	2	3	4	5
Ne zaman Cem niçin uyuyakaldığını farketti?	1	2	3	4	5
Cem ne zaman uyuyakaldığını niçin farketti?	1	2	3	4	5
Cem ne zaman niçin uyuyakaldığını farketti?	1	2	3	4	5
Niçin Cem ne zaman uyuyakaldığını farketti?	1	2	3	4	5

18. Ömer **maç sırasında açlıktan** bayıldığını söyledi.

Ömer neden ne zaman bayıldığını söyledi?	1	2	3	4	5
Ne zaman Ömer neden bayıldığını söyledi?	1	2	3	4	5
Ömer ne zaman bayıldığını neden söyledi?	1	2	3	4	5
Neden Ömer bayıldığını ne zaman söyledi?	1	2	3	4	5
Ömer ne zaman neden bayıldığını söyledi?	1	2	3	4	5

19. Demet **kahvaltıda devamsızlıktan** sınıfta kaldığını söyleyecek.

Demet ne zaman sınıfta kaldığını neden söyleyecek?	1	2	3	4	5
Neden Demet ne zaman sınıfta kaldığını söyleyecek?	1	2	3	4	5
Demet neden sınıfta kaldığını ne zaman söyleyecek?	1	2	3	4	5
Ne zaman Demet neden sınıfta kaldığını söyleyecek?	1	2	3	4	5
Demet ne zaman neden sınıfta kaldığını söyleyecek?	1	2	3	4	5

20. Erdal **dosyaları almak için ofise** uğrayacağını söyledi.

Nereye Erdal uğrayacağını niçin söyledi?	1	2	3	4	5
Niçin Erdal nereye uğrayacağını söyledi?	1	2	3	4	5
Erdal nereye niçin uğrayacağını söyledi?	1	2	3	4	5
Erdal niçin uğrayacağını nereye söyledi?	1	2	3	4	5
Erdal nereye uğrayacağını niçin söyledi?	1	2	3	4	5

21. İclal **kısa mesajla doğum günü olduğundan** sınava giremeyeceğini bildirdi.

İclal nasıl niçin sınava giremeyeceğini bildirdi?	1	2	3	4	5
İclal niçin sınava giremeyeceğini nasıl bildirdi?	1	2	3	4	5
Nasıl İclal niçin sınava giremeyeceğini bildirdi?	1	2	3	4	5
İclal nasıl sınava giremeyeceğini niçin bildirdi?	1	2	3	4	5
Niçin İclal nasıl sınava gitmeyeceğini bildirdi?	1	2	3	4	5

22. Erkan **müdür içeri girince saygıyla** ayağa kalktığını söyledi.

Erkan nasıl ayağa kalktığını ne zaman söyledi?	1	2	3	4	5
Nasıl Erkan ne zaman ayağa kalktığını söyledi?	1	2	3	4	5
Erkan ne zaman nasıl ayağa kalktığını söyledi?	1	2	3	4	5
Erkan ne zaman ayağa kalktığını nasıl söyledi?	1	2	3	4	5
Ne zaman Erkan ayağa kalktığını nasıl söyledi?	1	2	3	4	5

23. Salih **basın toplantısında turnuvadan sonra** emekli olacağını açıkladı.

Ne zaman Salih nerede emekli olacağını açıkladı?	1	2	3	4	5
Salih nerede emekli olacağını ne zaman açıkladı?	1	2	3	4	5
Salih ne zaman emekli olacağını nerede açıkladı?	1	2	3	4	5
Nerede Salih ne zaman emekli olacağını açıkladı?	1	2	3	4	5
Salih nerede ne zaman emekli olacağını açıkladı?	1	2	3	4	5

24. Tolga **derslerine yoğunlaşmak için zorunlu olarak** işten ayrıldığını söyledi.

Tolga nasıl işten ayrıldığını niçin söyledi?	1	2	3	4	5
Tolga niçin nasıl işten ayrıldığını söyledi?	1	2	3	4	5
Nasıl Tolga niçin işten ayrıldığını söyledi?	1	2	3	4	5
Tolga niçin işten ayrıldığını nasıl söyledi?	1	2	3	4	5
Niçin Tolga nasıl işten ayrıldığını söyledi?	1	2	3	4	5

25. Sinan **konferansta aksi ispatlanamadığından** evrime inandığını belirtti.

Sinan nerede niçin evrime inandığını belirtti?	1	2	3	4	5
Niçin Sinan nerede evrime inandığını belirtti?	1	2	3	4	5
Sinan niçin evrime inandığını nerede belirtti?	1	2	3	4	5
Nerede Sinan niçin evrime inandığını belirtti?	1	2	3	4	5
Sinan niçin nerede evrime inandığını belirtti?	1	2	3	4	5

26. Betül **yarın akşam Madrid'e** uçacağını söyledi.

Nereye Betül uçacağını ne zaman söyledi?	1	2	3	4	5
Betül nereye uçacağını ne zaman söyledi?	1	2	3	4	5
Betül ne zaman uçacağını nereye söyledi?	1	2	3	4	5
Betül ne zaman nereye uçacağını söyledi?	1	2	3	4	5
Ne zaman Betül nereye uçacağını söyledi?	1	2	3	4	5

27. Deniz **film arasında resmi görevli olarak** Viyana'da bulunacağını söyledi.

Nerede Deniz Viyana'da bulunacağını nasıl söyledi?	1	2	3	4	5
Deniz nasıl Viyana'da bulunacağını nerede söyledi?	1	2	3	4	5
Nerede Deniz nasıl Viyana'da bulunacağını söyledi?	1	2	3	4	5
Deniz nerede nasıl Viyana'da bulunacağını söyledi?	1	2	3	4	5
Deniz nasıl nerede Viyana'da bulunacağını söyledi?	1	2	3	4	5

28. Yaşar **ailesini görmek için haftaya** döneceğini yazdı.

Yaşar ne zaman niçin döneceğini yazdı?	1	2	3	4	5
Yaşar niçin döneceğini ne zaman yazdı?	1	2	3	4	5
Ne zaman Yaşar niçin döneceğini yazdı?	1	2	3	4	5
Yaşar niçin ne zaman döneceğini yazdı?	1	2	3	4	5
Niçin Yaşar ne zaman döneceğini yazdı?	1	2	3	4	5

29. Caner **akşam yemeğinden sonra yarışta** herkesten hızlı yüzdüğünü anlattı.

Caner nerede hızlı yüzdüğünü ne zaman anlattı?	1	2	3	4	5
Nerede Caner ne zaman hızlı yüzdüğünü anlattı?	1	2	3	4	5
Caner ne zaman nerede hızlı yüzdüğünü anlattı?	1	2	3	4	5
Ne zaman Caner nerede hızlı yüzdüğünü anlattı?	1	2	3	4	5
Caner ne zaman hızlı yüzdüğünü nerede anlattı?	1	2	3	4	5

30. Hakan **yaşlanmamak için sağlıklı** beslendiğini belirtti.

Niçin Hakan beslendiğini nasıl belirtti?	1	2	3	4	5
Hakan nasıl beslendiğini niçin belirtti?	1	2	3	4	5
Hakan niçin nasıl beslendiğini belirtti?	1	2	3	4	5
Hakan niçin beslendiğini nasıl belirtti?	1	2	3	4	5
Hakan nasıl niçin beslendiğini belirtti?	1	2	3	4	5

APPENDIX E: TURKISH OFFLINE QUESTIONNAIRE

I: Kaan, çocukları da öğrenmeye hevesli olsunlar diye evde sıklıkla klasik müzik çalar. Dahası, diğer aileler de çocuklarının iyiliği için aynı şeyi yapsınlar diye bunu veli toplantılarında da sık sık dile getirir. Fakat bazen öyle şeyler olur ki tüm ümidini kaybetmenin eşiğine gelir.

Kaan bir akşam işten eve döndüğünde evde bir opera albümünün çaldığını duyduğunda ufak da olsa bir ilerleme kaydettiğini düşünüp keyiflendi. Tam gidip oğluyla konuşacaktı ki oğlunun o sırada evde olmadığını fark etti. Ertesi sabah kahvaltıda, oğlunu yeni müzik zevkinden dolayı kutlama fırsatı bulmuştu fakat genç adamın cevabıyla şok oldu: “Ben dinlemiyordum ki; akşam birileri kapıyı zorladı, hırsız zannettim. Müziği çalmaya başladım, korksunlar diye de iyice sesini açtım.”

S1: Kaan nerede niçin klasik müzik çaldığını dile getirir?

A: Evde

B: Veli toplantılarında

S2: Kaan ne zaman ilerleme kaydettiğini düşündü?

A: Diğer velilere de klasik müzik dinlemelerini önerince

B: Evde bir opera albümünün çaldığını duyunca

S3: Kaan’ın oğlu ne zaman klasik müzik çaldığını söyledi?

A: Akşam

B: Sabah

S4: Oğlu niçin klasik müzik çaldığını söyledi?

A: Klasik müziği sevdiği için

B: Hırsızları korkutmak için

II: Geçenlerde bir müşteri çalışmayan TV seti için yardım talep etmek üzere hizmet hattımızı aradı. Fakat kar yağışı ve diğer birtakım sebeplerden dolayı hiçbir teknisyenimizi merkez dışına gönderemiyorduk. “Özür dilerim, fakat kar yağışından dolayı bugün teknisyen yollayamayacağız” dedim. Yardım edememek canımı sıkıyordu; aksaklıklar giderilip kar yağışı durduğu anda hemen birini yollayacağımızı nazikçe ekledim.

Saat 15:00'i gösteriyordu ki aynı kişi üçüncü defa aradı. Son derece sinirlendiği haykırmasından anlaşılıyordu: "Yeter artık, televizyonumu tamir edin! Bu akşam bu iş hallolsun. Elektrikler kesikken başka ne yapabilirim?"

S1: Görevli nasıl ne zaman teknisyen göndereceğini söyledi?

A: Hemen

B: Nazıkçe

S2: Görevli niçin teknisyen gönderemeyeceğini söyledi?

A: Kar yağışından dolayı

B: Teknisyen eksikliğinden dolayı

S3: Müşteri ne zaman TV'ye ihtiyacı olduğunu üsteledi?

A: Akşam

B: Öğleden sonra

S4: Müşteri neden TV'nin yapılmasını istediğini söyledi?

A: TV izlemekten başka yapacak bir şeyi yoktu.

B: TV'nin garantisi devam ediyordu.

III: Geçen hafta evde oğlumla otururken, ona doğumundan önce hayatımdaki en komik olaylardan birine şahit olduğumu söyledim. Ne yazık ki, ödevlerinden dolayı bunu dinleyecek vakti yoktu, ben de daha sonra okuyup öğrenir diye odasına bıraktığım notta olayı anlattım:

"Sen doğmadan önce, babanla beraber bir hastanede uygulamalı doğum derslerine katılmıştık. Bir gün yeni doğan servisini geziyorduk. Görevli, burada kalışımızın son gününde, ikimiz için veda yemeği verileceğini söyleyip menüde neler olacağını ilettiler. Daha sonra dolaşmaya devam ettik, bu sırada eşime her geçen dakika daha fazla heyecanlandığımı fısıldadım. Başını sallayıp sessizce cevap verdi: 'Asıl ben heyecanlıyım, doğumdan hemen sonra keyifle balık sipariş edeceğim'"

S1: Kadın ne zaman hayatındaki en komik olaylardan birine şahit olduğunu söyledi?

A: Geçen hafta

B: Oğlunun doğumundan önce

S2: Kadın neden oğlunun kendisini dinleyemeyeceğini düşündü?

A: Çocuk sıkıldığı için

B: Çocuğun ödevleri olduğundan

S3: Kadın ne zaman uygulamalı doğum derslerine katıldıklarını söyledi?

A: Oğlunun doğumundan önce

B: Oğlunun doğumundan sonra

S4: Eşi nasıl ne zaman balık sipariş edeceğini söyledi?

A: Keyifle

B: Sessizce

IV: Dün, liseden arkadaşım Cem’le eski zamanlardaki anılarımızdan bahsediyorduk. Bir kafede oturmuştuk, Cem hayatının en utanç verici anının üniversite kampüsünde bir yanlış anlaşılma neticesinde meydana geldiğini söyledi:

“Üniversitede ilk yılımdı, yüzme derslerine katılıyordum, güzel bir kızla antrenman yapıyordum. Bir gün aniden beni inanılmaz mutlu eden bir şey söyledi: ‘Yüzme sıkmaya başladı. Cumartesi gece barlara geçelim. Jimnastik salonunda buluşuruz.’ Yeni aldığım takım elbiseyle oraya gidip de kızı eşofmanıyla beni beklerken gördüğümde yaşadığım utancı tahmin edersin. Meğer jimnastik barlarda antrenman yapmayı kastetmiş. Bugüne kadar bu olayı sadece sır olarak tutmaya söz veren kardeşime anlatabilmişim. ”

S1: Cem nerede niçin hayatının en utanç verici olayının yaşandığını söyledi?

A: Üniversite kampüsünde

B: Kafede

S2: Cem kız arkadaşıyla jimnastik salonunda buluştuğunda ne giydiğini söyledi?

A: Yeni bir takım elbise

B: Eşofman

S3: Kız nerede buluşabileceklerini söyledi?

A: Jimnastik salonunda

B: Barda

S4: Cem kardeşine niçin utanç verici bir olay yaşadığını söyledi?

A: Bir yanlış anlaşılma dolay

B: Kimseye söylemeyeceğine söz verdiğinden

V: Eda, Antalya Üniversitesi Tıp Fakültesi öğrencisiydi. Ebeveynlerinin ikisi de doktor olduğundan, hemen her gün tıbbi tavsiye almak için evlerine gelen insanlara alışıktı. Bir gün bölümün kantininde gazete okurken, bir arkadaşı yanına gelip sordu: “Hafızamı kaybedip kaybetmediğimi nasıl anlayabilirim?”. Kafasını okuduğu gazeteden kaldırmadan hınzırca cevabı yapıştırdı Eda: “Bunu sana daha dün açıkça anlatmıştım, hatırlaman lazım.”

Bir gün sonra, Eda kendisini dekanın ofisinde buldu. Bir profesör kendisini şikayet etmiş, bir öğrencinin paldır küldür odasına girip iki gün önce hafızasını kaybettiğini iddia ettiğini kızgınlıkla söylemişti.

S1: Eda ne zaman arkadaşının sorununu açıkladığını söyledi?

A: Bir gün önce

B: Bir hafta önce

S2: Eda nasıl ne zaman arkadaşına sorununu açıkladığını söyledi?

A: Açıkça

B: Hınzırca

S3: Profesör nasıl öğrencinin odasına girdiğini söyledi?

A: Paldır küldür

B: Kızgınlıkla

S4: Öğrenci neyi kaybettiğini iddia etti?

A: Kimliğini

B: Hafızasını

VI: Her zaman cömertçe bahşiş verdiğimi düşünmüşümdür. Fakat ne kadar çok harcadığımı kısa bir süre önce başıma gelen bir olaya kadar bilmiyordum. Geçen ay bir iş ortağımızı yemeğe götürmüştüm. Masamıza oturduk ve aniden garsona çabucak bahşiş verme gereği duydum. Hesabı getirdiği an da hakikaten iyi bir bahşiş bıraktım.

Bu iş yemeğinin faturasını beyan ettikten sonra patron beni odasına çağırdı. Faturaya bakıp bana döndü ve alaycı bir ifadeyle “Bir daha birini yemeğe çıkaracağın zaman bana önceden haber ver. Memnuniyetle servisini yaparım” dedi.

S1: Anlatıcı ne zaman garsona bahşiş verme gereği duydu?

A: Çabucak

B: Aniden

S2: Anlatıcı garsona nasıl bir bahşiş bıraktığını söyledi?

A: Büyük bir miktarda

B: Ufak bir miktarda

S3: Anlatıcı nereye patronunun çağırdığını söyledi?

A: Restorana

B: Ofise

S4: Patronu nasıl ne zaman servisini yapacağını söyledi?

A: Alaycı bir ifadeyle

B: Memnuniyetle

VII: Bir Cumhuriyetçi ve bir Demokrat yolda yürürken evsiz bir insanla karşılaşmışlar. Cumhuriyetçi kartını uzatıp sonraki gün hiç çekinmeden ona iş görüşmesi için gelmesini nazikçe söylemiş. Daha sonra cebinden 20 dolar çıkarıp adama uzatmış. Karşısındaki kişinin politikacı olduğunu anlayan evsiz adam onlarca kez teşekkür edip Cumhuriyetçi Parti’ye oy vermiş olmaktan hiçbir zaman pişmanlık duymadığını söylemiş.

Bu olay Demokrat’ı etkilemiş; hayranlıkla, herkesin en az Cumhuriyetçi kadar cömertçe davranması gerektiğini söylemiş. Bir evsizle daha karşılaşmışlar, Demokrat yardım etme sırasının kendisinde olduğunu söylemiş. Elini Cumhuriyetçinin cebine daldırıp evsiz adama 50 dolar uzatmış.

S1: Cumhuriyetçi nasıl ne zaman evsiz adamın iş görüşmesi için uğramasını söylemiş?

A: Çekinmeden

B: Nazikçe

S2: Evsiz adam kime oy verdiğini açığa vurmuş?

A: Cumhuriyetçi Parti

B: Demokrat Parti

S3: Demokrat, insanların kimin gibi davranması gerektiğini söylemiş?

A: Cumhuriyetçi

B: Demokrat

S4: Demokrat nasıl insanların davranması gerektiğini söylemiş?

A: Cömertçe

B: Hayranlıkla

VIII: Gül ve Mehmet beş yıllık evliydi. Bir gün Mehmet'in rahat yaşamalarına yetecek kadar para kazanamamasından dolayı bitmek tükenmek bilmeyen bir münakaşaya girdiler. Artık bu şekilde devam etmenin dayanılmaz olduğunu düşündüğünden; Gül, Mehmet'in zam isteyecek gücü olmadığını çünkü patronundan ölesiye korktuğunu söyledi. Sonunda bağırarak; "Ona, yedi çocuğun ve hasta bir annen olduğunu, bakıcı tutamadığımızdan birçok geceyi annenin başında uykusuz geçirip evi temizlediğini söyle artık!" dedi.

Birkaç gün sonra Mehmet işten geldi; karısının karşısına geçti. Hiçbir duygu belirtisi olmadan sadece patronunun onu tazminatını vermeden kovduğunu söyleyebildi. "Neden?" diye sordu Gül. Mehmet'in cevabı şaşırtıcıydı: "İş dışında çok meşgul olduğumu söyledi".

S1: Gül Mehmet'in neyi yapamadığını söyledi?

A: İş bulmayı

B: Zam istemeyi

S2: Gül neden Mehmet'in zam isteyecek gücü olmadığını söyledi?

A: Yaşadıkları hayat dayanılmaz olduğundan

B: Patronundan aşırı derecede korktuğundan

S3: Mehmet nasıl niçin patronunun kendisini kovduğunu söyledi?

A: Tazminat ödemedi

B: Hiçbir duygu belirtisi olmadan

S4: Patronu neden Mehmet'i kovması gerektiğini söyledi?

A: Mehmet çalışamayacak kadar meşguldü.

B: Mehmet daha iyi şartlarda çalışmayı hak ediyordu.

IX: Geçen hafta bir magazin dergisinde Burt Reynolds'ın hayatının en unutulmaz olayını anlatımını okudum. Olay, 1945 yılının soğuk bir kış gününde kendisinin ve Clint Eastwood'un Universal Studios tarafından kovulmasıydı. Reynolds olayı şöyle anlatıyordu:

“Bana iyi oyunculuk yapamadığım bildirildi, Clint’e ise çok yavaş konuştuğu nezaketsizce söylendi; ayrıca çok büyük bir adem elması varmış. Arabalarımıza geçerken ikimizden de hiç ses çıkmıyordu. Neden sonra ben dayanamayıp Clint’i iyice kızdırmak istedim: ‘Esas senin başın dertte, Clint. Ben oyunculuk dersleri alıp durumu kurtarırım ama sen yeni bir adem elması alamazsın.’”

S1: Burt Reynolds ne zaman kendisinin ve Eastwood'un sessiz kaldığını söyledi?

A: Arabalarına geçerken

B: Kovulurken

S2: Burt Reynolds ne zaman niçin kovulduğunu söyledi?

A: Geçen hafta

B: 1945 yılında

S3: Universal Studios yöneticileri nasıl Eastwood'a konuştuğunu söylediler?

A: Yavaş

B: Nezaketsizce

S4: Reynolds neden Eastwood'un başının dertte olduğunu düşündü?

A: Çok yavaş konuştuğundan

B: Büyük bir adem elması olduğundan

X: Melis birkaç aydır biriyle birlikteydi ve artık biraz tutucu olan babası Selim’e bu haberi verme zamanı gelmişti çünkü erkek arkadaşı da kendisi de artık birbirlerinin ailelerini tanımak istiyorlardı. Fakat, Melis babasının tepkisini tahmin edemiyordu; bu yüzden korka korka annesine bir süredir gizliden gizliye biriyle beraber olduğunu söyleyip annesinden bu haberi babasına aktarmasını istedi.

Sonraki sabah, ailece mutfakta kahvaltı yaparlarken, Selim Melis'e, akşam erkek arkadaşını bir restorana davet etmesini söyledi. Bu arada annesi, Melis'in erkek arkadaşının Irak'tan yeni dönen bir denizci olduğunu duyarsa Selim'in yumuşayacağını düşündü. Gerçekten de bu Selim'in hoşuna gitmişti.

"Denizci öyle mi? İyi o zaman. Bu aldığı emirleri yerine getirecek demektir."

S1: Melis kime annesinin haberi aktarmasını istedi?

A: Babasına

B: Erkek kardeşine

S2: Melis nasıl ne kadar zamandır bir ilişkisi olduğunu söyledi?

A: Gizliden gizliye

B: Korka korka

S3: Selim nerede Melis'in erkek arkadaşıyla görüşmek istediğini söyledi?

A: Mutfakta

B: Restoranda

S4: Annesi neyin Selim'in hoşuna gideceğini düşündü?

A: Melis'in erkek arkadaşının denizci olmasının.

B: Melis'in seviyeli bir birlikteliğinin olmasının.

APPENDIX F: TEZ FOTOKOPİ İZİN FORMU**ENSTİTÜ**

Fen Bilimleri Enstitüsü

☐

Sosyal Bilimler Enstitüsü

☒

Uygulamalı Matematik Enstitüsü

☐

Enformatik Enstitüsü

☐

Deniz Bilimleri Enstitüsü

☐**YAZARIN**

Soyadı : Demir

Adı : Orhan

Bölümü : Yabancı Diller Eğitimi

TEZİN ADI (İngilizce) : The Nature of Acquisition and Processing of Island Constraints by Turkish Learners of English**TEZİN TÜRÜ** : Yüksek Lisans☒

Doktora

☐

1. Tezimin tamamı dünya çapında erişime açılsın ve kaynak gösterilmek şartıyla tezimin bir kısmı veya tamamının fotokopisi alınsın. ☐

2. Tezimin tamamı yalnızca Orta Doğu Teknik Üniversitesi kullanıcılarının erişimine açılsın. (Bu seçenekle tezinizin fotokopisi ya da elektronik kopyası Kütüphane aracılığı ile ODTÜ dışına dağıtılmayacaktır.) ☐

3. Tezim bir (1) yıl süreyle erişime kapalı olsun. (Bu seçenekle tezinizin fotokopisi ya da elektronik kopyası Kütüphane aracılığı ile ODTÜ dışına dağıtılmayacaktır.) ☒

Yazarın imzası:

Tarih: 12.09.2012