Hacettepe University Grauduate School of Social Sciences

Department of English Linguistics

THE ACQUISITION OF NULL AND OVERT SUBJECTS IN L2 TURKISH AT THE SYNTAX DISCOURSE INTERFACE ACROSS DIFFERENT LANGUAGES

Oktay ÇINAR

Ph.D. Dissertation

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ABSTRACT

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This study investigates the acquisition of null and overt subjects at the syntax-discourse interface across discourse null subject and non-null subject languages in L2 Turkish and focuses on L1 transfer effects. Considering this, the study aims to understand whether discursive constraints residing at this interface is problematic to acquire as predicted by the Interface Hypothesis in contrast to Full Transfer / Full Access Hypothesis. Framed within the Syntax before Discourse Hypothesis considerations, it also inquires whether syntactic features are acquiered earlier than discursive principles regarding the use of null and overt subject distribution.

The participants of the study consist of two learner groups and a control group. Intermediate and advanced L2 Turkish speakers of Korean and Japanese (n=42, intermediate=15, advanced=27) constitute the discourse null subject group. English and German L2 Turkish speakers at the intermediate and advanced level (n=26, intermediate=11, advanced=15) form the non-null subject group. The control group of the study is composed of native Turkish speakers (n=26).

Three tasks were employed to fetch data. The Overt Pronoun Constraint Task was designed to assess the syntactic knowledge of the L2 Turkish speakers on the formal distribution of null and overt subjects in complex sentences with quantified/wh-word or referential DP antecedent contexts. As for the latter two tasks, the Contextualized Grammaticality Judgement Task and Question-Answer Task were framed to evaluate the acquisition of discursive constraints regulating the null and overt subject distribution at the syntax-discourse interface. For each task in the study, descriptive analysis and three statistical analyses were carried out.

With respect to the findings of the study, the data taken from the the Contextualized Grammaticality Judgement Task and Question-Answer Task found that the L2 speakers of both learner groups and proficiency levels had problems in acquiring discursive constraints (topic continuity and topic shift) which govern the use of null and overt subjects. This finding is in line with the assertions of the Interface Hypothesis. Since the interface between syntax and discourse presents learnability problems, features residing at this interface cannot be fully acquired. Drawing on the languages with different typologies, the study also suggested that L1 transfer does

not hold at the syntax-discourse interface since no difference was observed between two learner groups even though the speakers of discourse null subject group have the same discursive rules in their mother tongues as in Turkish, which necessarily refutes the claims of the Full Transfer models. This study also found that topic continuity and topic shift constructions were not violated equally by the L2 Turkish speakers. Since overt subjects are more salient to perceive and carry more information than null subjects in discourse, violating overt subject constructions in topic-shift contexts is less tolerable than using redundant (overt) subjects in topic-continuity contexts.

Finally, the results of the Overt Pronoun Constraint Task found that the formal constraints that govern the co-indexation between subjects of the embedded and matrix clause were acquired by the advanced speakers of both groups despite some target deviant performances in the context of overt subjects. Since the L2 participants were more successful in this task than the discourse-bound tasks, this finding is in line with the Syntax before Discourse Hypothesis.

Keywords

Syntax-discourse interface, null subject parameter, null and overt subjects, co-reference interpretation, discursive constraints, topic continuity and topic shift

ÖZET

ÇINAR, Oktay. *Farklı Dillerde Sözdizim-Söylem Ara Yüzünde Boş ve Dolu Özne Adıllarının D2 Olarak Türkçede Edinimi*, Doktora Tezi, Ankara, 2021.

Bu çalışma ikinci dil (D2) olarak Türkçede söylem boş özne ve boş özneye izin vermeyen dillerin konuşurları üzerinden sözdizim-söylem ara yüzünde boş ve dolu öznelerin edininimi incelemekte ve birinci dil (D1) aktarımı etkilerine odaklanmaktadır. Bu bağlamda, çalışma, Tam Aktarım / Tam Erişim Varsayımının aksine, Ara Yüz Varsayımının ileri sürdüğü gibi ara yüzde bulunan söylemsel sınırlılıkların ediniminin problemli olup olmadığını anlamayı amaçlamaktadır. Söylemden önce Sözdizim Varsayımı tartışmalarıyla da şekillenen bu çalışma, sözdizimsel özelliklerin boş ve dolu öznelerin dağılımını belirleyen söylemsel ilkelerden daha önce edinilip edinilmediğini de sorgulamaktadır.

Çalışmanın katılımcıları iki öğrenici grubu ve kontrol grubundan oluşmaktadır. Orta ve ileri düzeyde D2 olarak Türkçe edinen Korece ve Japonca konuşurları (n=42; orta=15, ileri=27) söylem boş özne dil grubunu oluşturmaktadır. Bunun dışında, orta ve ileri seviyedeki İngilizce ve Almanca konuşurları ise (n=26; orta=11, ileri=15) boş özneye izin vermeyen dil grubunu oluşturmaktadır. Çalışmanın kontrol grubu ise ana dili Türkçe olan konuşurlardır (n=26).

Veri toplamak için üç test kullanılmıştır. Bunlardan Açık Adıl Kısıtlama Testi, öncülü niceleyici/ne soru sözcüğü ya da gönderimsel belirleyici öbeği olan karmaşık tümcelerde boş ve dolu öznelerin biçimsel dağılımları üzerine, D2 Türkçe konuşurlarının sözdizimsel bilgilerini ölçmek için tasarlanmıştır. Çalışmadaki diğer iki test olan, Bağlamlı Dilbilgiselik Değerlendirme Testi ve Soru-Cevap Testi ise sözdizim-söylem ara yüzünde boş ve dolu özne dağılımını yöneten söylemsel sınırlılıkların edinimini ölçmek için oluşturulmuştur. Çalışmadaki her bir test için, betimsel çözümleme ve üç istatistiksel çözümleme gerçekleştirilmiştir.

Çalışmanın sonuçlarına gelindiğinde, Bağlamlı Dilbilgiselik Değerlendirme Testi ve Soru-Cevap Testinin verileri, her iki öğrenici grubu ve seviyedeki D2 Türkçe konuşurlarının boş ve dolu özne kullanımlarını yöneten söylemsel sınırlılıkları (konu devamı ve konu değişimi) edinmede zorlandıklarını bulgulamıştır. Bu bulgu Ara Yüz Varsayımının iddialarıyla aynı doğrultudadır. Sözdizim-söylem ara yüzü, edinimde öğrenme sorunlarına yol açtığı için, bu ara yüzde bulunan özellikler tam olarak edinilemez. Farklı tipoljilere sahip diller bağlamında gerçekleşen bu

çalışma, söylem boş özne dil grubu konuşurlarının Türkçede olduğu gibi ana dillerinde de benzer söylemsel sınırlılıklar olmasına rağmen, D1 aktarımının sözdizim-söylem ara yüzünde geçerli olmadığını da işaret etmektedir. Bu da Tam Aktarım varsayımlarının iddialarını çürütmektedir. Çalışma aynı zamanda konu devamı ve konu değişimi gerçekleşimlerinin benzer derecede ihlal edilmediğini de bulgulamıştır. Boş öznelerle karşılaştırıldığında, dolu öznelerin söylemde algılanmasının daha belirgin olması ve daha fazla bilgi aktarmasından dolayı, konu değişimini işaret eden bağlamlarda dolu özne kullanmama ihlali, konu devamını işaret eden bağlamlarda gereksiz (dolu) özne kullanımı ihlaline göre daha az olasıdır.

Son olarak, Açık Adıl Kısıtlama Testi sonuçları, dolu özne bağlamında bazı ihlallere rağmen, içe yerleşik tümce ve ana tümce özneleri arasındaki eşdizimliliği yöneten biçimsel sınırlılıkların, her iki dil grubunun ileri seviyedeki konuşurları tarafından edinildiğini bulgulamıştır. Diğer söylem odaklı iki testle karşılaştırıldığında, D2 konuşurları bu testte daha başarılı olduğu için, bu bulgu Söylemden önce Sözdizim Varsayımı ile aynı doğrultudadır.

Anahtar Sözcükler

Sözdizim-söylem ara yüzü, boş özne değiştirgeni, boş ve dolu özneler, eşgönderge yorumlama, söylemsel sınırlılıklar, konu devamı ve konu değişimi

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LIST OF ABBREVIATIONS

ACC	: Accusative
ADV	: Advanced
ADV-DNS	: The advanced speakers of discourse null subject languages
ADV-NNS	: The advanced speakers of non-null subject languages
AGR	: Functional category agreement
AOR	: Aorist
C	: Functional category complementizer
CGJT	: Contextualized grammaticality judgement task
CP	: Complementizer phrase
CON	: Condition
COND	: Conditional
DAT	: Dative
DNS	: Discourse null subject
DP	: Determiner phrase
DP/null	: Referential antecedent with a null embedded pronoun
DP/overt	: Referential antecedent with an overt embedded pronoun
ECM	: Exceptional case marking
EPP	: Extended Projection Principle
EO	: Complex wh-question in which the embedded object is questioned
ES	: Complex wh-question in which the embedded subject is questioned
FocP	: Focus phrase
FTFA	: Full Transfer / Full Access Hypothesis
GEN	: Genitive
IH	: Interface Hypothesis
INFL	: Functional category inflection
INT	: Intermediate
INT-DNS	: The intermediate speakers of discourse null subject languages
INT-NNS	: The intermediate speakers of non-null subject languages

IS : Information structure

LE : Particle in Mandarin Chinese

LF : Logical form

L1 : First language

L2 : Second language

LOC : Locative

NEG : Negation

NNS : Non-null subject

NOM : Nominalization

NP : Noun phrase

NS : Native speakers

NSP : Null subject parameter

Null/A : Acceptable null subject

Null/Un : Unacceptable null subject

O : Simple wh-question in which object is questioned

OPC : Overt pronoun constraint

OPCT : Overt pronoun constraint task

Q : Question marker

QAT : Question-answer task

Overt/A : Acceptable overt subject

Overt/Un : Unacceptable overt subject

Qwh/null : Quantified/wh-word antecedent with a null embedded pronoun

Qwh/overt : Quantified/wh-word antecedent with an overt embedded pronoun

PAST : Past

PL : Plural

PRES : Present

PROG : Progressive

POSS : Possessive

PSN : Person

P&P : Principles & Parameters

PPVH	: Pragmatic Principles Violation Hypothesis
S	: Simple wh-question in which subject is questioned
SBDH	: Syntax before Discourse Hypothesis
SG	: Singular
SLA	: Second language acquisition
SPEC	: Specifier
SPSS	: Statistical Package for Social Sciences
TAM	: Tense / Aspect / Modality
TopP	: Topic Phrase
UG	: Universal Grammar
1	: First person
2	: Second person
3	: Third person
Ø	: Zero

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INTRODUCTION

The last century has witnessed a great interest on the studies of linguistics within the framework of generative grammar. With his revolutionary work, *Syntactic Structures*, Chomsky (1957) drastically shifted the emphasis from a mere description of language to an explanation of the formal systems that underlie the knowledge of native speakers. This formal perspective was further elaborated in his study, *Aspects of the Theory of Syntax* (1965), where he introduced a new theory of language acquisition and stressed the need to study language as an innate faculty that all individuals genetically possess provided that they are born into a linguistic environment. Since then, the concept of grammar has become particularly important to linguists following his tradition. Accordingly, this notion of grammar has become known to represent the linguistic competence of native speakers, as distinct from the linguistic performance. These rules are unconsciously acquired and they reside in the linguistic competence of the speakers. Therefore, studying the native speaker intuition; namely, the linguistic competence, means studying the underlying abstract rules that build the linguistic system of native speakers.

The grammar which is referred to as having abstract rules above is commonly known as Universal Grammar (UG; Chomsky, 1981). UG is the basis of all languages and this approach to language emphasizes the role of an innate language faculty. UG differs from the grammars of particular languages and it is genetically endowed abstract linguistic system that is innate to humans. It determines and constrains the range of all possible grammars in the world. Therefore, according to this approach, no grammar of particular languages can be developed independent from UG. In other words, grammars of languages can only be selected on the basis of the constraints that UG presents (Hornstein, et al., 2005).

Marking the beginning of a new era in linguistics, the theory of language mentioned above has drastically altered the way that the nature of language and language acquisition have been approached. Since then, theories have been formulated to uncover the underlying principles governing the abstract rules that individuals unconsciously represent in their minds in order to understand how human mind works on language.

The above mentioned endevaour has been followed in studies on second language (L2) acquisition. Researchers have been in interested in finding out whether L2 acquisition can be

complete or not, or which linguistic properties present certain challenges to L2 speakers. Therefore, studies have been carried out to understand how L2 speakers acquire the linguistic principles and constraints available in the target grammar across different L1 and L2 pairs. Regarding this, one of the most studied theme in L2 studies is the acquisition of null and overt subjects. Since the use of null and overt subject distribution is regulated by both syntactic and discursive constraints it is at the center of syntax-discourse interface. Framed within this perspective, the current study questions how L2 speakers of typologically different language speakers with different proficiency levels acquire the syntactic and discursive properties of null and overt subjects in L2 Turkish. Specifically, it focuses on whether null and overt subject distribution in L2 Turkish can be acquired or not at the syntax-discourse interface.

The study is organized as follows: Chapter 1 introduces the concepts and relevant studies which form the background of the current study. This is followed by the statement of the problem, the aims of the study, and the research questions.

Chapter 2 introduces theoretical concepts and reviews the literature. First, it justifies how L1 and L2 acquisition relate to the UG accounts. Following this, it gives details about the theoretical perspectives on L2 acquisition that the present study draws on. Then, details about the syntax and discourse of null and overt subjects are explicated. The final section of this chapter is devoted to Turkish, in which both the syntactic and discursive accounts that make Turkish a null subject language are discussed respectively.

Chapter 3 introduces the methodology of the study in which the participants of the study, data collection tools (tasks in the study), and the data collection procedure for the pilot and main study are explained in detail. This chapter also presents the limitations of the study.

Chapter 4 introduces the findings and discussions of the study. First, the results of each task is descriptively and statistically analysed, which is followed by a short discussion of the results for each task. Then, in the overall discussion section, the findings of each task is further elaborated and gathered together to discuss the findings at length.

CHAPTER 1

THE STUDY

This parts introduces the background of the study, which is followed by the statement of the problem, aims of the study and research questions.

1.1. BACKGROUND TO THE STUDY

1.1.1. Universal Grammar in Second Language Acquisition

Second language (L2) acquisition[1] characterizes the process in which a language is acquired after one's first language (L1). As a field of study, L2 acquisition 'investigates the human capacity to learn language(s) other than the first language' (Ortega, 2013). Considering this, researchers have been interested in understanding to what extent UG works on L2 acquisition and, if so, how UG constraints L2 and to what extent L2 is constrained by the L1 of the speakers.

Within the generative grammar perspective, the first systematic studies of L2 acquisition can be specified with the works of Corder (1967) and Selinker (1972) in which the term 'interlanguage' came into prominence, which is still employed in L2 studies (White, 2003). Interlanguage characterizes both the initial and the final state grammar development of L2 speakers. The term initial state can be described as the point where L2 learners start to develop the grammar of the target language. Initial state grammars have frequent errors either stemming from negative L1 transfer or the inability of L2 speakers to command the target grammar. On the other hand, final or end state refers to native-like attainment of the target grammar by L2 speakers. L2 end state grammars tend to suggest that acquisition is (near) complete, yet a group of researchers argue that some target features in L2 grammar might resist being acquired (see section 2.3. for the full discussion).

[1]Following the perspectives on the literature, the term 'acquisition' will be used in contrast to the term 'learning' to characterize second language development since it has been claimed that UG somewhat constrains the L2 acquisition, which can be alike L1 acquisition (White, 2003). Those who argue that L2 grammar is realized independent of UG tends to employ the term 'learning' (see the full discussion in Ayoun, 2003).

Embracing both the initial and end state grammars, the term interlanguage has been used to refer to the language of L2 speakers who are in the process of acquiring the target grammar. It has emerged with the studies suggesting that the language of L2 acquirers do not fully represent the language which adult native speakers speak; rather, it might preserve some of the linguistic features of L1. As White (2003) puts it, it might even represent certain linguistic principles as distinct from both L1 and L2. In this respect, interlanguage can be broadly defined as 'the special language' that L2 speakers are acquiring.

From the 1980s onwards, early discussions on L2 acquisition have led the researchers to ask whether UG is available to L2 acquirers as in the case of L1 acquisition or whether L1 is the only source from which L2 speakers can develop their interlanguage. Considering this question, such topics as access to UG, L1 transfer, parameter (re)setting within the framework of Principles and Parameters (P&P; Chomksy, 1981) have become the main focus. (see the full discussion in White, 2003).

Following this perspective, the early years of L2 studies were characterized by the so-called 'access' issue (White, 2003), which can be named as the availability of the UG principles in L2 acquisition. With respect to this, three different hypotheses (or perspectives) were suggested in order to account for how L2 acquisition is realized within the limits of UG and L1 or how UG and L1 are inapplicable to L2 acquisition (Cook, 1988; Cook & Newson, 1996; cited in White, 2003):

1. *No Access Position:* This position claims that UG is not available to L2 speakers. However, constrained by the UG, L1 might act on the development of L2 grammar. This means that UG only works on native grammars. Once L1 is acquired, UG is no longer accessible.

2. *Direct Access Position:* This perspective clearly states that UG is directly accessed by exposure to L2 input. In this regard, the UG principles become invariably available, either as the first grammar or as the interlanguage grammar acquired as a second language.

3. *Indirect Access Position:* This position states that both UG and L1 govern the process of L2 acquisition. Accordingly, some principles of UG can be available for L2 acquisition and the initial state of interlanguage is determined by L1 of the speakers.

Taking the above points into account, it can be argued that three positions have been the very first attempts to shed light on the issues of UG, L1 and L2 acquisition. Considering these early hypotheses, 'No Access' position is favored by the Fundamental Difference Hypothesis (Bley-Vroman, 1990), claiming that L2 acquisition is totally different from the essentials of L1 acquisition. 'Direct Access' approach is supported by the Full Transfer / Full Access Hypothesis (FTFA; Schwartz & Sprouse, 1994), arguing that L2 speakers transfer the categories and features from their L1 to their interlanguage and then access to UG to reset the parameters in later grammar development. 'Indirect Access' position is supported by The Minimal Trees Hypothesis (Vainikka & Young-Scholten, 1994; 1996) and Valueless Features Hypothesis (Eubank, 1994; 1996), both of which predict that some categories and features in L2 cannot be acquired via access to UG.

All of these positions have proponents, yet it can be claimed that the first decades of the L2 research from the perspective of generative L2 acquisition provided evidence that L2 interlanguage could not have been developed based on the L1 transfer alone; rather, UG somewhat constraints L2 acquisition (Rothman & Slabakova, 2018). Bearing this in mind, in order to reveal whether or how UG constrains L2 acquisition, different L1 and L2 pairs with different parameters have been studied in order to understand how speakers of languages with different parameters acquire the given L2 parameter (e.g. White, 1992; Clashen & Hong, 1995; Hawkins & Chan, 1997).

1.1.2. The Null Subject Parameter and Second Language Acquisition

One of the most studied themes characterizing the studies in L2 acquisition in relation to parameter resetting is the null subject parameter (NSP[2]). The NSP is a parameter as to whether subjects can be phonetically realized as null or not (Chomsky, 1981; Jaeggli, 1982; Rizzi, 1982). Regarding this, the NSP has two values. Some languages, which are named as non-null subject languages, do not allow null subjects in finite clauses as in English, German, or French. To illustrate, the sentence becomes ungrammatical in English unless an overt subject is used:

(1) *Came

[2] The NSP can also be labelled as the pro-drop parameter. Those who focus on the syntactic aspects of the parameter tend to employ the notion pro-drop parameter; on the contrary, within the L2 acquisition research area, this parameter is conventionally named as the NSP. Therefore, throughout the study, the term NSP is employed considering the nature of this study.

On the other hand, some languages, which can be described as null subject languages, allow both null and overt subjects in finite clauses, as in the case of Turkish, Spanish, or Italian. For example, in Turkish, the subject position of a tensed clause can remain either overt or null, both of which are grammatical:

(2) a. O geldi
S/he come-PAST
'S/he came'

b. Geldi
come-PAST
'Came'

In null subject languages, when null subject is employed, the empty category filling the subject position has become known as *pro* and the question of how *pro* is licensed has become one of the most studied fields within syntax. Rizzi (1982) claimed that the rich inflectional features on the verb can license *pro* since the referent of subject can be understood from the inflected verb. Therefore, it has been claimed that, as a functional category, agreement (AGR) has pronominal features and functions as a pronoun. In this respect, AGR can license the empty category *pro*. However, Huang (1984) observed that this account was defective since there are such languages as Japanese, Korean, and Chinese which allow null subjects but does not have rich inflectional agreement markers on the verb.

Considering the above discussions, the agreement markers on the finite verb in Turkish and Spanish identify the empty category *pro* whereas in Korean and Japanese *pro* is licensed by the immediate discourse. This was first raised by the work of Huang (1984) who argued that many East-Asian languages employ a different grammatical tool to leave the subject position empty. This finding suggests that despite being null subject languages, Turkish, Spanish, and Italian differ from Japanese, Korean, and Chinese in terms of licensing and identification of the empty category. Therefore, this discussion leads us to claim that there are two types of null subject languages which behave differently. Considering this, null subject languages can be grouped into two and a typology of the NSP can be drawn as can be seen below (Tomioka, 2003, p. 335):

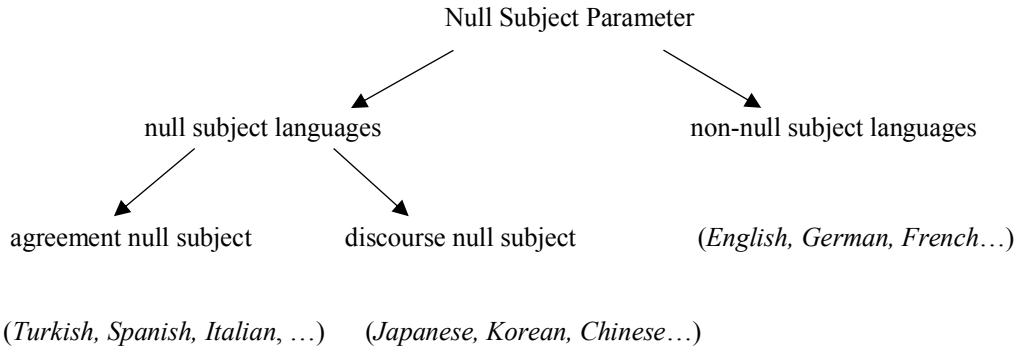


Figure 1: Typology of the null subject parameter[3]

Note that the typology given above has also been characterized by different researchers as well. For example, Wang et al. (1992, cited in Wakabayashi, 2002, p. 33) claimed that there are two parameters that distinguish these three group of languages. These are [discourse oriented] and [null pronoun]. With respect to this, Turkish, Spanish and Italian are [- discourse oriented] and [+ null pronoun] languages. Japanese, Korean, and Chinese are [+ discourse oriented] and [+ null pronoun] languages. English, German, and French [- discourse oriented] and [- null pronoun] languages. However, in order to be consistent, the typology of Tomioka (2003) has been followed throughout the current study.

Within the perspective of L2 acquisition, the typology depicted above has enabled the researchers to study the NSP across different language pairs. For example, Liceras (1988, 1989, 1996), Liceras and Diaz (1998), Tsimpli and Roussou (1991) studied typologically distinct two language pairs where the L1 had a different parameter from the L2. There are also studies on languages with similar parametric values (e.g. White, 1985; Bini, 1993). Another group of study focused on more than two language pairs (e.g. Wakabayashi, 1997; Liceras & Diaz, 1999; Kırkıcı, 2006). For example, the study of Liceras and Diaz (1999) had Chinese, Japanese, English, French, and German speakers learning L2 Spanish. For the most part, the studies on the NSP have tried to find answers to the question whether parameter (re)setting is possible or not in order to understand whether the given L2 principles have been acquired or not.

[3] Note that the original study of Tomioka (2003) employs the term Pro-Drop Parameter. It also mistakenly placed Turkish among discourse-null subject languages, yet it is evident in the literature that Turkish is an agreement-null subject language (see section 2.5.1. for the full discussion)

1.1.3. The Null Subject Parameter at the Syntax-Discourse Interface

One common theme of study with respect to the NSP has been to understand how L2 acquisition is characterized at the syntax-discourse interface (e.g. Belletti et al., 2007; Rothman, 2009). Relating to the NSP, this interface questions whether the use of null and overt subjects is appropriately used depending on certain pragmatic and discursive constraints since the choice to use either overt or null subject is not selective in null subject languages; rather, each choice is governed by strict pragmatic or discursive requirements such as topic continuity and topic shift. However, as for the non-null subject languages, the choice to use empty or overt subject is purely grounded in syntactic reasons where null subjects are simply not allowed. In other words, discursive principles at the syntax-discourse interface are not available in non-null subject languages. Therefore, researchers have been interested in understanding whether L2 learners encode and comprehend the basic units of information structure (e.g. topic continuity and topic shift) through the use of null and overt subjects when acquiring the subjects in the target grammar (Slabakova, 2013).

The syntax-discourse interface also predicts that pure syntactic constraints are acquired considerably easier than the constraints on discursive properties. This is also known as the Syntax before Discourse Hypothesis (SBDH, Flynn, 1987; Montrul, 2004; Montrul & Louro, 2006; Pacheco & Flynn, 2006; Papp, 2000; Perez Leroux & Glass, 1999; Serratrice, 2004; Serratrice, 2004 et al., 2004, Sorace, 2000, 2003, 2004, 2005 cited in Rothman, 2009, p. 968), which claims that the syntax of null and overt subjects are acquired earlier than the discursive principles residing at the syntax-discourse interface.

Given the pure syntactic considerations, the syntax of null subject languages are governed by a universal principle called the Overt Pronoun Constraint (OPC, Montalbetti 1984). This principle is a constraint on null subject languages as to the co-indexation between overt embedded subject and quantified/wh-phrase matrix antecedent. Accordingly, overt embedded pronoun must have a disjoint interpretation, which means that the referent of an overt embedded pronoun must be recovered from the immediate discourse, which cannot be co-indexed with a quantified/wh-phrase matrix subject. This is illustrated in Turkish, a null subject language, below:

(3) Herkes*i* onun*j* akıllı olduğunu düşünüyor
Everybody s/he-GEN intelligent be-NOM-3SG think-PRES-3SG
'Everybody*i* thinks s/he*j* is intelligent'

However, the same constraint is not available in non-null subject languages, where overt embedded subject can have both bound and disjoint interpretations. In other words, depending on the context, embedded subject either refers to a matrix subject antecedent or a third party in the discourse. This is illustrated in English, a non-null subject language, below:

(4) 'Everybody*i* thinks s/he*i/j* is intelligent'

Here, the embedded subject *s/he* might be co-indexed with an antecedent *everybody* or it might refer to another person in the discourse.

When the type of antecedent changes (from quantified/wh-phrase to referential subject) or null embedded pronoun is employed, both readings (bound and disjoint) are possible both in null subject and non-null subject languages (for the full discussion of the OPC see section 2.4.1.2.).

Considered as a principle of the UG, the OPC knowledge of the L2 speakers has been widely tested with different language pairs for assessing the acquisition of the syntax of the NSP (e.g. Kanno, 1997; Perez-Leroux & Glass, 1999; Gürel, 2003, 2006; Rothman, 2009). With these experimental studies, the OPC has become an important research tool. Moreover, testing the OPC knowledge has enabled the researchers to account for how the interlanguage of the L2 speakers is shaped considering the syntax of null and overt subjects. In the light of previous studies on the OPC, it can be argued that L2 learners display sensitivity to the OPC constraints, proving that the NSP parameter is reset via full access to UG (e.g. Montrul & Louro, 2006; Rothman, 2009).

As discussed above, within the perspective of null and overt subjects, the syntax-discourse interface can be considered as the central theme of the study interest in L2 acquisition, yet the results of the studies regarding how null and overt subjects are acquired differ. Some studies postulate that the interlanguage of L2 speakers converge with the native grammar, meaning that discursive principles governing the use of null and overt subjects can be fully acquired (e.g. Montrul & Louro, 2006; Gürel, 2006; Rothman, 2009). This account promotes the Full Transfer / Full Access Hypothesis (FTFA, Schwartz & Sprouse, 1994) where L2 speakers access to UG to

reset the L2 parameter and the initial state of the interlanguage is L1-constrained. On the other hand, another group of study argues that the interlanguage of L2 speakers will diverge from the native grammars considering the discursive principles on the use of null and overt subjects (e.g. Sorace, 2000; Margaza & Bel, 2006; Belletti et al., 2007). This perspective is upheld by the Interface Hypothesis (IH; Sorace and Filiaci, 2006; Sorace, 2011). The IH claims that the interface between a linguistic module (such as syntax, morphology, and semantics) and an external module (such as discourse and pragmatics) is problematic to acquire unlike the interface among pure linguistic modules such as syntax-semantics or syntax-morphology. Therefore, the IH predicts that syntax-discourse interface is potentially a vulnerable field for L2 speakers to acquire. (e.g. Hawkins & Chan, 1997; Tsimpli & Sorace, 2006, Sorace & Filiaci, 2006; Hawkins & Hattori, 2006; Tsimpli & Dimitrakopouolo, 2007).

1.1.4. Studies on the Null-Subject Parameter at the Syntax-Discourse Interface

The studies which have different orientations on the acquisition of pragmatic rules for subject distribution at the syntax-discourse interface are discussed below. The studies are given chronologically.

In an influential study, Sorace and Filiaci (2006) investigated anaphora resolution of null and overt subjects at the syntax-discourse interface across near-native L2 Italian speakers of English. As for the methodology, they employed picture verification task to fetch data. The participants were given a series of complex sentences in which the referent of complex embedded subject – null or overt – was asked either as bound to an antecedent (backward anaphora) or matrix complement (forward anaphora). Then, the participants were instructed to select the picture which represent the meaning of the embedded clause subject. They found that the anaphora of overt embedded subjects was inappropriately selected as the matrix antecedent, which they linked to processing difficulties of the combination between the syntax of null and overt subjects and contextual information as marked in topic continuity and topic shift constructions.

Montrul and Louro (2006) shed light on the debate over L2 acquisition of the null and overt subjects at the syntax-discourse interface. Their aim was to figure out whether morphosyntactic and discourse-pragmatic properties of null and overt subjects were acquired together by the intermediate, advanced and near-native English-speaking L2 Spanish learners. Therefore, this task was also framed to compare the acquisition of pure linguistic properties with the properties

residing at the syntax-discourse interface. They applied an oral production task where they asked the participants to narrate a story of the picture presented to them. Evaluated within the framework of the FTFA, the results suggested that intermediate learners were still constrained by their L1 and were not successful both in pure linguistic and interface properties. The advanced speakers were successful in morphosyntactic properties yet they have problems in discursive properties despite displaying interlanguage grammar development. On the other hand, the native-like speakers were successful in both types of properties, suggesting that pragmatics of null/overt subject distribution can be acquired, with pure syntactic features being acquired earlier than the properties residing at the interface. An important aspect of this study was the two groups of advanced speakers, one being the advanced and the other being the native-like. Although no difference was observed in terms of the acquisition of pure syntactic properties, the data fetched from their comparison resulted in differences in the pragmatics of null vs. overt subject use. As well as supporting the FTFA, the findings of their study are also in line with the claims predicting that the syntax is acquired earlier than the discourse of null and overt subjects as demonstrated by the advanced group data, hence validating the assertions of the SBDH.

In another study, Margaza and Bel (2006) investigated the acquisition of the NSP with special reference to the syntactic and discursive distribution of null subjects by the intermediate and advanced Greek speakers acquiring L2 Spanish. An important aspect of this study is that both languages have the same NSP configuration; that is, they are null subject languages. As for the first methodological tool, they fetched data from a cloze test where the L2 acquirers were asked to fill in the blanks corresponding to null subject positions by selecting the correct answer. As for the second task, a written production task, where the participants were asked to narrate their sad or happy experience, was employed. Both tests were targeted to assess the use of syntactic and pragmatic distribution of null and overt subjects. The findings suggested that L2 Spanish learners were able to use null subjects, which was interpreted as the result of L1 transfer. Another finding of the study suggested that intermediate L2 Spanish learners of Greek produced more null subjects inappropriately even though Greek is a null subject language, in which discursive constraints (such as topic continuity and topic shift) mark the null and overt subject distribution as in the case of Spanish. Further, they revealed that the advanced group did not reach a native-like competence even though they displayed some progress. Accordingly, the findings of their study suggested that L1 transfer is possible for the syntactic constraints but not possible in the domain of discourse. Although the L1 of the participants has the same discursive rules, they did not transfer the properties of their L1 into the target grammar.

Among others, Gürel (2006) investigated the L2 acquisition of null and overt subject distribution by native-like L2 Turkish learners of English to seek whether pragmatic constraints on the use of distribution of subjects can be fully attained or there might be 'residual' problems residing at the syntax-discourse interface. Furthermore, she assessed the syntactic constrains of null and overt subjects in L2 Turkish, with a special emphasis on the binding properties of the pronominal *o (s/he)*. As for the methodology, she employed four tasks to fetch data. First, she applied 'picture selection task' where the participants were asked to select which answer in the picture containing either null or overt subject pronoun is correct out of two options. The aim was to judge whether the L2 speakers can use null and overt subject distribution appropriately in answers to questions represented in the pictures. Then, in order to assess the L2 speakers' knowledge of the OPC she applied 'written interpretation task', adapted from Kanno (1997) to understand whether the syntax of null and overt subjects are acquired or not. As for the third task, she employed 'truth value judgment task', adapted from Dekydtspotter et al. (1997) and White et al. (1997), where the participants were given a context and asked to judge whether the target sentence is correct or incorrect. The sentences represented contexts in which the co-indexation between different subjects of embedded clause and matrix clause were asked. The aim was to understand whether L2 speakers bind embedded *o(s/he)* to matrix antecedent, which she claims does not hold in Turkish. For the final task of the study, in 'picture identification-listening task', participants listened a text and were asked to judge whether the sentence they read and the picture given to them match or not. In the same vein, the aim was to assess the performances of L2 speakers on the acquisition of co-interpretation between null and overt embedded pronouns in the context of antecedent lexical subjects. The findings of the study invoked the FTFA in contrast to predictions made by the IH on the grounds that the advanced L2 Turkish learners were found to master the pragmatic features of null and overt subject pronouns. As for the syntactic constraints, however, the participants as she put it, 'had difficulty in acquiring the binding properties of the overt pronoun *o (s/he),*' which she linked to L1 transfer. The reason why the L2 learners were not able to acquire the overt embedded pronoun *o (s/he)* makes her have a claim on the idea that the OPC is not a universal feature of null subject languages since *o (s/he)* cannot be bound by any antecedent[4]. Thus, she claimed that English-speaking L2 Turkish speakers interpreted *o (s/he)* as bound to a referential pronoun, which was justified by L1 transfer on the grounds that the third person pronoun in English might be bound to a referential antecedent as well.

[4] The present study, on the other hand, challenges this idea by postulating that the OPC is a universal feature of null-subject languages on the grounds that the overt embedded subject in Turkisg can be bound to DP matrix subject (for the discussion that the OPC is operative in Turkish see section 2.5.1.4.)

Parallel to findings of Margaza and Bel, Belletti et al. (2007) also claimed that the pragmatics of overt subjects is vulnerable for L2 speakers across near-native L2 Italian speakers of English. By employing a picture verification task, they intended to test the syntax-discourse interface. Considering this, the participants were given a sentence, accompanied by three pictures which ask for the antecedent of the embedded subject as either the matrix subject, complement of the main clause, or external referent. Accordingly, the use of null subject is pragmatically correct when the subject of the embedded clause refers to the same person as in the matrix clause. Considering the results, the findings of their study suggested that the advanced L2 speakers of Italian did not have any problems about the syntactic constraints since they did not apply ungrammatical constructions. On the other hand, with respect to the discursive constraints, the participants were not sensitive to the pragmatic distribution of null and overt subject pronouns, particularly, in the use of overt subjects, where they interpreted overt subjects in topic shift contexts as bound to matrix subject inappropriately. Thus, they concluded that the properties at the syntax-discourse interface is problematic.

Likewise, Roberts et al. (2008) investigated the offline and online pronoun resolution in L2 discourse across L2 Dutch speakers whose first language was either Turkish or German in order to understand the influence of L1 and processing effects. The task was composed of two parts. In the first task, participants were asked to resolve the potentially ambiguous overt pronouns – whether they are co-indexed with an antecedent or not. They reported that, in their native language, Turkish speakers would normally interpret the overt pronouns as having an external referent rather than bound by an antecedent. Accordingly, they found that the Dutch L2 speakers of Turkish had a high preference for interpreting the overt pronouns to have a sentence external referent unlike the control group and German speakers. Thus, they linked this finding to L1 transfer. As for the second task, participants were asked to read contextualized sentences in an eye-tracking experiment to resolve the reference of overt pronouns. Unlike the first experiment, when the context was presented, both the Turkish and German speakers differed from the control group of Dutch speakers. Therefore, the researchers claimed that the resolution of overt pronouns is particularly problematic in discourse-dependent online tasks independent from L1 of the participants.

In a similar vein, Sorace et al. (2009) carried out a study on Italian-English and Italian-Spanish bilinguals and monolingual English and Italian children to understand the effect of exposure to Italian by comparing the bilinguals and to test the cross-linguistic influence. They employed a contextualized grammaticality judgement task in which the participants were asked to read a story

on short animations both in English and Italian and then asked to choose either null or overt subject in [- topic shift] and [+ topic shift] contexts. When the discourse function requires [+ topic shift] context, the use of overt subject is pragmatically correct; that is, an overt subject is required since the topic changes. On the other hand, when it requires [- topic shift] context, the use of null subject becomes appropriate. Accordingly, some of the sentences the participants read were pragmatically odd whereas some of them were pragmatically correct. Given the results, the findings of the study suggested that both bilingual and monolingual speakers overaccepted the use of overt subjects even when the context is [- topic shift], which requires a null subject. This finding revealed that syntax-discourse interface is a vulnerable field both in bilingual and monolingual children.

In another study, considering the distribution of null and overt subject pronouns in English-speaking L2 Spanish learners, Rothman (2009) investigated the syntax-discourse interface in order to figure out whether it is problematic to acquire as predicted by Sorace (2004) or not. In order to test it, he employed a 'co-reference interpretation task' which was adapted from Kanno (1998) to assess the OPC knowledge of the English speakers. The findings of this task suggested that L2 learners were identified to be able to reset the NSP and this means that the ability to use null subjects in L2 Spanish can be acquired. Contrary to other studies, but in line with Perez-Leroux and Glass (1999), he observed individual differences in the L2 intermediate data; accordingly, he grouped the intermediate speakers into two: those who were successful in the OPC task and those who were not. He found out that the second group of intermediate speakers and the advanced speakers reset the NSP parameter. Therefore, those who passed this task were taken to other two tests which evaluate the pragmatic knowledge of the null and overt subjects at the syntax-discourse interface. The tasks were 'pragmatic context-matching felicitousness judgment task' where the participants were asked to determine whether the contextualized sentences they read is pragmatically anomalous or not, and 'pragmatic context translation task', where the speakers were asked to translate the English sentences into Spanish after reading contextualized stories. In both tasks, participants were expected to accept and use either null or overt subject appropriately depending on the context. The findings of the given tasks set forth that the intermediate group either overused or underused the null and overt subjects contrary to the advanced and control group. Therefore, it could be claimed that the intermediate learners were not aware of the pragmatic distribution of the null and overt subjects but they are able to use null subjects. As he put it, the findings suggested that 'L2 learners became sensitive to the syntax of null subjects well before they became sensitive to their pragmatic distribution' (p. 966), favoring the SBDH. Unlike what Sorrace (2004), and Montrul and Louro (2006) claimed, Rothman (2009)

suggested that syntax-discourse interface is not particularly vulnerable field since advanced speakers displayed native-like competence concerning the discursive properties of null and overt subject distribution. However, despite target like achivement of the L2 speakers, he noticed difficulties in acquiring the pragmatics of null and overt subjects.

Quesada and Blackwell (2009) investigated the L2 acquisition of discursive constraints on the null and overt subjects in L2 Spanish by English speakers. The participants of their study involved speakers at the beginning, intermediate, and advanced proficiency levels. In order to gather data, they asked the participants to complete four different oral narratives. Then, the researchers transcribed the oral narratives and examined the uses of null and overt subjects according to the five pragmatic contexts: salient referent (referent of the subject does not differ from the previous discourse), switch focus (referent of the subject differs from the previous discourse), contrastive focus (referent of the subject is contrasted with another referent in the discourse), pragmatic weight (it refers to subject of the verbs of claiming, belief, opinion, knowledge, and emotion) and epistemic parentheticals (it refers to subject of the verbs such as know, speak, and see). The results of their study suggested that the intermediate learners did not produce overt subjects in order to express switch focus function compared to the advanced level. Likewise, the beginning and intermediate level did not acquire to produce overt subjects to express epistemic parenthetical function. They further added that even at the advanced proficiency level, speakers tended to use overt subjects when the referent of the subject is easily recoverable from the context. Considering these results, they argued that pragmatic properties residing in null and overt subject distribution are problematic to acquire.

In another study, Lozano (2016) studied the anaphora resolution of null and overt subject pronouns at the syntax-discourse interface by the ‘very advanced’ English L2 Spanish speakers. The data were fetched from a learner corpus as compiled by the researcher himself containing 800,000 words from 1,500 L2 participants. Accordingly, the pragmatic constraints were evaluated in the sentences. The results displayed that pragmatic violations were available in the L2 data, suggesting deficits in the acquisition of discursive constraints. An important aspect of this study is the claim that not all pragmatic principles (such as topic continuity and topic shift) are violated equally, which led him to propose the Pragmatic Principles Violation Hypothesis (PPVH). Accordingly, L2 speakers commit more violations in terms of redundant use of overt subjects in topic continuity contexts than inappropriate overt subject use in topic shift contexts.

In more recent version of his study, Lozano (2018) researched into the same phenomena with different language pairs which has the same NSP configuration across the intermediate, lower advanced, and high advanced Greek speakers of L2 Spanish. As for the methodology, he employed acceptability judgement task in three contexts: topic continuity, contrastive focus, and emphatic context. Participants were given contextualized complex sentences which questioned the resolution of pronominal null and overt subject with the possible antecedents in the context according to the given pragmatic constraints. The findings of the study demonstrated that L2 speakers overused overt subjects even at the advanced level despite having interlanguage grammar development. Accordingly, he concluded that the similarities in L1 and L2 pairs in terms of employing the same discursive constraints do not operate at the syntax-discourse interface. Overall, the recent studies of Lozano (2016; 2018) provided valuable contribution to the field on the grounds that each study employed L1 and L2 pairs which have different and same NSP configurations. As for the different L1-L2 pairs, the first study had L1 English-L2 Spanish participants whereas the second study had L1 Greek-L2 Spanish participants, which represent the same NSP values.

In more recent study, Margaza and Gavarro (2020) studied null and overt subject distribution across different pragmatic constraints. Their study had two groups: L2 Spanish learners of Greek and L2 Greek learners of Spanish, both of which were at the intermediate and advanced level. They employed multiple choice tasks, both in L2 Spanish and L2 Greek, which they evaluated in contrastive and non-contrastive contexts. They asked the participants to select the appropriate subject – null or overt – for the missing parts (corresponding to subject position) of the contextualized target sentences. As for the results, they compared the findings in accordance with the claims held by the IH. Interestingly, they found asymmetry in the results. It seemed that L2 Spanish speakers were not fully sensitive to the discursive distribution of subjects – yet they had certain success. On the other hand, L2 Greek speakers fully attained the use of null and overt subjects in contexts which render them acceptable, which certainly refutes the possible detriments at the syntax-discourse interface.

Çeltek (2020) investigated the acquisition of first person null and overt subjects across five pragmatic contexts (salient referent, switch focus, contrastive focus, pragmatic weight, and epistemic parentheticals) parallel with the Quesada and Blackwell (2009) in L1 Greek - L2 Turkish context by the advanced participants. The data were fetched by data elicitation through oral narrative and the given pragmatic contexts were investigated in accordance with whether subjects were appropriately used or not. The results of the study indicated that the L2 speakers

were sensitive to discourse-pragmatic constraints that regulate the null and overt subject distribution.

The above discussions lead us to argue that only when the syntactic and discursive constraints are acquired together, one can indicate that L2 acquirers attain at the NSP (White, 1989). Therefore, it can be claimed that the interlanguage of L2 speakers must be sensitive to both syntactic and discursive constraints for this parameter to be reset. Concerning this, a number of studies assessing the null and overt subjects at the syntax-discourse interface have been discussed above. A group of study argued that the L2 acquisition of discursive constraints such as topic continuity and topic shift is a 'vulnerable' field, which cannot be fully acquired as predicted by the IH (e.g. Sorace & Filiaci, 2006; Tsimpli & Sorace, 2006; Belletti et al., 2007, cited in White, 2011, p. 580). Despite the claims that the interface between syntax and discourse presents difficulties in L2 acquisition, another group of study found that the interlanguage of L2 speakers is fully sensitive to the discursive constraints regulating the null and overt subject distribution. In other words, L2 knowledge of these constraints can converge with the native grammar (e.g. Montrul & Louro, 2006; Gürel, 2006; Rothman, 2009, Çeltek, 2020). This point of view favors the FTFA since discursive constraints will be attained in end-state grammars and L2 speakers might transfer L1 discursive features in their initial grammar development.

Apart from this, studies testing the OPC knowledge of the L2 speakers suggest that the syntax of null and overt subjects are acquired via access to UG and individuals attain at a native-like competence at the advanced proficiency level. This point is raised by the SBDH, claiming that syntax is acquired earlier than the pragmatic distribution of null and overt subjects at the syntax discourse interface.

1.2. STATEMENT OF THE PROBLEM

Considering the relevant literature on the use of null and overt subjects at the syntax-discourse interface, the results of the studies had different directions: The first group of study postulates that the knowledge of discursive principles can be attained at the advanced level whereas another group of study proposes that syntax-discourse interface is potentially a vulnerable field and linguistic features belonging to this interface can never be attained even at the advanced proficiency level. Therefore, a study on L2 Turkish will shed light on the debate whether discourse-bound distribution of null and overt subject use can be fully acquired or not.

Furthermore, the above-mentioned studies have drawn on language pairs belonging to different values with respect to the NSP (e.g. L2 speakers with a non-null subject language acquiring a null subject language or vice versa). As a matter of fact, some studies were even carried out over languages with the same NSP configuration (e.g. Margaza & Bel, 2006; Lozano, 2018; Margaza & Gavarro, 2020). However, no such study has drawn on the typology of the NSP (see Figure 1) to study languages across the arguments over access to UG, L1 transfer and syntax-discourse interface when the L2 acquisition of null and overt subject issue is taken into account. The given typology allows us to compare languages with different values in order to capture certain generalizations about how L2 acquisition is characterized. Therefore, a study which will employ different language pairs regarding the given NSP typology will contribute to current debates over whether syntax-discourse interface is problematic or not for the selected language pairs and whether L1 transfer holds at this interface or not.

Moreover, given the research on L2 Turkish, very few studies have been carried out to assess the performances of the L2 Turkish learners on the syntactic and discursive distribution of null and overt subjects. To give an example, Kırkıcı (2006) studied the acquisition of the NSP in L2 Turkish speakers across different language groups in order to understand how the speakers acquire the formal values of the NSP, namely, *that*-trace effect and subject-verb inversion. In her study, she did a specific reference to discourse null subject languages to include them to her study yet she did not study the discursive properties of null and overt subject distribution. On the other hand, Gürel (2006) and Çeltek (2020) studied syntax-discourse interface phenomenon in L2 Turkish. Both of them postulated that the advanced L2 Turkish speakers acquired the null and overt subject distribution - yet their research design and participants were completely different and they did not include the intermediate speakers to discuss interlanguage grammar development. Although their study have contributed a lot to current discussions from the L2 Turkish context, the results should also be tested with different language pairs which have different proficiency levels and with different methodologies to capture certain generalizations.

Bearing these points in mind, when the very few Turkish studies on this topic is pondered, it can be argued that a study on L2 Turkish across different language pairs which also include different proficiency levels concerning the NSP typology is needed. As Turkish is an agreement null subject language, the performances of the L2 Turkish acquirers of other groups of languages; namely, non-null subject language and discourse null-subject language speakers, will contribute to the field with the L2 Turkish data. In this way, current discussions about how L2 acquisition is characterized among agreement null subject languages, non-null subject languages and discourse

null subject languages will be established. Therefore, new language pairs should be studied in order to understand whether discursive properties can be fully acquired by the L2 speakers or not.

1.3. AIMS OF THE STUDY

The main purpose of the study is to understand whether discursive constraints on the use of null and overt subject distribution at the syntax-discourse interface in L2 Turkish can be acquired or not. There are two hypotheses which hold opposing views. Interface Hypothesis (IH) proposes that linguistic features residing at the syntax-discourse interface is problematic to acquire whereas Full Transfer / Full Access Hypothesis (FTFA) holds that ultimate attainment of the linguistic features at this interface is possible. Considering the typology of the NSP, Turkish is an agreement null subject language in which *pro* is licensed by the agreement markers on the verb. Therefore, a study on L2 Turkish speakers whose first language is either discourse null subject (languages which allow null subjects but not having agreement markers on the verb) or non-null subject (languages which do not allow null subjects) type might provide valuable data to figure out which hypothesis is valid in the case of L2 Turkish (for details about the learner groups in the study see section 3.1.2). In this way, data from the two groups of L2 Turkish speakers with different proficiency levels will enable us to compare the performances of each group and proficiency level with the native Turkish speakers. By doing so, it will be made explicit which group of L2 acquirers of Turkish supports or disproves the hypotheses explained above, providing us with comprehensive data to contribute to ongoing discussions from the L2 Turkish context. If a group has successfully acquired the null and overt subject distribution, this finding will be interpreted as supporting the FTFA. If not, the result will be interpreted as favoring the IH.

The study also aims to compare the performances of the intermediate and advanced L2 Turkish speakers of discourse null subject and non-null subject languages among themselves to understand which L2 Turkish group / proficiency level is more successful in acquiring the discourse-bound nature of null and overt subjects in Turkish. By doing so, possible influences of the first language (namely, L1 transfer) on L2 acquisition and interlanguage grammar development will be discerned. As stated before, in regard to the NSP typology, both discourse null subject languages and agreement null subject languages employ null subjects yet the difference lies in the licensing and identification of the empty category *pro*. On the other hand, non-null subject languages do not employ null subjects in finite clauses. Therefore, it might be hypothesized that L2 speakers of discourse null subject languages will be more successful than

non-null subject languages in acquiring the discursive constraints of null and overt subject distribution since the very same discursive constraints exist in discourse null subject languages. Yet, some studies claimed that L1 transfer does not work on the acquisition of discursive properties. For example, the study of Margaza and Bel (2006) found out that the L2 Spanish learners of Greek were not fully sensitive to pragmatics of null and overt subject use even though both languages allow null subjects. Considering this, since no such study has taken the given NSP typology before, the comparison of the performances between two groups of languages will provide valuable data about the possible influences of L1 transfer. If the discourse null subject group is more successful than the non-null subject group, the results will be interpreted with regard to L1 transfer; otherwise no L1 transfer will be detected.

Another aim of the study is to understand whether syntactic constraints are acquired earlier than discursive features governing the use of null and overt subject distribution by the intermediate and advanced L2 Turkish speakers. For example, Rothman (2009) found out that some L2 Spanish learners of English were successful in the OPC task which assess the syntax of null and overt subjects. On the other hand, only at the advanced level, the L2 acquirers had target like performance in discourse-bound tasks. The results evidently displayed that syntactic acquisition had been completed before the discursive principles were acquired. Considering this study, if the L2 Turkish acquirers are more successful in a task which evaluate the syntactic acquisition of null and overt subjects than the tasks assessing the acquisition of discursive principles starting from the intermediate proficiency level, the results will be explicated as supporting the Syntax before Discourse Hypothesis (SBDH, for details about the tasks in the study see section 3.2.).

The study also aims to understand how topic continuity and topic shift, as basic concepts of information structure, are acquired respectively by the intermediate and advanced L2 Turkish acquirers. As the studies on information structure on the use of null and overt subject distribution demonstrated (e.g. Givon, 1983; Ruhi, 2002), the choice to use either overt or null subject relates to the topic continuity-topic shift articulation. That is, topic continuity is indicated by null subject use whereas overt subject is used when the topic shifts. Considering this, since the information packaging of topic continuity-topic shift realization is reflected as either null or overt subject, the study addresses this aim to assess and compare the performances of L2 Turkish speakers on topic continuity and topic shift constructions respectively to understand which construction(s) is/are problematic to acquire and if so, for which group(s) it applies to. Beyond any doubt this will provide valuable data on the debate over syntax-discourse interface.

The final aim of the study is to understand how topic continuity and topic shift are realized as answers to simple and complex wh-questions which target the subject and object of the sentence Therefore, this aim is framed to figure out how discursively distributed null and overt subject use is acquired by the L2 speakers. Bearing this in mind, it also questions whether the position of subject either in the complex embedded clause or simple clause as answers to subject and object wh-questions has an influence on the acquisition of topic continuity and topic shift constructions. By doing so, it tries to understand whether the performances of L2 acquirers on the realization of these contexts change relative to the position of subject or not.

1.4. RESEARCH QUESTIONS

In accordance with the above mentioned aims the following research questions can be given:

1. Do the L2 Turkish learners of discourse null subject and non-null subject languages acquire the discursive constraints on the use of null and overt subject distribution at the syntax-discourse interface at the intermediate and advanced proficiency level?

2. What are the possible influences of L1 transfer on L2 acquisition in terms of discursive constraints of null and overt subject distribution among the intermediate and advanced L2 Turkish acquirers of discourse null subject and non-null subject languages?

3. Are syntactic constraints acquired earlier than the discursive features governing the use of null and overt subject distribution among the intermediate and advanced L2 Turkish learners of discourse null subject and non-null subject languages?

4. Are there any constraints for the intermediate and advanced L2 Turkish speakers of discourse null subject and non-null subject languages in acquiring such discursive constraints as topic continuity and topic shift?

5. Do the intermediate and advanced L2 Turkish speakers of discourse null subject and non-null subject languages interpret topic continuity and topic shift constructions appropriately in answers to simple and complex wh-questions which target the subject and object of the clause? Does the position of subject either in the complex embedded or simple clause constrain the acquisition of topic continuity and topic shift constructions?

CHAPTER 2

THEORETICAL CONCEPTS

In this section, detailed information on theoretical concepts and relevant studies are given to have a better understanding of the acquisition of null and overt subjects in L2 Turkish with respect to the syntax-discourse interface. In order to realize this, firstly, the whole theoretical concepts which characterize L2 acquisition are elaborated. Then, the null subject parameter (NSP) is further explained with a special emphasis on the studies carried out on the syntax and discourse of null and overt subjects. Following this, the grammatical and discursive features which make Turkish a null subject language is explained.

2.1. UNIVERSAL GRAMMAR AND FIRST LANGUAGE ACQUISITION

Universal Grammar (UG) is a genetically innate language faculty which delivers humans a particular grammar and which determines the type of grammars that can be found in the world (White, 2003). With respect to this, the theory of Principles and Parameters (P&P) was put forward by Chomsky (1981) as a framework to account for and justify how infants acquire language effortlessly. Adopting the perspective of the P&P framework on L1 acquisition, quite a number of studies have been carried out by various researchers in order to understand how L1 is acquired (e.g. Mehler et al., 1988; Jusczyk et al., 1993). Overall, these studies have been addressed to figure out how infants acquire language starting from the very first months up until their full command of language. More specifically, the focus is on how infants produce and comprehend language, which steps they go through, and which errors they systematically make.

One can claim that studies on L1 acquisition have focused on understanding how infants trigger their innate knowledge of language and how they build their own language-particular system by accessing to UG. Considering this, as part of UG, the P&P framework claims that there are constant principles that are true across languages, which all languages share and there are parameters that make languages different. To give an example, Chomsky (1981) formulated the Extended Projection Principle (EPP) as a universal principle which states that all finite clauses must have subjects to capture the fact that there is no such language in the world which does not employ subjects. In other words, EPP is a linguistic principle that all languages hold. On the other

hand, parameters are characterized by dual or binary features, which are values that are triggered on the basis of the linguistic evidence. During the acquisition process, infants who are exposed to linguistic input select the correct parameter characterizing their own language. To illustrate, the null-subject parameter (NSP), offers binary values for languages to select. These are [+ null subject] or[- null subject]. On the basis of the evidence from particular grammars, infants select one of the two values that fits their own language. Therefore, it can be claimed that acquiring a language is about setting the correct parameters.

Known as Plato's Problem, the question how infants come to acquire language successfully despite being exposed to limited input is one of the topics that has inspired great interest in the field (Hornstein et al., 2005). Regarding this, the poverty of the stimulus or limited input that infants are exposed to can be given as the evidence that L1 acquisition is realized within the limits of UG. The problem is that the very first words infants hear are simple utterances consisting of subject and verb which denote simple events. This means that the linguistic input cannot be responsible for the ultimate grammatical knowledge that infants possess alone (Guasti, 2002). Contrary to this, children can produce novel utterances and highly complex structures that they have not heard before. Likewise, these structures have abstract rules which cannot be solely accounted by the 'primary linguistic data' of the infants (Chomsky, 1965, p. 23). Furthermore, independent of their cognitive abilities, all infants who are exposed to linguistic input go through the same acquisition stages and by the end of five, infants fully command the language they acquire as adult native speakers do (Guasti, 2002). Regarding this, Kennedy (1973, pp. 68-69) put it as follows:

> No two children are exposed to the same primary linguistic data, or the same amount of such data, and yet despite such different experience and wide differences in intelligence, almost all children are able to crack the code of the linguistic system of their culture and learn to understand and produce sentences.

Given the above quote, the quality of the linguistic input does not necessarily deliver the infants the ability to acquire language; rather, acquiring language is fully governed by the UG constraints no matter how poor or rich the quality of the input is.

Overall, the fact that human beings can acquire language irrespective of the linguistic input is based on the theory of UG. The theoretical motivation of L1 acquisition is simply that human beings are biologically endowed with an innate language capacity. Therefore, L1 acquisition is

said to be assisted by the innate language faculty. This means that children can acquire language effortlessly by triggering the innate linguistic knowledge provided that they are born into a linguistic environment.

2.2. UNIVERSAL GRAMMAR AND SECOND LANGUAGE ACQUISITION

Starting with the 1980s, L2 acquisition studies have developed in methodology and second language acquisition (SLA) have become an interdisciplinary field incorporating the knowledge and researches from such disciplines as psychology, education, and teaching (Ortega, 2012). With theoretically different positions, on the one side, L2 acquisition studies followed the P&P framework and considered the acquisition process somewhat UG-governed (e.g. White, 1989). Within this perspective, the field can also be called 'generative second language acquisition' as the approach depends on the UG accounts. On the other hand, another group of study considered the L2 acquisition process as part of human cognitive development, claiming that learning a second language is highly complex process involving special experience, attention and effort (e.g. Krashen, 1985; McLaughlin, 1987). This suggests that 'learning' a second language is totally different from L1 acquisition; hence, there might be great individual differences in L2 'learning' as the purposes and motivations of developing L2 alter individually.

Broadly speaking, although studies following the perspective of generative L2 acquisition does emphasize the fact that there might be subtle individual differences (for full discussion see White, 2003), these variations do not stem from cognitive, sociological and psychological issues; rather, as in the case of L1 acquisition, L2 speakers need to have access to abstract rules which constrain the language they attempt to acquire or they need to transfer the categories, features, and values of their UG-constrained L1 to develop a new language.

As discussed before, primary linguistic data cannot account for the complex linguistic structures produced by children; hence, the term logical problem of L1 acquisition has been put forward. When it comes to the SLA, there are two perspectives pertaining to the discussions of logical problem of L2 acquisition. A group of researchers argue that there is no such thing as a logical problem of L2 acquisition (e.g. Bley-Vroman, 1990; Schacter, 1990) since the problems of L2 speakers are handled by their already existing native language grammars. In other words, the mismatch between the linguistic input and the ultimate grammar developed by L2 speakers is resolved with reference to their L1. On the other hand, those who follow the view that UG also

governs and constrains L2 acquisition claims the logical problem of L2 acquisition to be an important evidence that L1 and L2 acquisition are somewhat similar processes (e.g. Schwartz, 2004).

In this respect, Rothman and Slabakova (2018) claimed that generative language acquisition 'is powered by the logical problem of L1 acquisition and how it relates to L2 acquisition' (Schwartz, 1998; White, 1989). The problem is that the input that L2 speakers acquire cannot justify the abstract rules which shape their interlanguage. In other words, L2 speakers attain a grammar which cannot be merely accounted for with the linguistic input they are exposed to. Since the rules are so abstract, these cannot be taught explicitly in classrooms and cannot be consciously deduced from the input alone, which White (2003, p. 22) characterizes as 'input and output mismatch'. She further argued that the Overt Pronoun Constraint (OPC, for L2 studies on the OPC knowledge see section 2.4.1.2.) can be given as an example to support this view in which L2 learners unconsciously apply this constraint to their target grammar even though the OPC is not formally taught in classrooms.

Taken all together, it is obvious that L1 and L2 acquisition are different processes. L1 acquisition is a quick and unconscious process where L1 acquirers do not need to make an effort to attain their grammar, whereas L2 speakers consciously spend time learning the language mostly by attending a formal course (Ayoun, 2003). Likewise, L2 speakers have already acquired a language before and they might refer to their L1 by unconsciously transferring the categories, features and values of their L1 to their target grammar. Furthermore, L2 learners might access to UG to acquire the structures available in their L2. However, with respect to L1 acquisition, the acquirers can only arrive at the UG principles and constraints available to them.

2.3. THEORETICAL PERSPECTIVES ON SECOND LANGUAGE ACQUISITION

The studies on L2 acquisition can be characterized at least from three theoretical perspectives or foci, all of which have been studied with great interest and continue to be current topics. Following, the studies with different but complementary orientations are summarized:

2.3.1. Access to UG, L1 Transfer, and Parameter Re(setting)

From the 1980s onwards, the question of how UG and L1 relate to L2 acquisition have been widely researched and this theme of research still carries on. The first representative and experimental study in relation to these issues was conducted by White (1985). She studied parameter resetting in relation to the NSP. As stated before, the NSP determines the variation between languages in terms of subject use. The participants of her study consisted of Spanish and French L2 learners of English. English and French are non-null subject languages while Spanish is a null subject language. As a methodology, she asked grammatical judgements relating to English sentences to her two groups of participants. The finding of the study displayed that Spanish learners employed more null subjects than French speakers did. This indicated that Spanish learners transferred the features of the NSP from their language, causing transfer errors while French speakers were more successful in interpreting English sentences as a result of transferring the L1 option into their interlanguage.

In what follows, the whole theoretical positions characterizing the L2 acquisition process, which have been studied by different L2 researchers, are discussed. These perspectives deal with the issues as to what extent UG is accessed, L1 transfer is possible and parameter (re)setting takes place in initial and later grammar development. As discussed in the previous section, the earlier studies on the access issue suggested that there were three options applicable to L2 studies, which are Full Access, Partial Access, and No Access. However, as White (2003, p. 93) puts it, other 'logically possible combinations' have been proposed by different researchers. Regarding this, Sauter (2002) lists six theoretical positions, which are summarized below:

2.3.1.1. No Transfer / No Access

This position claims that L2 acquisition is different from L1 acquisition. Therefore, the interlanguage of L2 speakers are claimed to be totally different from the UG-based grammars (e.g. Clashen & Hong, 1995; Neelman & Weerman, 1997). In this sense, the target grammars can be considered as 'wild grammars' (Goodluck, 1991; Klein, 1995; White, 2003), since they are not governed by the principles of UG. This means that the interlanguage grammars represent neither the UG principles nor the L1 categories and features. Considering this, an L2 learner might develop a special linguistic construction during the interlanguage grammar development which is not available to L1 or L2 or any natural language in the world. For these reasons, it can be

argued that L1 transfer cannot intervene with L2 acquisition process as it is also constrained by the UG principles.

2.3.1.2. No Transfer / Full Access

As discussed by White (2003), the term 'direct access' is replaced with the term 'full access' starting with the second decade studies of L2 acquisition. Accordingly, this position argues that UG is directly accessed starting from the very early stages of interlanguage development (e.g. Flynn & Martohardjono, 1994; Flynn, 1996; Epstein, et al., 1996, 1998). L2 speakers have access to features and values of lexical and functional categories in L2 via UG, where the parameters are reset initially and L2 speakers acquire the parameters of L2 on the basis of the L2 linguistic input. Exposure to L2 input triggers the UG principles as in the case of L1 acquisition.

2.3.1.3. Partial Transfer / Full Access

This position is characterized by two hypotheses. The first one is The Minimal Trees Hypothesis (Vainikka & Young-Scholten, 1994; 1996). It claims that lexical categories are transferred earlier during the interlanguage grammar development; however, functional categories are acquired with full access to UG. In other words, parameters involving functional categories are reset by full access to UG whereas parameters are set on the basis of L1 for lexical categories.

Another hypothesis supporting this view is the Valueless Features Hypothesis (Eubank, 1994, 1996) According to this view, lexical and functional categories and some features of L1 are transferred and UG only works on those features in L1. Features are transferred from L1 as 'inert' (White, 2003), which means that the values of features are acquired later in the interlanguage development. To give an example, wh-questions in English has strong feature and it has to be overtly moved to [Spec, CP] to check the strong feature of C (Carnie, 2007) whereas Turkish is known as a *wh-in-situ* language (Akar, 1990), which means that wh-questions do not move in overt syntax. Regarding this, it can be argued that feature strength of wh-questions in both languages differ. Thus, one can assume that the L2 Turkish speaker of English will not transfer the feature strength of wh-construction in L2 Turkish. In other words, the L2 Turkish speaker is expected to produce *wh-in-situ* constructions in the later grammar development via access to UG.

2.3.1.4. Partial Transfer / No Access

This position is characterized with the study of Eubank et al. (1997). According to this view, functional categories as to the feature strength cannot be transferred from L1 while lexical categories can be transferred. It further hypothesizes that UG becomes not fully available to L2 speakers, which means that there might be 'wild' interlanguage grammars. The position is more strong version of the Valueless Features Hypothesis which can also be labelled as Local Impairment Hypothesis (White, 2003, p. 86).

2.3.1.5. Full Transfer / No Access

The Full Transfer / No Access debate states that L1 is the only source of knowledge for L2 speakers to build their L2 grammar and UG only works on those features in L1 (e.g. Bley-Vroman, 1989; Schachter, 1990). This debate is known as Fundamental Difference Hypothesis (Bley-Vroman, 1990). Therefore, the term 'learning' rather than 'acquisition' is used to refer to L2 since only L1 can be realized within the limits of UG. Regarding this, the hypothesis claims that L1 and L2 acquisition processes are different in nature. UG is once accessed via L1 acquisition and then it is closed to further access in L2 acquisition. In other words, L2 is acquired on the basis of native language grammar, which is constrained by UG. Therefore, the theoretical position of this debate is different from the 'wild grammars' discussed in No Transfer / No Access debate. 'Wild grammars' can never be constrained by the principles of UG, whereas this point of view clearly states that UG constrains L2 acquisition via L1. Thus, no parameters are reset but only already existing L1 parameters are set.

2.3.1.6. Full Transfer / Full Access

Originated in the work of Schwartz and Sprouse (1996), Full Transfer / Full Access Hypothesis (FTFA) has been one of the most widely studied and influential position within the studies on L2 acquisition. The hypothesis claims that the early interlanguage grammar development is based on L1 grammar. In other words, L2 learners start with their L1 grammar to acquire the L2 constructions. Later grammar development involves full access to UG when L2 speakers are exposed to sufficient amount of L2 input. Regarding this debate, initially L1 parameters are selected and parameters are reset via full access to UG in later interlanguage grammar development. The evidence for the full transfer is usually understood from the studies when L2

learners of different L1 languages apply different linguistic constructions and representations in the same target language (Schwartz & Sprouse, 2000).

All in all, the perspectives described above try to account for how L1 grammars shape interlanguage grammars and how UG works on L2 acquisition. Overall, it can be argued that the Full Access debates imply that interlanguage grammars and native grammars will converge, which means that the target grammar can be fully acquired. However, as for the other claims, in which access to UG is fully or partially constrained, L2 grammar and native grammar will diverge. In other words, full attainment to native-like grammar can never be achieved.

Considering the previously held accounts, all the theoretical positions have still proponents today and these models thrive in predicting different aspects of L2 acquisition. However, as for the access to UG debates, the experimental studies on L2 acquisition frequently hold the view that UG is directly accessed for L2 learners to switch to the parameters of L2. Concerning this, White (2003) claims that for the Full Access models, Partial Transfer and No Transfer models have some deficiencies in accurately predicting possible L1 transfer. Therefore, one cannot deny the existence of L1 transfer, but the view whether L1 transfer is partial or not depends on what kind of features and values one is dealing with. On the contrary, the FTFA has been supported by various L2 researchers such as Gürel (2006), Montrul and Louro (2006), and Rothman (2009). It predicts that the interlanguage grammar will converge with the native grammar at the advanced proficiency level.

2.3.2. Acquisition of Functional Categories and Features

Following the studies conducted on access to UG and transfer issues, some researchers have become interested in representing the initial state of L2 learners and studied the acquisition of functional categories and features. The reason for this focus coincides with the introduction of minimalism (Chomsky, 1993), in which the P&P approach was partly discarded. Rather, parameter differences between languages were considered to be found in the lexicon and such topics as ‘absence or presence of features, strong and weak features, and feature checking’ gained importance. (White, 2018, p. 57). In other words, it was claimed that differences between languages resulted from differences in functional categories and features (such as subject, case, and, movement of verb). Therefore, the direct consequence of this approach to L2 acquisition has

been a shift from parameter resetting to 'L2 acquisition of functional categories and features', which constitute UG.

Bearing this in mind, a number of studies have been conducted on L2 acquisition within the perspective of the Interpretability Hypothesis (Hawkins & Hattori, 2006; Hawkins & Casillas, 2008). It states that interpretable features are accessible to adults in L2 acquisition unlike uninterpretable features which cannot be fully acquired. In this respect, it favors the 'Partial Access to UG' approaches in L2 acquisition. In minimalist accounts, interpretable features are related to semantic content such as singular vs. plural and animate vs. inanimate. On the other hand, uninterpretable features require formal operations, which have to be checked. An uninterpretable feature has to be matched with its interpretable part and any remaining uninterpretable feature must then be deleted. To illustrate, in English, complementizer is an uninterpretable wh-feature in wh-questions and has to be checked against an interpretable feature such as *what.*

In a representative study, Hawkins and Hattori (2006) conducted a study on L2 English speakers of Japanese to test the Interpretability Hypothesis in wh-questions. In forming wh-questions in English, complementizer is an uninterpretable feature. On the other hand, there is no overt complementizer in Japanese. In an experimental task, they formed 14 contextualized questions including wh-questions and asked the participants to choose the answer that best matches with the question. They found that even the advanced L2 English speakers of Japanese found it difficult to accept answers to wh-questions, ending up impermissible wh-structures in English. This finding favors the position in which uninterpretable features present permanent difficulties in L2 acquisition.

In another study, Tsimpli and Dimitrakopoulo (2007) claimed that only interpretable features are accessible in L2 acquisition unlike the uninterpretable ones, which are not accessible to adults for L1 transfer. They studied the resumptive pronouns found in wh-questions by the intermediate and advanced Greek L2 learners of English. Resumptive pronouns in Greek constitute an uninterpretable feature relating to subject and object agreement while in English there is no obligatory resumptive pronoun in forming wh-questions. Regarding this, the findings of their study indicated that Greek learners found it difficult to form wh-questions in English.

2.3.3. The Interface Hypothesis

The approach to generative grammar consists of different modules which are linked together. This combination of different linguistic modules is known as interface processes (Slabakova, 2013). Montrul (2011, p. 592) defines interface as consisting of 'a series of discrete modules each with their own structural and hierarchical organization as well as connections'. Bearing this in mind, studying the interfaces has become another focus of interest. Researchers have become interested in how L2 learners acquire the linguistic principles which involve combination of different structures from syntax, semantics, phonology, morphology, and discourse.

The relation between linguistic systems and non-linguistic systems was first highlighted by Jackendoff (2002), who thought that grammar consists of phonological, syntactic, and conceptual structures which are mapped onto one another. Accordingly, an interface can be between linguistic modules or between a linguistic module and a conceptual module (e.g. syntax-discourse interface is considered as part of the conceptual-syntactic module). White (2009) depicts how contextual information interfaces with linguistic models as follows:

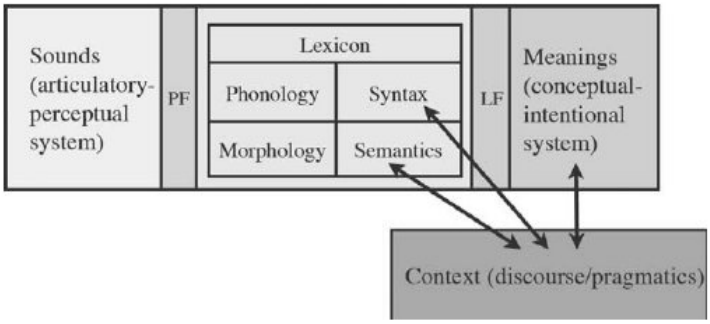


Figure 2: Interface model (White, 2009)

In this regard, there are two types of interfaces which have different outcomes on L2 acquisition. Internal interfaces combine the micro aspects of language with each other as in the case of syntax-semantics (e.g. word-order changes in syntax with differences in meaning) or syntax-morphology interface (e.g. use of inflectional morphology and functions words). On the other hand external interfaces link pure linguistic modules with conceptual knowledge (Tsimpli & Sorace, 2006; White, 2009) such as syntax-discourse (e.g. discursive constraints on word order).

In this respect, with the influential works by Sorace (2000), Sorace and Filiaci (2006) and Sorace (2011) Interface Hypothesis (IH) has been put forward to account for how L2 acquisition is realized in the light of interfaces. Accordingly, it has been claimed that grammatical properties that interface within linguistic modules are not likely to be problematic to acquire. For example, it has been claimed that the syntax-semantics interface appears not to be problematic to acquire (Dekyspotter & Sprouse 1997, Dekydspotter et al., 2001; cited in Slabakova, 2008). On the other hand, external linguistic properties that interface with discursive or pragmatic properties seem quite problematic for L2 learners to acquire (e.g. Tsimpli & Sorace, 2006).

For example, Valenzuela (2006) investigated the clitic left dislocation across the L2 Spanish learners of L1 English speakers. The experimental tasks used in the study were oral grammaticality judgement task, oral sentence selection task, and written sentence completion task. In tasks which assess the pure syntactic constraints of clitic left dislocation, the participants successfully arrived at the target grammar. However, in Spanish, object pronouns which function as clitics can be placed in pre-verbal position to signal topicality, hence a locus of syntax-discourse interface. As predicted by the IH, the findings of the tasks assessing the given interface suggested that even at the advanced level of proficiency, the performances of L2 Spanish learners diverged from the target grammar.

Bearing this in mind, the reason why this interface is more problematic to acquire has to be brought into question. Regarding this, researches displayed that there is an inherent difference between internal and external interfaces. For instance, Rothman and Slabakova (2018) claimed that interfaces between linguistic modules are less limited compared to non-linguistic domains. To illustrate, the syntax-semantics interface is only governed by linguistic principles whereas the syntax-discourse interface is additionally conditioned by the nature of context. Therefore, processing information in this interface becomes more complex as framed by Sorace & Serratrice (2009, p. 595) who argued that the interface between external and internal domains requires more 'processing cost' compared to the interfaces consisting of only internal domains. Therefore, the syntax-discourse interface becomes inherently more complex for L2 learners than the interfaces with internal domains such as syntax-semantics or syntax-morphology.

As stated above, according to the IH, the syntax-discourse interface presents long-termed difficulties for L2 acquisition even for bilingual speakers. This vulnerability in L2 grammar is also known as the Interface Vulnerability Hypothesis (Sorace & Filiaci, 2006; Sorace &

Serratrice, 2009). According to it, if 'divergence' occurs in L2 grammar, it is more likely to result from the 'syntax-discourse interface than at other interfaces'. (Sorace & Filiaci, 2006, p. 500). This predicts that components in the syntax-discourse interface cannot be fully acquired.

Considering this, it can be claimed that the syntax-discourse interface has mostly been represented with studies on discursive constraints on the use of null and overt subject distribution since in null subject languages the choice to use either null and overt subject calls for the mapping of syntactical information on the discursive knowledge. However, as stated before, a group of researchers who studied null and overt subjects at the very same interface claim that the ultimate attainment of discursive constraints is possible (e.g. Gürel, 2006; Montrul & Louro, 2006; Rothman; 2009), which supports the FTFA.

2.4. ON THE NULL-SUBJECT PARAMETER

In this section, more details and theoretical debates relating to the NSP are given to better understand the relevant concepts and theoretical tools employed throughout the study. Therefore, this chapter specifically focuses on the syntax of subjects and discursive constraints on the syntax-discourse interface. Since the theoretical tools of the study are based on the Overt Pronoun Constraint (OPC, Montalbetti, 1984), which constraints the syntax of null and overt subjects and Information Structure (IS, Vallduvi, 1992), which governs the distribution of subjects at the syntax-discourse interface, these notions are further elaborated in each part respectively.

2.4.1. The Syntax of Null and Overt Subjects

With the introduction of the P&P framework (Chomsky, 1981), the NSP has become one of the most widely studied topics in generative grammar. Studies have been carried out to understand how null subject languages omit subjects freely while how non-null subject languages are not allowed to employ null subjects. At this point, the very first syntactic accounts on the realization of the NSP are given with the influential studies below.

2.4.1.1. Early Studies on the Syntax of the NSP

The first generative work on the NSP can be traced back to studies of Perlmutter (1971). He observed some commonalities between a language allowing null subjects and the possibility of moving the embedded subjects headed by *that* complementizer. The same generalization cannot be obtained in languages not allowing null subjects, rendering the sentence ungrammatical. This has come to be known in generative grammar as *that-trace* effect. Accordingly, in null subject languages the embedded subject can be extracted to the subject position in matrix clauses, leaving *that* behind overtly. However, *that* must be omitted in non-null subject languages so that the sentence becomes grammatical. This can be displayed in Spanish, a null subject language:

(5) Quien*i* dijiste que e*i* salió temprano
who say-PAST-2SG THAT leave-PAST-3SG early
'*Who did you say that left early?'

(6) Las cosas*i* que dijiste que e*i* pasaron
the things that say-PAST-2SG THAT happen-PAST-3PL
'*The things that you said that happened'

(Perlmutter, 1971, p.103)

When the Spanish and English counterparts of the examples (5) and (6) are taken into consideration, the empty category in Spanish is moved to matrix position but in English, the same movement is not allowed unless *that* is omitted. Therefore, the above sentences including *that* is ungrammatical in English unlike Spanish.

Perlmutter's this proposal concerning non-null subject languages became known as the Perlmutter's Generalization. It states:

> Any sentence other than an Imperative in which there is an S[5] that does not contain a subject in surface structure is ungrammatical.
>
> (Perlmutter, 1971, p. 100)

[5] Here, the S corresponds to the term sentence.

He stated that overt subjects are required in surface structure in such languages as English and French.

From another perspective, Chomsky (1981) introduced a universal principle regarding the presence of subjects in all languages. The principle specifies that all finite clauses must have subjects, known as the Extended Projection Principle (EPP). The EPP means that having subjects in tensed clauses is a universal principle, which all languages hold, but the choice to employ subjects in surface structure is a parameter, as first formulated by Perlmutter (1971). Considering this, starting from Chomsky (1981), researchers have tried to come up with a justification of licensing the empty category, *pro*, which substitute the null subject of the clause. This means that if the subject is not overtly realized, the position of the subject fulfilled by *pro* has to be justified, that is to say, licensed. Therefore, one can claim that the question of how *pro* is licensed has been one of the most studied components of the NSP.

The idea that the subject position might be left empty but the referent of the subject can be inferred from the verbal inflectional affixes on the verb suggests that *pro* is licensed in this way. Thus, following Chomsky (1981), Rizzi (1982) proposed a model in which the agreement features of the inflected verb, namely, AGR licenses *pro*. In other words, *pro* can be recovered from the agreement features on the verb. Accordingly, the empty category *pro* has the features [+pronominal, -anaphor], which means that it has the features of a pronoun, hence the parameter is so-called pro-drop. Rizzi (1982) claimed that pro-drop (null subject) languages are characterized by the following features as summarized by Wakabayashi (2002, pp. 30-31):

1. pro-drop languages allow null subjects but non-pro-drop languages do not

It states that null subjects are allowed because of the overt agreement markers on the verb while non-pro-drop languages do not allow null subjects since the subject agreement is generally missing:

(7) Yürüdüm
walk-PAST-1SG
'I walked'

(8) *Walked

In example (7) the first singular person agreement marker on the verb allows the subject to be realized covert in Turkish whereas example (8) from English is ungrammatical in which subject has to be overtly marked due to poor inflectional agreement system on the verb.

2. pro-drop languages allow subject-verb inversion in declaratives but non-pro-drop languages do not

This feature means that in simple declarative clauses, subject and verb might be inverted in pro-drop languages as displayed in Spanish:

(9) Salió María
leave-PAST-3SG Mary
'*Left Marry'

(10) *Came she

(Gilligan, 1987, cited in Croft, 2003, p. 81)

The above examples display that the given subject-verb inversion in Spanish is grammatical but the example from English is ungrammatical. Note that inversion can be employed in English to encode discursive function as noted by Birner (1996) but this function is only limited to certain constructions, requiring particular type of verbs or preposition-fronting. However, in pro-drop languages, a sentence containing only subject and verb can be inverted but the same does not apply to non-pro-drop languages.

3. pro-drop languages allow *that-trace* sequences but non-pro-drop languages do not

As discussed by Perlmutter (1971) in examples (5) and (6), *that* can be left overt when the embedded subject is moved to matrix subject position in pro-drop languages, yet in non-pro-drop languages, the sentence becomes ungrammatical unless *that* is omitted.

Overall, it can be argued that in null subject languages if the functional category inflection (INFL) has strong feature, the null subject can be licensed by the inflectional agreement markers on the verb as in the case of Spanish, and Italian. However, if the INFL does not have strong feature as in the case of English, German and French, the null subject cannot be licensed (Liceras & Diaz, 1999), which means that these languages do not allow null subjects thereby.

These three features which characterize null subject languages are separate values of the NSP. However, it is not always the case that the features characterizing the NSP are acquired at the same time. To give an example, Rothman (2007) argued that the use of null subjects is acquired earlier than other features such as subject-verb inversion and *that-trace* effect.

Taking the above justifications into account, the very first objection to how null subjects are licensed came from Huang (1984) who refuted the claims of Rizzi (1982) and proposed that in some null subject languages, *pro* is not licensed by the agreement features on the verb. He referred to these type of null subject languages as 'discourse pro-drop' languages. The main motivation behind this is that many East-Asian languages do not mark agreement inflections on the verb; nevertheless, they allow null subjects. As discussed by Öztürk (2005), Huang (1984) argued the possibility that there should be two further parameters (or values) for null subject languages. The first one is null topic languages, named as discourse pro-drop, where the empty category *pro* is licensed by the 'operator variable chain', a syntactic mechanism employed to license *pro*, in such languages as Japanese, Korean, and Chinese. The second one is agreement-based null subject languages such as Italian and Spanish, where *pro* is licensed by the agreement features on the verb as discussed before.

In discourse pro-drop languages, null subjects are bound by null topics, which means that the interpretation of null subjects depends on discourse of the utterance and the inflected verb does not carry pronominal agreement markers. Consider the examples below:

(11) Ø sikenni otita (Japanese)
pro exam-DAT fail-PAST
'*pro* failed the exam'

(12) Ø kanjian ta le (Chinese)
pro see he LE
'*pro* saw him'

(Huang, 1984, p. 533; cited in Öztürk, 2005, p. 211)

The above examples reveal that null subjects are possible in Japanese and Chinese since the referents of *pro* can be inferred from the immediate context. The only difference from the agreement null subject languages resides in how null subject is licensed. Concerning the use of

overt subjects, as Sorace (2000) claimed, in both types of null subject languages overt subjects have the [+ topic shift] feature as regulated by discourse-pragmatic features. That is to say, the use of overt subjects convey certain pragmatic information. However, as for the non-null subject languages such as English, German, and French, such discursive constraints as topic continuity and topic shift do not interact with the sentence structure, making the use of overt subjects obligatory in any case.

Following the accounts developed by Huang (1984) and partly for reasons to incorporate discourse pro-drop languages into his previously developed model, Rizzi (1986) proposed another dimension to his theory of the NSP. He argued that empty category *pro* has to be identified besides licensing. Accordingly, the tool to identify *pro* might differ across languages. Therefore, the lexical content of the *pro* is identified by the rich verbal agreement markers in null subject languages, but as for the discourse pro-drop languages previous topic or pragmatic information identifies the content of *pro*.

Another theory of *pro* which was proposed to find out the reason why languages differ in the way they treat their subjects originated in the work of Jaeggli and Safir (1989). They claimed that if the verbal agreement markers on the verb are uniformly different or uniformly not available for each person on the verb, only then null subjects are allowed. This has become known as the Morphological Uniformity Principle. If the inflectional markings on the verb is not uniform, or say, not equally complex, subjects cannot be omitted. For example, in English only the third person singular suffix is marked on the verb, yet no overt agreement affix is attached for the remaining person category. Likewise, in French the first and third person are not marked overtly, but the verb takes agreement markers for the other person suffixes (Ayoun, 2003, p. 82). This means that for English and French, verbs do not uniformly take agreement markers; hence, they are non-null subject languages. On the other hand, Spanish and Japanese conform to this principle:

(13)

	comer (eat-PRES)	(Spanish)
1SG	como	
2SG	comes	
3SG	come	
1PL	comemos	
2PL	comeis	
3PL	comen	

(Ayoun, 2003, p. 82)

(14) Tabe-ru (Japanese)
eat-PRES
'I / he / she / we / they will eat / eat'
Tabe-na-i
eat-NEG-PRES
'I / he / she / we / they will eat / not eat / do not eat'
Tabe-ta
eat-PAST
'I / he / she / we / they ate / have eaten'
Tabe-na-katta
eat-NEG-PAST
'I / he / she / we / they did not eat'

(Ayoun, 2003, p. 82)

As for the examples (13) and (14) above, Spanish marks uniformly different person agreement markers on the verb, meaning that all verbs are marked uniformly with different agreement affixes. Japanese, on the other hand, marks no agreement feature on the verb, yet allows the use of null subjects. This again conforms to the Morphological Uniformity Principle on the grounds that agreement marker is uniformly absent in the verbal morphological paradigm of Japanese.

This principle seems to account for the differences between null subject and non-null subject languages. But it does not hold in some languages. Although German is an agreement-rich language; that is, the affixes on the verbal paradigm are uniformly complex, it does not allow referential null subjects:

(15) hören (hear-PRES) (German)
1SG ich höre
2SG du hörst
3SG er hört
1PL wir hören
2PL ihr hört
3PL sie hören

(Ayoun, 2003, p. 83)

The studies which are discussed above followed the Chomsky's tradition of EPP by arguing that the empty position must be filled by *pro*. However, starting with Borer (1984), some studies proposed that there is no need to satisfy the EPP with *pro* due to the fact that verbal agreement markers function like subject (e.g. Alexiadou & Anagnostospoulo, 1998; Öztürk, 2001; Platzack, 2004). This approach to null subjects is known as I-subject approach (Roberts & Holmberg, 2010). In this respect, I corresponds to functional category Inflection. The idea is that inflectional head having agreement markers can help to resolve the subject.

Nevertheless, the syntactic approaches to the NSP depicted above have tried to explain the formal mechanisms to account for how null subject languages freely permit null subjects. Overall, both types of approaches given above conform to the formal principles of the NSP and the difference resides in how they account for the empty subject category. At this point, another formal constraint which has been supported with empirical studies concerning null subject languages is mentioned below.

2.4.1.2. The Overt Pronoun Constraint (OPC)

The Overt Pronoun Constraint (OPC; Montalbetti, 1984) is a universal constraint which applies to null subject languages. This constraint states that overt subject in the embedded clause cannot be co-referential with a quantified/wh antecedent in the matrix clause. In other words, it cannot refer to the same person. Here is an example from Spanish, a null subject language:

(16) Muchos estudiantes*i* creen que ellos**i/j* son intelligentes
Many-PL student-PL think-3PL that they be-3PL intelligent-PL
'Many students*i* believe that they**i/j* are intelligent'

(Montalbetti, 1984, p. 82)

Here, the embedded subject *ellos (they)* cannot refer to the quantified expression *muchos estudiantes (many students).*

However, if the overt embedded pronoun, *ellos (they)* is not present in the clause, the null subject might be bound to the matrix subject. Consider this:

(17) Muchos estudiantes*i* creen que *proi/j* son intelligentes
Many-PL students-PL think that *pro* be-3PL intelligent-PL
'Many students*i* think *proi/j* are intelligent'

(Montalbetti, 1984, p. 82)

There are two interpretations of the null embedded pronoun here. The interpretation tends to be inferred from the immediate context. For the bound reading, which means that the null embedded subject refers to the same person in the matrix clause, the students think themselves as intelligent. For the disjoint reading, in which the embedded subject refers to a third party in the discourse (another person which is not present in the sentence), the students think some other people as intelligent (not themselves).

As put forward by Montalbetti (1984, p. 107) if we think the quantified matrix subject as variable X, which is a person, the ambiguity can be interpreted as in the following:

Bound Reading: X thinks X to be intelligent.

Disjoint Reading: X thinks Y to be intelligent.

In another case, when the matrix subject is a referential DP, the overt pronoun in the embedded CP can be co-referential with it as well or it might refer to another person in the discourse:

(18) Juan*i* cree que él*i/j* es intelligente
Juan think-3SG-PRES that he be-3SG-PRES intelligent
'Juan*i* thinks that he*i/j* is intelligent'

(Montalbetti, 1984, p. 85)

However, in non-null subject languages, when the matrix subject is a quantified/wh-word expression, there is no such restriction:

(19) Many students*i* believe that they*i/j* are intelligent

(Montalbetti, 1984, p. 95)

The above sentence in English is ambiguous. The overt subject of the embedded clause, *they*, can either be a free pronoun, which does not have an antecedent or it might be bound by the quantified

expression, *many students*. The pragmatic context determines the interpretation of the overt pronoun in that case. That is, non-null subject languages allow the overt embedded subject to have a quantified antecedent in their matrix clause unlike null subject languages.

2.4.1.3. The OPC in Second Language Acquisition

So far, it has been argued that in null subject languages, overt pronouns cannot be linked to a formal variable whereas no such restriction exists in non-null subject languages. In the light of the observations from null subject and non-null subject languages, the claim that the OPC is part of the UG has been raised (Montalbetti, 1984). Accordingly, the OPC has become a methodological tool to assess the syntactic knowledge in L2 acquisition. A considerable number of studies have been carried out to understand whether L2 learners from different proficiency levels display sensitivity to the syntactic constraints of the L2 grammar where the OPC works (Kanno, 1997, 1998; Perez-Leroux & Glass, 1999; Gürel, 2006; Rothman & Iverson, 2007; Rothman 2007, 2009).

Among others, Kanno (1997) tested native English speakers acquiring Japanese as a second language in order to assess the UG effects in early acquisition. She designed a written questionnaire consisting of four sets of complex sentences. The first two sets employed null / overt subject distinction in a quantified antecedent context and the second two sets employed null / overt subject distinction regarding the referential antecedent context. Then, subjects were asked to select the interpretation of the embedded subject, either the same person as in the matrix subject or another person. For example:

Dare ga [kare ga kurumao katta to] itta no?
Who-NOM he-NOM car-ACC bought that said-Q
Who said [that he bought a car]?

Subjects were asked to indicate to whom the embedded subject, *kare (he),* refers. In this sentence, subjects were expected to indicate another person as the answer since the embedded subject, *kare (he)*, must refer to a third party regarding the OPC. The test items of the questionnaire were context-free, which means that the remaining three sentence types are ambiguous except for the one exemplified above. The results indicated that the L2 Japanese learners had the knowledge of OPC in the intermediate level, yet there were performance differences among the participants.

In another study, Perez-Leroux and Glass (1999) employed the OPC task to their participants to understand whether they reset the NSP or not. The participants were elementary, intermediate and advanced L2 Spanish speakers of North American English. The researchers hypothesized that if the participants were successful in the OPC task, this would reinforce the generative approach to L2 acquisition, which simply predicts that L2 acquisition is similar to L1 in which L2 learners have access to UG and the structural properties of null and overt subject distinction can be fully acquired. That is to say, if the OPC is universal, the interpretive constraints should be available to L2 participants as well. They used 8 contexts which they called stories and following each context, an English sentence in which the OPC does not work was given to be translated into Spanish. The aim of the story is to control the possible two interpretations of pronouns in the embedded clause both in referential and quantified antecedent contexts. Further they noted that, no matter what the context is, overt embedded pronoun cannot be bound to a quantified antecedent. A sample story is shown below:

> *Story:* In the O.J. Simpson trial, it is clear that the press has a negative bias against the defendant in their reporting. Some journalist said that he was a wife-beater.
>
> *Sentence to be translated:* But no journalist said that he is guilty.
>
> *Target translation:* Ningun periodista dijo que el era culpable.
> No journalist said that HE was guilty.

In this context, subjects were expected to use an overt embedded subject. The results of the study suggested that the OPC knowledge is present from the early stages of the L2 learning process, which reinforced the generative model of L2 acquisition.

In another study, Gürel (2006) studied the arguments that overt pronouns cannot be bound to quantified or variable expressions and particularly focused on the binding principles of *o(he)* in Turkish across the advanced English L2 Turkish speakers. As it can be predicted by the Binding Theory (Chomsky, 1981), null pronouns can be bound by the antecedent quantifier or they might refer to another referent in the discourse. However, she claimed that the OPC does not hold in Turkish (for the discussion of the OPC in Turkish see section 2.5.1.4.).

Rothman and Iverson (2007) discussed the effects of the input type (the setting where the L2 acquirers are exposed to the target grammar) on the syntactic distribution of subject pronouns.

They studied with two groups, the first group had been living in the speech community where the language was spoken and the other group was learning the language in a classroom environment in a foreign context. The results of the OPC task, which assess the syntactic knowledge of the participants, suggested that the naturalistic input did not provide more positive effects than the classroom input. Therefore they concluded that the OPC should be a universal constraint, proving that UG is fully accessed.

In another study, Rothman (2007) investigated the syntax-discourse interface as to the distribution of null and overt subject pronouns in English-speaking L2 Spanish learners at the intermediate level in order to figure out whether this interface is problematic to acquire as predicted by Sorace (2006) or not. In order to test the syntactic knowledge of the participants, he employed a 'co-reference interpretation task' to judge the OPC knowledge of English speakers. In his task, he employed four different types of contextualized sentences which target the interpretation of embedded subjects (either null and overt) *in contra* quantified or referential antecedent subject contexts. As for the result, 20 out of 30 L2 learners were identified to be able to reset the NSP, meaning that the ability to use null subjects in L2 Spanish can be acquired.

Overall, the OPC is an 'interpretive restriction' held in null subject languages (White, 2003). Considering the fact that the OPC is a linguistic universal, it is beyond any doubt that L2 learners can access to UG to reset the NSP. As it is clearly displayed, the tasks carried on to evaluate the OPC knowledge are particularly promising for the SLA studies. As a formal restriction, the OPC also provides the best evidence to 'the logical problem of L2 acquisition' in SLA (Rothman, 2007, p. 313) since these constraints are never formally taught to learners and even there is no distinction made between overt and null subjects at the classroom environments.

2.4.2. The Discourse of Null and Overt Subjects

As discussed before, the choice to use null or overt subject in null subject languages is not selectively distributed; rather, it depends on certain discursive constraints. Therefore, this constraint only applies to null subject languages. Concerning this, the content of this section relates to null subject languages and it can be argued that the pragmatic nature of null and overt subjects can be explicated by employing the main tenets of information structure (IS). From this point on, IS, as a methodological tool, and its applications to null and overt subjects are explained and discussed.

2.4.2.1. Information Structure

Since Plato's onoma and rhema distinction, a sentence or an utterance has been considered as composed of at least two parts. From that time on, though not exclusively, this distinction has been mostly maintained by various notions such as theme-rheme, topic-comment, ground-focus, as basic notions of IS. Following Chafe (1976), Vallduvi (1992) defined IS as 'a small set of instructions with which the hearer is instructed by the speaker to retrieve information carried by the sentence and enter it into his/her knowledge store'. In this regard, IS can be considered as an approach which includes a number of different orientations and theories (Krifka, 2008). This approach tries to figure out how information is packaged or served to listeners for a successful communication to take place. Accordingly, information packaging is structured in the sentences by any syntactic, morphological or phonological means to establish communication in different languages. In other words, the essential point is that the information that enables speakers to understand each other is realized by certain means represented in the syntactic, morphological, or phonological structure of the sentences.

As stated above, the studies on IS has traditionally been carried out over binary distinctions such as theme-rheme, topic-comment, ground-focus, and topic-focus, all of which provide information about how the sentence is structured. These terms can be used interchangeably by different researchers, which was first characterized by the Prague School as theme vs. rheme (e.g. Mathesius, 1939). Roughly speaking, theme is considered as what is shared, presupposed, and old whereas rheme is considered as the new information and what is unknown by the speakers. This distinction between theme and rheme is now more likely to be labelled as topic and focus respectively.

Among others, Gundel (1988) stated that languages encode topic-comment realization by employing such structural properties as morphology, syntax and phonology. In other words, languages differ in the way they realize such articulations. Accordingly, topic tends to be interpreted as what the sentence is about and comment is the main predication about the topic. Topics must be definite, indicating shared familiarity. In other words, topic is what the speaker and hearer already knows. However, comment indicates newness. Moreover, she also argued that all topics might be realized as an empty category in the sentence whereas comment has to be overt since it introduces new information which is not shared by the participants.

In a similar vein, Vallduvi and Engdahl (1996) argued that each of the distinctions as focus-ground, comment-topic, rheme-theme and new-given are informational articulations. For the focus-ground distinction focus is the informative part of the sentence which marks new information while ground[6] is the non-informative part, which is already known and expected. However, the general tendency is that ground is the subject of the sentence and the focus is the part that carries the most important information in the sentence. Accordingly, a sentence is composed of focus and ground in which focus is the 'update potential' or the 'propositional content' of the sentence (Vallduvi, 2003). Since all sentences carry information, they need to have focus and for that reason they need to be expressed overtly in the sentence. Ground is the already assumed information part of the sentence. It is the non-informative part of the sentence which structures the access of information into hearer's mental world.

Considering Turkish, Turkish IS is characterized by both intonation and syntax (Vallduvi & Engdahl, 1996; İşsever, 2002). Depending on the information update and context, an unmarked sentence in Turkish, which is SOV, might have different realizations to realize different functions. İşsever (2002) stated that the unmarked topic position for Turkish is the subject position and Erguvanlı-Taylan (1984) stated that the focus position for Turkish is pre-verbal position and the items following the verb is backgrounded. However, there are other accounts which argued that IS of Turkish is prosodic (Özge & Bozşahin, 2010).

2.4.2.2. Information Structure Effects on Null and Overt Subjects

This part discloses how the basic notions of IS has an influence on null and overt subject realization in null subject languages.

Vallduvi (1992) stated that the use of pronouns in languages, where the use of pronouns is obligatory, are due to syntactic motivations, namely, the EPP. Therefore the grammatical encoding of obligatory use of subject in non-null subjects cannot be explained by IS. However, in null subject languages, the choice to use subjects closely pertains to the information packaging of the sentence. With respect to this, The Avoid Pronoun Principle, proposed by Chomsky (1981), states that pronouns are not to be used in null subject languages unless it is required to employ them. It means that when subjects are to be used overtly, they carry certain informational value. This position has also been supported by many other researchers. For example, as stated above,

[6] It corresponds to the notion Topic in the current study.

Gundel (1988) and Vallduvi (2002) suggested that the topic of the sentence might be realized as empty, requiring the use of null subject. Considering this point, it can be argued that IS determines when to use null and overt subject in the sentence (Genevska-Hanke, 2019). Taking this point into consideration, if the topic (corresponding to subject of the sentence) has already been introduced into the discourse, subject tends to be realized as null. However, when new information is introduced or a referent is contrasted with another referent in the discourse, the use of overt subject becomes obligatory on the grounds that the new referent carries the informational part of the sentence. As discussed before, Belletti et al. (2007) also pointed out that null subjects are employed in topic continuity contexts. On the other hand, the use of overt subjects can be found in topic shift contexts. Therefore, in the light of these accounts, it can be argued that a close relationship can be established between IS and the discursive constraints on the use of null and overt subjects.

2.4.2.3. Information Structure and the Cognitive Status of Null and Overt Subjects

The selectional distribution of discourse-based null and overt subject use as determined by IS can also be linked to cognitive or mental processes such as information retrieval (e.g. Brocher & von Heusinger, 2018), identifiability (e.g. Givon, 1984; Gundel et al., 1993, cited in Epstein, 2002, p. 334), and familiarity (e.g. Christophersen, 1939; Heim, 1982, cited in Epstein, 2002, p. 334) etc. Accordingly, these cognitive processes determine how the basic units of IS are realized, which in turn determine the grammatical encoding of null and overt subject distribution (e.g. Gundel et al., 1993). These studies focus on how mental processes influence the way linguistic units in the sentence are structured.

In terms of information retrieval, some studies place the topicality into a unit in a sentence where the communicative dynamism is lower when compared to other units in the sentence (e.g. Givon, 1983). Such studies focus on the relation between the structural realizations of the NPs and their cognitive accounts. Regarding this, Givon (1983) employed 'topicality hierarchy' to account for the structure of various languages. In this model, he basically stated that referent of null categories can be easily retrieved by the hearers since it signals topicality whereas it is difficult to retrieve a lexical NP (overt subject) as it is the new information.

Considering the above points, it can be argued that there is a close relationship between the cognitive status of null and overt subjects and the topic continuity-topic shift articulation (for further discussion see Aksan, 2002). When considered from the discursive constraints on the use

of null and overt subjects, null subjects are used to indicate topic continuity, which occupies the top position on the Givon's 'topicality hierarchy'. Speakers assume that hearers have already activated the information state and they encode this with a null subject. However, overt subjects occupy the lower position in the hierarchy in which the speakers need to express it with an overt phonological unit due to topic shift as it is unknown to the hearer.

From this perspective, in the present study it is assumed that the pragmatic factors regulate the use of null and overt subjects in null subject languages; namely the topic continuity-topic shift articulation. In other words, discourse-based selection of null or overt subject use is to be accounted over the topic continuity and topic shift distinction. Therefore, it can be claimed that subjects need to be phonologically null if they are found in topic continuity contexts. On the other hand, subjects need to be overtly marked if a new referent is introduced into discourse in topic shift contexts. It is further assumed that the topic continuity-topic shift articulation is closely pertinent to the 'topicality hierarchy' of Givon (1983). That is, the activated, already known, and shared NPs are marked by null subject and the unknown, not activated NPs are realized by overt subject. These considerations are summarized below in Table 1:

Table 1

The interaction of topic continuity-topic shift articulation and the cognitive status of null and overt subjects

	Subjects	
Information Structure	Topic continuity	Topic shift
Cognitive Status	Familiar / activated	Unfamiliar / Not activated
Lexical Realization	Null	Overt

2.5. NULL AND OVERT SUBJECTS IN TURKISH

In the light of the present study, this part particularly focuses on the studies of null and overt subjects in Turkish. The first section is devoted to the syntactic accounts of subjects in Turkish. Following this section, considering the information state of the sentence, discourse-pragmatic constraints on the realization of null vs. overt subject distribution are explained in Turkish with the relevant studies in the field. As they relate to the subject distribution in the present study, the final section of this part deals with quantifiers/wh-phrases and wh-questions in Turkish respectively.

2.5.1. The Syntax of Null and Overt Subjects in Turkish

2.5.1.1. Pronoun and Agreement System of Turkish Pronominal and Lexical Subjects

Overt subjects are grammatically encoded in Turkish with a pronoun or a lexical NP. The pronoun system of Turkish is displayed below:

(20) Ben *(I)* Biz *(We)*

Sen *(You-SING)* Siz *(You-PL)*

O *(He/She/It)* Onlar *(They)*

As stated before, the subject position in matrix and embedded clause can be left empty in Turkish. Therefore, the referent of subject can be understood from the morphological agreement suffixes on the verb. In other words, null subjects both in matrix and embedded clauses are recovered by the verbal agreement endings, two of which can be summarized in the table below (Good & Yu, 2005, p. 316):

Table 2

Turkish pronominal agreement markers

	k-paradigm		**z-paradigm**	
	SINGULAR	PLURAL	SINGULAR	PLURAL
1st	-m	-k	-(y)Im	-(y)Iz
2nd	-n	-nIz	-sIn	-sInIz
3rd	-Ø	-Ø	-Ø	-Ø

The reason for these morphological agreement markers to be labelled in different paradigms is that they are added to different types of bases. Good and Yu (2005) pointed out that *k-paradigm* (named after the 1st person plural marker in this paradigm) can only be applied to past tense and conditional suffixes as can be exemplified in the following:

(21)			
	1SG	dön-dü-**m**	dön-se-**m**
	2SG	dön-dü-**n**	dön-se-**n**
	3SG	dön-dü-**Ø**	dön-se-**Ø**
	1PL	dön-dü-**k**	dön-se-**k**
	2PL	dön-dü-**nüz**	dön-se-**niz**
	3PL	dön-dü-**Ø**	dön-se-**Ø**
		turn-PAST-PSN	turn-COND-PSN

(Good & Yu, 2005, p. 316)

As for the *z-paradigm* (named after the 1st person plural marker in this paradigm), the given suffixes can apply to all other verbal bases other than the ones used for the *k-paradigm*:

(22)			
	1SG	gid-iyor-**um**	'I am going'
	2SG	gid-iyor-**sun**	'You are going'
	3SG	gid-iyor-**Ø**	'S/he is going'
	1PL	gid-iyor-**uz**	'We are going'
	2PL	gid-iyor-**sunuz**	'You are going'
	3PL	gid-iyor-**Ø**	'They are going'

The other two agreement paradigms include imperative and optative (subjunctive) mood (see Lewis, 1967 for the full morphological endings for these paradigms).[7] When sentences are constructed in these moods, different agreement markers are used compared with the ones present in the *k-paradigm* and *z-paradigm* respectively.

As can be seen from the given examples, the referent of subject can be retrieved from the morphological agreement suffixes when null subject is employed. Note that, Turkish does not have 3rd person singular and plural agreement marker both in the *k-paradigm* and *z-paradigm*.

The only exception to agreement-based accounts of licensing and identification of subjects seems to be tenseless adjunct clauses (Özsoy, 2001; Kornfilt, 2003). Consider the example below:

[7] Good and Yu (2005) stated that these paradigms do not frequently occur compared to the other two paradigms. As the tasks in the study do not involve them, they are not discussed here.

(23) [Sen konsere gid***ince***] ben eve döndüm
You-SG concert-DAT go-when I home-DAT return-PAST-lSG
'When you went to the concert, I returned home'

(Kornfilt, 2003, p. 157)

Here, overt subject in the adjunct clause *sen (you)* does not agree with the verb. Alternatively, the same subject position can be filled by other subjects as well. However, it should also be noted that tensed adjunct clauses do not lack agreement.

Overall, in the light of these discussions raised above, considering the typology offered by Tomioka (2003, see Figure 1), Turkish can be argued to be an agreement null subject language regarding the use of subjects since the referent of null subjects are understood from the agreement markers on the verb[8].

2.5.1.2. Subject Case in Turkish

Subjects in Turkish can be inflected for case. Kornfilt (2003) argued that there are at least two types of overt subjects which are licensed differently depending on how subject case is licensed. First, the overt functional category AGR on the verb can license subject. When AGR is present on the verb, the case of overt subject will be either in the nominative or genitive form depending on the sentence structure. In nominalized embedded clauses, when the verbs take one of the nominalizing suffixes, such as -d*I*k, the possessive agreement suffix on the verb licenses genitive case marker on the embedded subject (Özsoy, 2001):

(24) (Ben) [sizin Ankaraya gittiğiniz]-i duydum.
(I) [you-GEN Ankara-DAT go-NOM-2PLPOSS-ACC hear-PAST-1SG
'I heard that you went to Ankara'

(Özsoy, 2001, p. 216)

In root clauses or elsewhere, the overt subject takes the nominative case, which is phonologically null in Turkish (Kornfilt, 2003).

[8] On the other hand, Öztürk (2002) resorted to a non-pro-drop analysis of Turkish claiming that overt pronouns are base-generated in [Spec, TopP] and *pro* in Turkish is the inflectional agreement marker and this leads her to the idea that Turkish is a non-pro drop language.

Second, when AGR is not present on the verb, subject case is not licensed by the AGR, rather it takes the the accusative form. This is also known as the Exceptional Case Marking (ECM)[9].

Consider the sentences below:

(25) a. [Sen dün sabah evde yemek
You-SG-NOM yesterday morning home-LOC food
pişiriyordun] sandım
cook-PROG-PAST-2SG believe-PAST-lSG
'I believed (that) you were cooking food at home yesterday morning'

b. [Seni dün sabah evde yemek
You-SG-ACC yesterday morning home-LOC food
pişiriyordu] sandım[10]
cook-PROG-PAST (No AGR) believe-PAST-lSG
'I believed you to have been cooking food at home yesterday morning'

c. [*Sen dün sabah evde yemek
You-SG-NOM yesterday morning home-LOC food
pişiriyordu] sandım
cook-PROG-PAST (No AGR) believe-PAST-lSG
Intended reading 'I believed (that) you [Nom.] were yesterday morning cooking food at home yesterday morning'

(Kornfilt, 2003, pp. 134-135)

In (25a) the subject of the embedded clause bears full tense, aspect, and mood (TAM) markers with an agreement ending on the verb. Accordingly, the overt subject is marked with a nominative case. However in (25c) the same structure without agreement marker but having TAM markers

[9] In Turkish, when the subject of the embedded clause is marked with accusative case (rather than the genitive case) in finite clause, this phenomenon is known as the Exceptional Case Marking (Özsoy, 2001):
Ben onu geldi sandım.
I-NOM s/he-ACC come-PAST suppose-PAST-1SG
'I supposed that s/he came'.

[10] Kornfilt (2003) noted that this structure is also possible with an agreement marker on the verb.

on the verb cannot license nominative case on the subject, which yields ungrammatical structure. Therefore, it can be argued that agreement licenses subjects rather than the TAM morphology. Further, when AGR is absent on the verb, overt subject bears the accusative case as can be seen in (25b).

From the discussion above, Kornfilt (2003) concluded that when the verb in subordinate clauses has the full TAM morphology on the verb but lacks AGR, accusative case is assigned on the subject (25b). On the other hand, when the verb in embedded clauses has both TAM and AGR morphology, embedded subject is marked by nominative case (25a). Further, the verb in the nominalized embedded clauses which does not bear full TAM markers but has the AGR morphology assigns genitive case on the embedded subject, which can be seen in (24).

2.5.1.3. Null Subjects in Turkish

As discussed before, null subjects are allowed in Turkish. Studies on the NSP have been characterized to explain how *pro* is licensed and identified when null subjects are used. In an influential study, Özsoy (1987) investigated the features which characterize Turkish as a null subject language by specifically focusing on the binding properties of *pro*. She claimed that the empty subject in Turkish is *pro*. Accordingly, *pro* is licensed by the AGR functional category. In other words, the morphological endings on the verb license and identify *pro*.

At that point, it is important to give some syntactic properties of null subjects in Turkish to understand in which grammatical constructions null subjects are permitted. Considering the above points, it can be argued that Turkish allows null subjects in a variety of constructions (Özsoy, 1987). First, subject of a tensed clause in simple sentences might be null:

(26) Ben / *pro* geldim
I come-PAST-1SG
'I came'

(Özsoy, 1987, p. 83)

In subject and object complement constructions, subject can be phonologically left empty as well:

(27) Senin / *pro* çok yorulduğun belli
you-GEN very tired-NOM-2POSS obvious
'That you are very tired is obvious'

(28) Ayşe benim / *pro* bildiri okumadığımı duymuş
Ayşe I-GEN paper read-NEG-NOM-1SGPOSS-ACC hear-PAST
'Ayşe has reportedly heard that I did not give a paper'

(Özsoy, 1987, p. 83)

Null subjects can also be seen in embedded clauses as well as in matrix clauses.

(29) Biz/*pro* [senin/*pro* İstanbul'a gittiğin]-i
We you-GEN Istanbul-DAT go-NOM-2SGPOSS-ACC
bilmiyorduk
know-NEG-PROG-PAST-1PL
'We did not know that you went to Istanbul'

(Gürel, 2006, p. 264)

As the examples displayed, *pro* in Turkish can alternate with an 'overt lexical item' and the meaning of *pro* can be recovered from the pronominal agreement suffixes (Özsoy, 1987).

2.5.1.4. The OPC in Turkish

As stated before the OPC is claimed to be a universal feature of all null subject languages. However, there are much discussions about whether the OPC holds in Turkish or not. Among others, Rothman and Iverson (2007) stated that OPC is a UG-based constraint working in Turkish as well with other null-subject languages. On the other hand, Gürel (2006) put the universality of the OPC into question in Turkish by giving interpretations on the co-indexation between the embedded and matrix clause subjects.

She claimed that *o (s/he)* has a different binding relation with regard to the OPC. In the case of co-indexation between embedded and matrix subjects, *o (s/he)* can be bound to neither a referential antecedent nor a quantified/wh antecedent:

(30) a. Elif*i* [onun**i/j* çok inatçı olduğunu] biliyor
Elif s/he-GEN very stubborn be-NOM-3SG-ACC know-PROG
b. Elif*i* [*proi/j* çok inatçı olduğunu] biliyor
Elif *pro* very stubborn be-NOM-3SG-ACC know-PROG
'Elif*i* knows that s/he**i/j* / *proi/j* is very stubborn'

(31) a. Herkes*i* [onun**i/j* dahi olduğunu] düşünüyor
Everybody s/he-GEN genius be-NOM-3SG-ACC think-PROG
b. Herkes*i* [*proi/j* dahi olduğunu] düşünüyor
Everybody *pro* genius be-NOM-3SG-ACC think-PROG
'Everybody*i* thinks that s/he**i/j* / *proi/j* is a genius'

She proposed that in (30a), the embedded pronoun *o (s/he)* cannot be bound to the referential subject *Elif* in contrast to what the OPC requires. As a matter of fact, there is no difference between (30a) and (31a) with respect to the co-indexation of the embedded and matrix subjects. According to the OPC, there should be a difference in the grammaticality of (30a) and (31a). Yet, the given examples do not display referential versus quantified antecedent asymmetry. Therefore, these claims make the OPC disputable in Turkish since there is no contrast in binding of overt embedded subject pronouns in the context of referential versus quantified/wh antecedents.

The fact that overt embedded *o (s/he)* cannot be bound to referential subject does not obey the OPC constraints. Therefore, Gürel (2006) claimed that as the contrast between overt pronoun *o (s/he)* and *pro* is not limited to the antecedent type, the OPC becomes disputable in Turkish.

However, contrary to what Gürel (2006) asserted, depending on the context, overt pronoun *o (s/he)* in Turkish can be co-referential with the DP matrix subject as in the case of other null subject languages. Rothman (2007) argued that in Spanish, native speakers tend to interpret the overt third person pronoun as disjoint since it signals contrastive focus. The same argument can be put forward for Turkish as well in which the overt embedded pronoun *o (s/he)* tends to be interpreted as creating contrastive focus in topic shift contexts by referring to a third party in the discourse:

(32) a. Merve*i* onun**i/j* bu spordaki en yetenekli öğrenci
Merve s/he-GEN this sport-LOC-in most talented student
olduğunu düşünüyor
be-NOM-3SG-ACC think-PROG
'Merve*i* thinks that she**i/j* is the most talented student in this sport'

In contrast to Gürel (2006), it can be argued that an overt embedded pronoun *o (s/he)* can also be co-referential with the referential DP antecedent when the contrast is the topic itself rather than the focus, making it contrastive topic in topic continuity contexts. That is to say, when the target sentence is interpreted within a context which does not form contrastive focus, the embedded *o (s/he)* can be co-referential with the referential DP:

The context: Sınıf arkadaşım Merve voleybol oynamayı çok seviyor. Kendisi şu an okul voleybol takımının kaptanlığını yapmaktadır. (My classmate, Merve, loves playing volleyball. She is the captain of the voleyball team in our school).

(32) b. Merve*i* onun*i/*j* bu spordaki en yetenekli öğrenci
Merve s/he-GEN this sport-LOC-in most talented student
olduğunu düşünüyor
be-NOM-3SG-ACC think-PROG
'Merve*i* thinks that she*i/*j* is the most talented student in this sport'

On the other hand, the embedded *o (s/he)* cannot be co-referential with a quantified/wh antecedent no matter whether it is interpreted within or without a context:

(33) Herkes*i* onun**i/j* kazanacağını düşünüyor.
Everybody s/he-GEN win-NOM-3SG-ACC think-PROG
'Everybody*i* thinks that s/he**i/j* will win'

These observations were supported in a separate study conducted by Çınar and Çakır (2019). Their study on monolingual Turkish speakers questioned whether the OPC holds in Turkish or not. In their experimental study, they found out that depending on context, overt pronoun *o (s/he)* in Turkish can be co-indexed with a quantified or wh-antecedent. They concluded that the OPC is a universal feature of null subject languages.

With respect to the above points, the OPC constraints on the binding of subjects in Turkish are summarized below:

In a referential DP antecedent context:

(34) a. Murat*i* [*proi/j* futbol oynamayı sevdiğini] söyledi
Murat football play-NOM-ACC like- NOM-3SG-ACC say-PAST

b. Murat*i* [onun*i/j* futbol oynamayı sevdiğini] söyledi
Murat s/he-GEN football play-NOM-ACC like-NOM-3SG-ACC say-PAST
'Murat*i* said that he*i/j* / *proi/j* likes playing football'

Here, the interpretation of null embedded subject in (34a) has ambiguity of reference, having both bound and disjoint reading interpretations. In bound reading, the empty category *pro* refers to the antecedent. On the other hand, in disjoint reading, *pro* refers to a third party which is not present in the binding domain of *pro*. Considering the overt embedded pronoun in (34b), there is an ambiguity of reference again. When it has the bound reading, the subject has the contrastive topic function whereas it creates the contrastive focus environment when it has a disjoint reading.

In a quantified antecedent context:

(35) a. Herkes*i* [*proi/j* futbol oynamayı sevdiğini] söyledi
Everybody football play-NOM-ACC like-NOM-3SG-ACC say-PAST

b. Herkes*i* [onun**i/j* futbol oynamayı sevdiğini] söyledi
Everybody *s/he*-GEN football play-NOM-ACC like-NOM-3SG-ACC say-PAST
'Everybody said that s/he**i/j* / *proi/j* likes playing football'

In (35a), null embedded subject might be bound to an antecedent or it might refer to a third party in the discourse, having both bound and disjoint readings respectively. However, overt embedded pronoun can only have a disjoint reading in (35b).

Considering the OPC constraints in Turkish, the current study claims that the OPC is a universal feature of null subject languages, which holds in Turkish as well. Therefore, the study draws on the OPC constraints in Turkish to understand whether the syntax of null and overt subject is acquired or not in L2 Turkish.

2.5.2. The Discourse of Null and Overt Subjects in Turkish

2.5.2.1. Studies on Discursive Constraints on Null and Overt Subjects

Enç (1986) investigated the discourse-based constraints that null and overt subjects are allowed in Turkish. She stated that null subject must be used if the already established topic continues. Otherwise, the use of overt subject in place of it would render the sentence 'semantically redundant'. On the other hand, deliberate use of overt subject indicates a topic change. Therefore, the difference between the sentences (36a) and (36b) below stems from topic shift.

(36) a. *pro* bankaya gitmeyi unuttum
bank-DAT go NOM-ACC forget-PAST-1SG
b. Ben bankaya gitmeyi unuttum
I bank-DAT go NOM-ACC forget-PAST-1SG
'I forgot to go to the bank'

(Enç, 1986, p. 197)

In (36a) as the topic of the sentence, *ben (I)* has already been established in the previous discourse, topic continuity is preserved, requiring null subject to be used. On the other hand, in (36b), the sentence can only be interpreted in a context where the overt subject, *ben (I),* signals a new topic. Accordingly, the use of the overt subject becomes obligatory when the subject is introduced into the discourse as new information.

As well as indicating topic shift another function of overt subject is to 'contrast references':

(37) Arabayı Ahmet yıkamadı ben yıkadım
car-ACC Ahmet wash-NEG-PAST I wash-PAST-1SG
'Ahmet didn't wash the car, I did'

(Enç, 1986, p. 204)

In (37) subject pronoun *ben (I)* is overtly marked in a context where the reference of it is contrasted with another pronoun or NP in the sentence, which is *Ahmet*. In other words, the introduction of a new referent has a contrastive role, hence the use of overt subject becomes obligatory.

As a third function, overt subjects are to be used to create a contrast, yet it is not employed to contrast a reference in the discourse, rather it is used to give ‘counter example’:

(38) a. Bu havada kimse top oynamaz
this weather-LOC nobody ball play-NEG-AOR
‘Nobody will play ball in this weather’

b. Ben oynarım
I play-AOR-1SG
‘I'll play’

(Enç, 1986, p. 205)

In this example, (38b) provides counter example to the sentence (38a). Therefore the overt subject *ben (I)* needs to be employed to create this contrast.

Considering the above examples, Enç (1986) grouped the functions of overt subjects in Turkish into three: to change topic, to contrast a reference, and to give a counter example to the previous utterance. Therefore, it can be claimed that overt subjects are used either in topic shift context or to create contrast.

Erguvanlı-Taylan (1986) also emphasized the discourse dependent nature of null and overt subjects in Turkish and focused on how the use of null and overt subject distinction is allowed in a variety of constructions. Accordingly, she claimed that one of the discursive features of overt subject in Turkish is to create contrastive focus:

(39) **pro* / Ben işe geciktim ama **pro* / sen henüz gecikmedin
**pro* I work-DAT be late-PAST-1SG but **pro* you yet be late-NEG-2SG
‘I am late to work but you are not late to work yet’

(Erguvanlı-Taylan, 1986, p. 210)

In this example, the referents of two independent sentences are contrasted. Thus, the subject pronoun in the second independent clause, as well as the subject of the first clause, *sen (you),* has to be overtly employed as it conveys new information to signal contrastive focus; otherwise, the sentence would be ungrammatical.

Similarly, since the answer to a question which asks about the subject marks new information, overt subject is required:

(40) a. Bu raporu kim yazdı?
this report-ACC who write-PAST
'Who wrote this report?'

b. **pro* / Ben yazdım
**pro* I write-PAST-1SG
'I wrote'

(Erguvanlı-Taylan, 1986, pp. 210-211)

As the question which asks about the subject involves new information, subject in the answer must be overtly marked.

Ruhi (2002) approached the issue of null vs. overt subject distribution from the perspective of 'topicality hierarchy' of Givon (1983). Regarding this, she focused on the relationship between information retrieval and its realization on null and overt subject use. Regarding the 'topicality hierarchy', Ruhi (2002, p. 81) adapted the categories of Givon (1983) to Turkish to account for how subjects are retrieved in the discourse:

Null pronoun (Ø eve gitti+ Ø) — Easy to Retrieve
Agreement (Ø eve gitti+m)
Unstressed pronoun (Adam ona kitabı verdi)
Stressed pronoun (Adam kitabı bana değil, ONA verdi)
Kendisi (kendisi İstanbul Lisesi'nde bir öğrenci iken…)
Lexical NP (Ayşe eve gitti)
Modified NP (karda oynayan çocuklar eve gitmek istemediler) — Difficult to Retrieve

Accordingly, if the topic of the sentence is referred previously in the discourse, speakers tend to accept that it is already activated in the hearer's mental world. By considering that speakers can easily retrieve the reference of the NP, they tend to express this with smaller referential units such as by leaving it unexpressed. However, if the topic continuity is interrupted by other possible references, overt subject has to be employed considering the fact that this is not present in the hearers' mental worlds.

Overall, the studies of Enç (1986), Erguvanlı-Taylan (1986), and Ruhi (2002) threw light on the issues of how null-overt subject distribution becomes appropriate in some constructions. It could be understood from these studies that topic continuity is signaled by the use of null subject whereas topic shift and contrastive use of pronoun or lexical subject are marked by overt subject. Therefore, L2 Turkish learners need to be aware of these constraints in order to use the subjects appropriately. Since Turkish is a null-subject language, the use of null and overt subjects is determined by the information states introduced by the speaker to the hearer's mental world. That is to say, contexts constrain the choice to employ either null or overt subject. Therefore, at this point, it can be claimed that IS can account for the use of null and overt subject distinction at the syntax-discourse interface and this needs to be studied across different language speakers acquiring L2 Turkish.

2.5.2.2. Topic Continuity and Topic Shift in Null and Overt Subjects in Turkish

In the light of the studies on Turkish given above, this part reconsiders how topic continuity-topic shift articulation interacts with subject distribution in Turkish by outlining the discursive constraints. Regarding this, when subjects are considered as topical elements, null subjects refer to topic continuity in the sentence. Therefore, unless a new referent is present in the discourse, there is no reason to mark the subject overtly. Otherwise, this renders the sentence pragmatically anomalous:

(41) Ali sınava çok çalıştı ama *o / *Ali / *pro* başarısız oldu
Ali exam-DAT hard study-PAST but *he / *Ali *pro* fail-PAST
'Ali studied hard for the exam but he failed'

In (41), considering that the embedded subject refers to the same person in the antecedent, null subject must be used in the second clause due to topic continuity. Otherwise, the use of the overt pronoun, *o (he*), or the lexical subject, *Ali*, would be semantically redundant or inappropriate.

From another perspective, when subject is interpreted in a topic shift context, overt subject needs to be employed:

(42) Ben voleybol oynamayı seviyorum
I volleyball play-NOM-ACC like-PROG-AOR-1SG
ancak o / Ali / *pro* futbol oynamayı seviyor
but he / Ali *pro* football play-NOM-ACC like-PROG-AOR-1SG
'I like playing volleyball but he / Ali / *pro* likes playing football'

In (42) since new referent (*o/he or Ali*) is introduced into the discourse in the second clause, which is contrasted with the referent of the first sentence, overt pronominal subject (*o/he*) or lexical subject (*Ali*) needs to be employed to fulfill the given discursive function.

Similarly, in question-answer pairs, when subject of the clause (either embedded or matrix) is asked, overt subject is required as the topic shifts:

(43) Question: Kim geldi?
Who come-PAST
'Who came?'
Answer: O / Ali / *pro* geldi
He / Ali / *pro* come-PAST
'He / Ali came'

(44) Question: Ali kimin geldiğini gördü?
Ali who-GEN come-NOM-ACC see-PAST
'Who did Ali see was coming?'
Answer: Onun / Ayşe'nin / *pro* geldiğini gördü
S/he-GEN / Ayşe-GEN *pro* come-NOM-ACC see-PAST
'He saw s/he / Ayşe / *pro* was coming'

In (43) as the subject is being asked, a new referent is introduced into the discourse. Considering this, a pronoun or lexical subject needs to be overtly marked. When the subject is omitted, the sentence becomes ungrammatical. In the same way, when the embedded subject is asked, the answer must include an overt subject as well. Therefore in (44) the answer to the question includes the overt subject, *onun(s/he-GEN)* or *Ayşe'nin (Ayşe-GEN).* The reason for the overt subject to be used is that it signals the change of topic in the sentence. However, when the embedded object is asked, the focused element shifts to the embedded object. Therefore, the embedded subject must be realized by a null subject:

(45) Question: Ali Ayşe'nin ne yaptığını gördü?
Ali Ayşe-GEN what do-NOM-ACC see-PAST
'What did Ali see Ayşe doing?'
Answer: *Onun / *Ayşe'nin / *pro* okula gittiğini gördü.
S/he-GEN / Ayşe-GEN school go-NOM-ACC see-PAST
'Ali saw Ayşe going to school'

Unlike (44), here only null subject can be employed . Since the referent of the embedded subject has already been established in the question, it must be marked by a phonologically null subject in the answer due to topic continuity.

Focused elements can be contrastive. As Ballester (2013, p. 113) put it, the use of overt subjects can be resulted from 'emphatic or contrastive reasons' where 'the omission indicates lack of emphasis'. This can be illustrated below:

(46) O kopya çekti[11]
S/he cheat-PAST
S/he cheated!

In this example, subject is overtly marked to give emphasis, indicating that it was *s/he* who cheated rather than anyone else in the discourse. Otherwise, it conveys topical, non-emphatic information in a case when the subject is marked null.

Similarly, in embedded clauses, overt embedded subject can signal contrastive focus when it is contrasted with the referent of the matrix subject. The example (32a) is revisited below:

(32) a. Merve*i* onun**i/j* bu spordaki en yetenekli öğrenci
Merve s/he-GEN this sport-LOC-in most talented student
olduğunu düşünüyor
be-NOM-3SG-ACC think-PROG
'Merve*i* thinks that she**i/j* is the most talented student in this sport'

[11] This example is translated from Spanish into Turkish which was originally given by Ballester (2003, p. 113)

Here, referent of the overt embedded pronoun *(o/she)* is contrasted with the referent of the matrix subject *(Merve)*. Therefore, this sentence is interpreted in a context where Merve thinks that someone else is the most talented student rather than she.

Conversely, when contrastive focus appears in the topical element, it is called contrastive topic (Umbach, 2004). It occurs when new or unknown information is contrasted with the already established old information about the same subject, requiring overt subject to be used. The example (32b) is restated below:

(32) b. Merve*i* onun*i/*j* bu spordaki en yetenekli öğrenci
Merve s/he-GEN this sport-LOC-in most talented student
olduğunu düşünüyor
be-NOM-3SG-ACC think-PROG
'Merve*i* thinks that she*i/*j* is the most talented student in this sport'

If the embedded subject is bound to an antecedent as in the case of (34b), this sentence can only be interpreted in a context where *o (s/he)* refers to *Merve*. In that case, the sentence would be paraphrased as 'Merve thinks that she herself (rather than anyone else in the discourse) is the most talented student in this sport'.

Overall, the topic continuity and topic shift constructions as they pertain to the realization of null vs. overt subject distinction have been explained with examples. In a nutshell, in Turkish, topic continuity is realized by null subjects whereas topic shift is signaled by overt subjects. In other cases, contrastive structures always require overt subjects. As for the position of null and overt subject distinction, they can be employed both in the embedded and matrix clauses, where overt subject represents new information.

2.5.3. Quantifiers and Wh-words in Turkish

Göksel and Kerslake (2005) claimed that quantified expressions in Turkish can function as pronominals or determiners which take NPs. Concerning the pronominals, the only pronominal quantifier in the subject position is *herkes (everyone):*

(47) *Herkesi* onun*$_{i/j}$ çalışkan olduğunu biliyor
'Everyonei knows that s/he*$_{i/j}$ is hardworking'

There are also pronominals which interact with negations and have negative meanings, which are called negative polarity items. These are *kimse / hiç kimse / hiçbir kimse* (*no one, any one*) and *hiçbir / hiçbirisi (none of, any of)*:

(48) *Kimsei* onun*$_{i/j}$ camı kırdığını söylemedi
No onei said that s/he*$_{i/j}$ broke the glass

As for the determiners functioning as quantified expressions, Göksel and Kerslake (2005) listed them as the following: *birkaç (a few, several), bazı / kimi / bir kısım (some, certain), birçok (many, a lot of), bir takım (some, a number of), çok (a lot of, many), çoğu (most), hiçbir (no, any),* and *herhangi bir (any),* all of them functioning as indefinite quantified determiners:

(49) *Çoğu insani* onun*$_{i/j}$ zeki olduğunu düşüyor.
'*Many peoplei* think that s/he*$_{i/j}$ is intelligent'

On the other hand, the determiners *her (every)* and *bütün / tüm (all, the whole of)* function as universal quantifiers, referring to whole class:

(50) *Her çocuki* onun*$_{i/j}$ başarılı olduğunu biliyor
'*Every childi* knows that s/he*$_{i/j}$ is successful'

With respect to wh-expressions as antecedent to an overt pronoun, the only wh-word in the subject position is *kim (who):*

(51) *Kimi* onun*$_{i/j}$ geleceğini söyledi?
Whoi has said that s/he*$_{i/j}$ will come?

2.5.4. Wh-Phrases in Turkish

Wh-questions are questions formed by wh-phrases. Considering this, the following list can be considered as wh-phrases which can be used to form wh-questions in Turkish: *kim(who),*

ne(what), hangi(which), nere(where), ne zaman(when), kaç (how many/what time), ne kadar(how much), nasıl (how), niye, neden, niçin (why) (Göksel & Kerslake, 2005).

Turkish is considered to be a typical example of *wh-in-situ* language where wh-phrases are base generated and do not overtly move to [Spec, CP] as in the case of *wh-movement* languages (Akar, 1990; Özsoy, 2009; İşsever, 2009). That is, wh-phrases are formed in the position where they are first generated and do not move in overt syntax. Following Huang (1982), it has been claimed that wh-phrases move in LF (Akar, 1990). However, there are other accounts as well. For example, Özsoy (2009) set forth a view regarding Turkish as (non) *wh-in-situ* language where she claimed that wh-scrambling in Turkish is a syntactic operation that takes place in overt syntax. From another perspective, İşsever (2009) tried to account for how focus licenses wh-phrases in overt syntax in Turkish with a syntactic operation called null operator.

Setting these theoretical issues aside, wh-phrases can be found in embedded and matrix clauses which can ask the subject and object of the clause. Considering the subject wh-questions, the same rules and restrictions on case or number for subjects also apply to wh-phrases. Therefore, the wh-phrase, *kim (who)* as the subject of the clause which refers to a person can be in the nominative (*kim*/*who-NOM*), genitive (*kim-in/who-GEN*), and accusative (*kim-i/who-ACC*) forms (for the discussion of subjects with accusative case, see section 2.5.1.2.).

In simple / root sentences, *kim* (*who)* bears the nominative case:

(52) *Kim* Ali'yi gördü?
Who Ali-ACC see-PAST
'Who did see Ali?'

In embedded clauses, *kim (who)* bears the genitive case in the subject position when the clause is nominal (when the verb carries a nominalizing suffix, such as -d*I*k):

(53) Ali *kim*in kitap okuduğunu gördü?
Ali *who*-GEN book read-NOM-POSS-ACC see-PAST
'Who did Ali see reading a book'

In the ECM constructions, *kim (who)* can bear accusative case in the embedded clause where the verb has the TAM markers but lacks agreement[12]:

(54) Ali *kim*i kitap okuyor sandı?
Ali who-ACC book read-PROG believe-PAST
'Who did Ali believe was reading a book?'

Note that the answers to above subject wh-questions – whether in the root clause or complex clause – require overt subjects since the subject is asked.

Considering the wh-phrases referring the object in the clause, *kim (who)* bears accusative or dative case either in the simple / root clause or in the complex embedded clause:

(55) Ali *kim*-i seviyor?
Ali *who*-ACC love-PROG
'Who does Ali love?'

(56) Ali *kim*-e çiçek verdi?
Ali *who*-DAT flowers give-PAST
'To whom did Ali give flowers?

(55) and (56) are instances of simple clauses where the wh-phrase refers to direct object and indirect object respectively. On the other hand, in the examples below the same wh-phrases refer to the objects of complex-embedded clauses:

(57) Ali *kim*-i sevdiğini söyledi?
Ali *who*-ACC love-NOM-POSS-ACC say-PAST
'Who did Ali say he loved?'

(58) Ali *kim*-e çiçek verdiğini söyledi?
Ali who-DAT flowers NOM-POSS-ACC say-PAST
'To whom did Ali say he give flowers?'

[12] As *kim (who)* refers to third person (which does not have agreement suffix), it lacks overt agreement marker, anyway.

The same restrictions for *kim (who)* in object wh-questions also apply to *ne (what)* wh-phrase which refers to entities or actions[13]:

(59) Ali *ne*/*ne* (y)-i söyledi?
Ali what/what-ACC say-PAST
'What did Ali say?'

(60) Ali *ne*/*ne*(y)-i okuduğunu söyledi?
Ali what/what-ACC read-NOM-POSS-ACC say-PAST
'What did Ali say he was reading?'

Note that the answers to object wh-questions – whether in the root clause or complex clause – require null subjects in the answers whereas the object needs to be overtly marked.

[13] The accusative case on the wh-word *ne (what)* might not be overtly marked in simple and embedded clauses.

CHAPTER 3

METHODOLOGY

This chapter presents the methodology of the study. First of all, the participants of the study are introduced. Following this, the tasks conducted on adult L2 Turkish speakers are explained in detail. Besides, the data collection procedure is also introduced.

3.1. PARTICIPANTS

There are two groups of participants in the study: Control group and learner group. Learner group is further divided into two sub-groups: Discourse null subject group and non-null subject group. In order to select participants from both groups, criterion sampling technique is used. Detailed information about the participants of the study is given below:

3.1.1. Control Group

The control group of the study are native speakers of Turkish. As stated before, Turkish is an agreement null subject language considering the null subject parameter (NSP) typology. The participants are first grade students of the Department of English Linguistics at Hacettepe University. The number of participants who attended the study is 26. Their ages range from 18 to 41. Participants were selected on the basis of two criteria:

1. They are not formally taught either the formal or discursive constraints on the use of null and overt subject distribution. The reason for selecting this criterion is to prevent the native speakers from realizing what is being assessed in the study. Another aim for selecting only the first grade students as participants is to make sure that they have not yet been formally taught the distinction between null and overt subjects in the context of formal and discursive features when the task has been carried out.

2. They are native speakers of Turkish. The aim of selecting this criterion is to avoid possible L1 interferences for bilingual speakers. Therefore, bilingual speakers have not been included in the study.

3.1.2. Learner Group

The learner group of the study comprises two sub-groups, which are composed of adult native speakers of Korean and Japanese as the discourse null subject (DNS) group and English and German learners as the non-null subject (NNS) group who acquire L2 Turkish (n=68). Besides, each learner group is further divided into two sub-groups based on two proficiency levels: Intermediate or advanced. Considering this, participants were selected on the basis of a number of different criteria:

1. The first criterion is that they are native speakers of either Korean, Japanese, English and German who are not bilinguals. The reason for selecting this criterion is to make sure that the participants have not been exposed to another language to hinder possible L1 interferences other than the language being assessed. Hence, bilingual speakers were not incorporated in the study.

2. Second criterion is that, based on their current or previous enrollment in Turkish as a second language courses, L2 learners are either at the intermediate or advanced proficiency level – corresponding to B1 and C1 proficiency levels respectively according to European Language Portfolio (2004). The reason for selecting this criterion is to assess the interlanguage development of formal and pragmatic properties of null and overt subject use of L2 speakers from the intermediate to the advanced level and to compare the L2 grammar of typologically two different language groups among themselves and with that of the native speakers.

3. Another criterion is that they are not exposed to formal teaching of null and overt subject distribution. The reason for this criterion is to prevent them from finding out what is tested in the study. Moreover, participants who acquire Turkish outside Turkey via formal teaching have been incorporated into the study depending on the study carried out by Rothman and Iverson (2007). They conducted a study on two groups of L2 Spanish speakers at the same proficiency level. One group was exposed to natural input; that is, they learned the target language within a setting where the language is spoken. The other group was not exposed to natural input, who only received formal instruction in a setting where the target language is not spoken. As the findings of their study indicated, natural input did not prove to be a required setting. Therefore, in the light of this study, participants living abroad who have not been to Turkey before were included in the study as well.

4. The final criterion is that all participants attended or were attending Turkish language courses and had a certificate of Turkish either at the intermediate or advanced level when the study took place. The reason for selecting this criterion is that a placement test was not given to each participant to determine their proficiency level on an individual basis; rather the certificates that they received from Turkish language courses were taken into account.

Therefore, as the proficiency level of the most L2 speakers had already been specified with respect to the regulations of language courses which they had attended before or were attending at the time of the study, a placement test was not carried out over the participants.

In the next section, each learner group that took part in the study are introduced.

3.1.2.1. Discourse Null Subject Group

As stated before, the DNS languages represent a group of languages within the typology of the NSP which can be characterized as null subject languages yet it differs from the agreement-null subject languages in that agreement endings on the verb are missing. Rather, *pro* is recovered from the discourse, hence they are called discourse null subject languages.

Considering the DNS languages, Korean and Japanese L2 speakers of Turkish comprise the first experimental group in the study. Since both languages are null subject languages, these languages obey the syntactic constraint, known as the Overt Pronoun Constraint (OPC), which means that the OPC holds in Korean and Japanese as well. Unlike Turkish, they can allow null subjects without agreement markers on the verb. The same discursive constraints of topic continuity and topic shift which determine the realization null vs. overt subject distribution also apply to these languages. Another feature of these languages is that they employ morphological particles as well to signal pragmatic information of topichood (Vallduvi, 2003). Therefore, one can claim that the grammar of these languages are sensitive to some discursive constraints as in the case of Turkish.

The data from these languages have been gathered to form the DNS learner group. The reason for grouping these languages together is that both languages behave similar in terms of all the formal and discursive constraints questioned in the study. Moreover it has been further argued that L1 pairs with the same constraints are not selective in the syntax and discourse of null and overt subjects (e.g. Sorace & Filiaci, 2006). This means that the group results would not change

depending on which language is selected on condition that they have the same constraints. Another practical outcome of grouping these languages together rather than drawing on only one of them is to increase the number of participants attended to the study. Therefore, in the light of this study, Korean and Japanese have been selected to form the DNS group.

Considering the above points, the number of the DNS participants in the study is 42 (20 Korean; 22 Japanese – 27 advanced; 15 intermediate). Their ages range from 22 to 59. When the study was conducted, most of the participants had been in Turkey for different reasons. Some participants were exchange students in Turkey from Basun Foreign Studies University in South Korea and from University of Foreign Studies in Tokyo and School of Foreign Studies in Osaka, Japan. These L2 speakers had been attending Turkish language courses at the time of the study such as Ankara University TÖMER and Hacettepe University TÖMER. Another group of participants were graduate and undergraduate students of several universities in Ankara and Kayseri who were studying Turkish for different reasons. Some participants were working for the Center of Korean Culture in Ankara, an official cultural institution of the Embassy of South Korea and Turkish-Japanese Foundation Culture Center, based in Ankara. Apart from this, when the study was conducted, a limited number of participants were in South Korea and in Japan who study Turkish. The final group comprised participants who had settled in Turkey, working for certain institutions.

3.1.2.2. Non-Null Subject Group

Considering the NSP typology, The NNS languages do not allow null subjects in finite clauses. As the most typical NNS languages, English and German speakers constitute the second experimental group in the study. In both languages, subject position either in the matrix or embedded clause cannot be left empty. However, concerning this, the syntax of German differs from English in that expletive subjects in German can be left empty unlike English. Since both languages are non-null subject languages, such discursive constraints as topic continuity and topic shift do not have an influence on the choice to use either overt or null subject. In other words, the distinction between null and overt subjects are missing in English and German. Rather, the information structure (IS) of both languages are realized by intonation (Vallduvi, 2003). Furthermore, the OPC does not hold both in English and German.

As in the case of the DNS speakers and depending on the same accounts, the data from English and German have been gathered together to form the NNS learner group in the study.

Considering this learner group, the number of the NNS participants is 26 (12 English; 14 German – 15 advanced; 11 intermediate). Their ages range from 21 to 61. A group of participants had been attending Turkish courses in Turkish-American Association, Ankara University TÖMER and Hacettepe University TÖMER. Another group of participants were living in Turkey, working for several institutions when the study was conducted. Some participants were students of the Department of Turcology in Johannes Gutenberg-University in Germany. Another group of participants comprised the exchange students at Hacettepe University in Turkey. The last group consisted of participants who had settled in Turkey, working for certain institutions.

3.2. DATA COLLECTION TOOLS

In this section, in order to assess the performances of the given L2 Turkish speakers, the tests which have been employed to collect data are described.

Concerning this, three tasks were carried out in order to assess the performances of the DNS and NNS speakers of L2 Turkish speakers on the syntactic and pragmatic constraints governing the use of null and overt subject distribution in Turkish. The tasks are the Overt Pronoun Constraint Task (OPCT), the Contextualized Grammaticality Judgment Task (CGJT), and the Question-Answer Task (QAT). The first task aims to assess the acquisition of syntactic features constraining the use of null and overt subject distribution. With this object in mind, the task questions the co-reference interpretation of the L2 speakers between the subjects of embedded and matrix clause on certain contextualized sentences in order to understand the sensitivity of the L2 groups to formal constraints. The second task aims to evaluate the interpretation of L2 speakers on certain discursive and pragmatic structures – namely, the topic continuity-topic shift realization – which constrain the use of subjects in order to understand how the interlanguage of L2 speakers represent the discourse-bound nature of the use of null and overt subject distribution at the syntax-discourse interface. The final task questions how the interpretation of L2 speakers on discursive constraints are conditioned as answers to subject or object questions in complex and simple wh-clauses. By doing so, this task also aims to understand whether the position of subject – either in the embedded or matrix clause – is conditioned by discursive constraints or not.

For each task, the test items were given as translated into the L1 of the speakers under each context and sentence so that the vocabulary would not hinder their interpretation of the target structures. Furhermore, the test items in the tasks were given to the participants in the same order. Accordingly, data collection tools are the following:

3.2.1. The Overt Pronoun Constraint Task (OPCT)

The Overt Pronoun Constraint Task (OPCT), which was first used by Kanno (1997) and employed by others (Gürel, 2006; Rothman, 2009 etc.), is used to assess the syntactic knowledge of the intermediate and advanced DNS and NNS speakers of L2 Turkish on the formal distribution of null and overt subjects. Considering this, if the L2 learners are successful in the OPCT, the results will be interpreted as successful acquisition of the syntax of null and overt subjects. Then, the results of this task will be compared with the discourse-based tasks to understand whether syntactic constraints are acquired earlier than discursive constraints.

In this task, the participants are instructed to determine the co-reference interpretation between the subjects of embedded clause (either overt pronominal *o (s/he)* or null) and matrix clause (either quantified/wh-word or referential antecedent). Considering this, they are asked to select the interpretation of the embedded subject: either the same person in the matrix subject or another person who is not the matrix subject. Accordingly, the OPCT consists of four conditions, which are summarized in Table 3 below:

Table 3

The overt pronoun constraint task

Condition	**The position of subjects**	
Types of conditioning	**Matrix clause subject**	**Embedded clause subject**
Con 1	Quantifier/wh-word	Null Pronoun
Con 2	Quantifier/wh-word	Overt Pronoun
Con 3	DP (referential subject)	Null Pronoun
Con 4	DP (referential subject)	Overt Pronoun

Context is given before each sentence where the referents of null and overt subjects are already established in the hearer's mental world. The aim of establishing contexts is to provide the L2 learners with background information so that they can disambiguate the interpretation of different references of the embedded subject. As context determines the interpretation, some contexts

require the embedded subject to be co-referential with the matrix subject and some require a disjoint reading. Note that, independent of context, overt embedded pronoun *o (s/he)* cannot be bound to a quantified/wh-word antecedent, which is represented in the condition 2. The other three conditions have two interpretations depending on the context. Given this, the aim is to evaluate whether the DNS and NNS speakers of L2 Turkish display sensitivity to questioned binding facts in Turkish or not.

Considering this, the task includes 16 questions with 4 test items in each condition. In the rest of this part, test items for each condition are described.

3.2.1.1. The Test Items of the OPCT

3.2.1.1.1. Condition 1 for the OPCT

In the condition 1 (Con1) there are 4 test items that question the co-indexation between a null embedded subject and a quantified/wh-word antecedent[14]. As conditioned by the OPC, the null embedded subject might be bound to an antecedent (the same person in the matrix clause) or have a disjoint reading (another person in the discourse). Therefore, the Con1 questions whether the interlanguage of the DNS and NNS speakers of L2 Turkish display sensitivity to two interpretations. In other words, it questions whether the binding properties of null embedded subject in the context of quantified/wh-word antecedent have been acquired or not in the given contextualized sentences. With respect to this, as for the 2 test items, the antecedent of embedded subject is contextualized to be bound whereas for the other 2 test items, the referent of embedded subject is conditioned to be a third party in the discourse. Four antecedents include three different-type quantifiers; universal quantifier *herkes (everybody)*, quantified determiner *her (each)*, negative quantified pronominal *hiçbiri (nobody)*, and one wh-word, *kim (who)*. Below are the test items of the two interpretations of the Con1:

As context determines each interpretation, 2 questions require that the null embedded subject to be bound to the quantified/wh-word antecedent. Test items 9 and 16 form the bound interpretation where the former is described below:

[14] Test items of this task can be seen in the Appendix2.

Test Item 9

Bağlam (The context): Ebru ile Kayhan dönem sonunu kutlamak için piknik yapmak istedi ve bunu sınıfla da paylaştı. Daha sonra tüm sınıf piknik yapmaya karar verdi ve öğretmenlerini de pikniğe çağırdılar. Öğretmen piknik için ne getirileceğini tüm sınıfa sordu. (Ebru and Kayhan decided to have a picnic to celebrate the end of the semester and shared this with the class. Afterwards, the whole class decided to have a picnic and invited the teacher as well. The teacher asked the whole class what to bring for the picnic).

Tümce (Target sentence): **Herkes piknik için birşey getireceğini öğretmene söyledi.** (Everybody told the teacher *pro* would bring something for the picnic).

Yukarıdaki tümceye göre kim piknik için bir şey getirecek olabilir? (Who do you think might bring something for the picnic?)

a) Sınıftaki herkes (Everybody in the class)

b) Herkes dışında başka birileri (Somebody else other than everybody)

Having established the given background information in the context, we can understand from the target sentence that everyone in the class tells the teacher that they will all bring something for the picnic. Therefore, the answer should be *a) Sınıftaki herkes (Everybody in the class)*. In that case, the null embedded subject, *pro,* becomes coindexed with the quantified antecedent, hence the potential antecedents in the discourse – *Ebru* and *Kayhan* – cannot be the reference for the null embedded subject. To make it clear, the co-reference interpretation between the null embedded subject and the main clause subject for bound interpretation can be displayed below:

> Herkes$_i$ [*pro*$_i$ piknik için birşey getireceğini öğretmene] söyledi. (Everybody$_i$ told the teacher [that *pro*$_i$ would bring something for the picnic]).

The latter two questions of the Con1 require the null embedded subject to have a free variable reading, in which the referent of the embedded subject is disjoint, referring to another person in the discourse. Test items 1 and 5 assess this interpretation. As an example, test item 1 is illustrated below:

Test Item 1

Bağlam (The context): Kemal Sunal birçok sinema oyuncusunu etkilemiş önemli bir kişidir. Ölümünden sonra bile oynadığı filmler herkes tarafından beğeniyle izlenmektedir. Bu konuyla ilgili, yerel bir gazete popüler sinema oyuncularıyla bir röportaj yaptı. (Kemal Sunal is an important figure who has influenced

many cinema artists. Even after his death, his films are being watched with great pleasure. With respect to this topic, a local paper had an interview with the popular cinema artists).

Tümce (Target sentence): **Her oyuncu tüm zamanların en iyi oyuncusu olduğunu belirtti.** (Every artist stated that *pro* is the greatest artist of all times).

Yukarıdaki tümceye göre kim tüm zamanların en iyi oyuncusu olabilir? (Who do you think might be the greatest artist of all times?)

a) Her oyuncu (Every artist)

b) Her oyuncu dışında başka biri (Someone other than every artist)

After reading the context, it becomes obvious in the target sentence that every artist is reflecting their view on *Kemal Sunal* as the greatest artist ever. It cannot be inferred from the context that every artist being interviewed claim that they are the greatest artists, rather than *Kemal Sunal*. Therefore, the answer should be *b) Her oyuncu dışında başka biri (Someone other than every artist)* which refers to *Kemal Sunal*. In that case, the null embedded subject has a free variable reading, having a disjoint interpretation:

> Her oyuncu$_i$ [*pro*$_j$ tüm zamanların en iyi oyuncusu olduğunu] belirtti. (Every artist$_i$ stated [that *pro*$_j$ is the greatest artist of all times]).

3.2.1.1.2. Condition 2 for the OPCT

In the condition 2 (Con2) there are 4 test items that ask the co-reference interpretation between the overt embedded subject *o (s/he)* and quantified/wh-word antecedent. As in the case of the Con1, the antecedents include three types of quantifiers; universal quantifier *herkes (everybody)*, quantified determiner *her (every)*; negative quantifier *kimse (nobody)*; and one wh-word *kim (who)*. As a universal constraint of the OPC, the overt embedded pronoun *o (s/he)*, cannot be bound to a quantified/wh antecedent. Therefore, all of the test items require the overt embedded subject to have a disjoint reading even if the context forces the readers to select bound reading. Regarding this, test items 3, 8, 10, and 13 form this condition. As an example, test item 3 is explained below:

Test Item 3

Bağlam (The context): Dün çalışanlarla yapılması planlanan toplantı yönetim tarafından iptal edildi. Yöneticiler bu durumun kendilerini zor duruma soktuğunu biliyor. (The meeting with the employees that

was supposed to be held yesterday was called off by the management. Managers know that this situation has put them in a difficult position).

Tümce (Target sentence): **Herkes onların haksız olduğunu düşünüyor.** (Everybody thinks that they are unfair).

Yukarıdaki tümceye göre kim haksız olabilir? (Who do you think might be unfair?)

a) Herkesle aynı kişiler (The same people with everybody)

b) Herkes dışında başka birileri (Someone other than everybody)

When the target sentence is read within a context, the overt embedded pronoun *o (s/he)* necessarily refers to a third party in the discourse, having a disjoint interpretation, even though there are possible references that might refer to *herkes (everybody)* in the sentence. Actually, contextual information is not necessary to determine the antecedent of the embedded subject. Rather, the only aim of creating contexts is to present background information to make the participants familiarize with the referents of the subjects in the target sentences. Accordingly, the answer for this test item will be *b) Herkes dışında başka birileri (Someone other than everybody)* since the embedded subject cannot be co-indexed with the quantified antecedent:

Herkes$_i$ [onların$_j$ haksız olduğunu] düşünüyor. (Everybody$_i$ [thinks that they$_j$ are unfair]).

3.2.1.1.3. Condition 3 for the OPCT

The condition 3 (Con3) is structured by null embedded subject in the context of a referential/lexical antecedent. As in the case of the Con1, the target sentences representing this pattern involve two interpretations; either null embedded subject is bound to a DP antecedent or it has a disjoint reading. Regarding this, 4 items are designed. Depending on the contextual information, as for the two test items, null embedded subject is co-indexed with a referential DP antecedent and as for the other two test items, it has a free variable interpretation. As predicted by the OPC, the participants are expected to interpret the null embedded subject either the same person as in the matrix clause or another person in the discourse. The test items with two interpretations are explained below:

Test items 4 and 7 require the null embedded subject to be co-referential with the DP antecedent. The former one is exemplified below:

Test Item 4

Bağlam (The context): Mert ile Hasan kafede oturuyordu. Daha sonra yanına Ali ve İstanbul'da yaşayan kız arkadaşı Ayşe geldi ve birlikte sohbet ettiler. Ali çok mutluydu. Mert ile Hasan nedenini sordu. Ali İstanbul'daki iş için mülakata çağrıldığını söyledi. (Mert and Hasan were sitting in a cafe. Then, Ali and his girlfriend Ayşe living in İstanbul just turned up and all of them had a chat. Ali seems quite happy. Mert and Hasan asked why. Ali told them that he had been called for an interview for the job in İstanbul).

Tümce (Target sentence): **Ali yakında İstanbul'a gideceğini söyledi.** (Ali told that *pro* would go to Istanbul soon).

Yukarıdaki tümceye göre kim yakında İstanbul'a gidecek olabilir? (Who do you think might go to Istanbul soon?)

a) Ali

b) Ali dışında başka biri (Someone other than Ali)

When the given sentence is read in relation to context, the possible antecedents of the null embedded subject stand out as *Mert*, *Hasan*, *Ali* and *Ayşe*. However, the context presents that *Ali* is leaving for *İstanbul* as soon as he has been called for an interview there. Therefore, with this context in mind, the antecedent of the embedded subject necessarily becomes the referential matrix subject, *Ali*. This can be displayed below:

> Ali$_i$ [*pro*$_i$ yakında İstanbul'a gideceğini] söyledi. (Ali$_i$ told [that *pro*$_i$ would go to Istanbul soon]).

Unlike the bound interpretation, disjoint interpretation specifies that the antecedent of null embedded subject is a third party in the discourse. Test items 11 and 14 are employed to fulfil this condition, where the test item 11 is described below:

Test Item 11

Bağlam (The context): Mary ve John Türkçe öğrenmek için Türkiye'ye geldiler. Aileleri daha önce Türkiye'de yaşadıkları için Türkçe konuşabiliyor ve onların da Türkçeyi öğrenmelerini istiyor. (In order to learn Turkish Mary and John settled in Turkey. Since their parents have lived in Turkey before they can speak Turkish and want them to learn Turkish as well).

Tümce (Target sentence): **Aileler Türkçeyi çok çabuk öğreneceklerini biliyor.** (Families know that *pro* will learn Turkish very fast).

Yukarıdaki tümceye göre kim Türkçeyi çok çabuk öğrenecek olabilir? (Who do you think will learn Turkish very fast?)

a) Aileler (Families)

b) Aileler dışında başka birileri (Someone other than families)

The context reveals that the families of *Mary* and *John* have already been in Turkey before and they can speak Turkish. Therefore, they also want their children to learn Turkish. With respect to this, the families know that their children (rather than themselves) will learn Turkish very fast, hence the answer should be *b) Aileler dışına başka birileri (Someone other than families)* who are introduced in the context as *Mary* and *John.* So, it can be argued that the null embedded subject has a disjoint interpretation:

> Aileler*i* [*proj* Türkçeyi çok çabuk öğreneceklerini] biliyor. (Families*i* know [that *proj* will learn Turkish very fast]).

3.2.1.1.4. Condition 4 for the OPCT

As for the last condition, the condition 4 (Con4) is represented by the overt embedded subject *o (s/he)*, and a referential DP antecedent in the matrix clause. As discussed before, unlike what is claimed in Turkish (see 2.5.1.4. above for further discussion) the overt embedded subject *(s/he)* can be bound to a referential DP in Turkish to signal contrastive topic in topic continuity contexts. When it has a disjoint reading, the overt subject has the function of contrastive focus in topic shift contexts, referring to another person in the discourse rather than the subject of the matrix clause[15]. With respect to this, the aim of giving context is to force the participants to select either of the two interpretations to understand whether they are sensitive to binding properties of overt subject in the context of a lexical NP. Following this, two interpretations are explained below with the test items:

As for the bound interpretation, the context creates a contrastive topic environment in which the overt embedded subject necessarily becomes co-indexed with a referential DP antecedent. Test

[15] Note that without a context, native speakers would interpret the overt embedded subject to have a disjoint reading in Turkish (see Çınar and Çakır for further discussions.

items 2 and 12 are structured to evaluate this constraint. Test item 2 is given below to describe this pattern:

Test Item 2

Bağlam (The context): Arkadaşım Ebru Türkçe dilbilgisi konusunda çok iyidir. Dün Türkçe dilbilgisi ödevimle ilgili anlamadığım birkaç yer vardı. Tesadüfen, bu sabah Ebru'yu kütüphanede gördüm. Ebru'ya birinin bu konuda bana yardımcı olup olamayacağını sordum. (My friend Ebru is quite good at Turkish grammar. Yesterday, there were some points that I did not understand about my homework on Turkish grammar. Luckily, I have seen Ebru at the library this morning. I asked Ebru whether someone can help me with this topic or not).

Tümce (Target sentence): **Ebru onun Türkçe dilbilgisi ile ilgili herşeyi bildiğini ve endişelenmemem gerektiğini söyledi.** (Ebru told that s/he knows everything about Turkish grammar and I don't need to be worried).

Yukarıdaki tümceye göre kim Türkçe'nin dilbilgisi ile ilgili herşeyi biliyor olabilir? (Who do you think might know everything about Turkish grammar?)

a) Ebru

b) Ebru dışında başka biri (Someone other than Ebru)

The context clarifies that *the narrator* needs help with his/her Turkish grammar assignment. Then s/he happens to see *Ebru*, who is excellent in her knowledge of Turkish grammar. *The narrator* asks her whether someone can help him/her with this topic or not. Upon reading this context, it becomes clear that *Ebru* is the one who is willing to help *the narrator*. The reason is that *Ebru* contrasts herself with the ones who might be able to help *the narrator* by emphasizing that she already knows about Turkish grammar and there is no need to ask anyone, hence creating contrastive topic environment. Therefore, the correct answer should be *a) Ebru*. Considering this, the overt embedded pronoun *o (she)* becomes co-indexed with the referential DP:

> Ebru$_i$ [onun$_i$ Türkçe dilbilgisi ile ilgili herşeyi bildiğini ve endişelenmemem gerektiğini] söyledi. (Ebru$_i$ told [that she$_i$ knows everything about Turkish grammar and that I don't need to be worried]).

Unlike the former type, the overt embedded subject *o (s/he)* has a disjoint reading in which the subject of the matrix clause is contrasted with a third party in the discourse by signaling contrastive focus. Test items 6 and 15 are based on this condition. Test item 6 is described below to have a better understanding of this constraint:

Test Item 6

Bağlam (The context): Emre geç saate kadar ders çalıştığı için bu sabah uyanamadı. Bu yüzden oda arkadaşı Ali onu uyandırmak istemedi. (Since he studied late Emre could not wake up this morning. Therefore, his roommate Ali did not want to wake him up).

Tümce (Target sentence): Ali onun yorgun olduğunu düşünüyor. (Ali thinks that s/he is tired).

Yukarıdaki tümceye göre kim yorgun olabilir? (Who do you think might be tired?)

a) Ali

b) Ali dışında başka biri (Someone other than Ali)

When the context is taken into account, the possible antecedents of the overt embedded subject become clear, either as *Emre* or *Ali*. When the target sentence is read in relation to this, it becomes clear that *Ali* thinks that Emre is tired, not himself, where *Ali* contrasts himself with *Emre*. Therefore, the correct answer should be *b) Ali dışında başka biri (Someone other than Ali),* who is *Emre.* In that case*,* the overt embedded subject has a disjoint or free variable reading:

Ali$_i$ [onun$_j$ yorgun olduğunu] düşünüyor. (Ali$_i$ thinks [that he$_j$ is tired]).

3.2.1.2. Coding of responses for the OPCT

Each correct answer is scored for 2 points, so the maximum point for a learner to get from the OPCT is 24. If a participant has marked both options, in which only one answer is true, 1 point is given. However, if two options are selected for the Con2, the answer is evaluated as wrong, since with or without a context, the co-indexation of overt embedded subject to a quantified/wh-word antecedent is impermissible in any case.

3.2.2. The Contextualized Grammaticality Judgement Task (CGJT)

This task, which has been adapted from Rothman (2007; 2009) aims to evaluate the syntax-discourse interface, focusing on how topic continuity-topic shift realization is acquired by the Turkish L2 speakers. Accordingly, the results of this task will reveal whether the Full Transfer / Full Access Hypothesis or the Interface Hypothesis hold in L2 Turkish. The task is also framed to understand which group or proficiency level of L2 speakers is more successful in their interprerations on the the discursive constraints. The findings fetched from this task will help to

understand whether there are any constrains for the L2 Turkish speakers to acquire topic continuity and topic shift constructions or not.

As discussed before, it can be argued that null subjects are allowed in topic continuity contexts. However, overt subjects have to be used when a new referent is introduced or it has a contrastive function in the discourse, rendering the use of overt subject necessary. Considering this, L2 Turkish speakers are expected to display sensitivity to these constraints in order to assert that they have completely attained the constraints on the use of null and overt subject distribution at the syntax-discourse interface.

In the light of these facts, participants are asked to judge whether the contextualized sentences they read is pragmatically odd or not. The aim of giving contexts is to provide background information with the participants so that they can interpret the referents of subjects in the sentences they are given. Hence, they are told that the target sentences they read do not have to be equivalent with the sentences introduced in the context. They are only asked to read the target sentence and judge whether the sentence is pragmatically acceptable or unacceptable by selecting either of the two options: Acceptable or Not acceptable. In order to understand the reason why they have found a sentence unacceptable, they are further asked to correct the sentence. Overall, the CGJT is framed by 4 conditions which are given in Table 4 below. The task includes 12 questions with 3 questions for each condition.

Table 4

The contextualized grammaticality judgment task

Conditions	**Contexts**	**Subject types in the sentences**	**Target Answers**
Con1	Context supports null subject	Null	Acceptable
Con2	Context supports overt subject	Overt	Acceptable
Con3	Context does not support null subject	Null	Unacceptable
Con4	Context does not support overt subject	Overt	Unacceptable

The pragmatic constraints on the use of null and overt subjects are not violated in the first two conditions where either null or overt subject is appropriately used depending on the contextual information. However, the latter two conditions violate the discursive constraints on the use of

null versus overt subject distinction in Turkish. Following, each condition is described with the test items:

3.2.2.1. The Test Items of the CGJT

3.2.2.1.1. Condition 1 for the CGJT

In the Con1, the topic of the sentence is already established in the target sentence. Therefore, it is more appropriate to use null subject, which is not pragmatically odd. The test items 1, 8 and 11 are designed to test this. Test item 1 is described below:

Test Item 1

Bağlam (The context): Geçen sene kız kardeşim dilbilimde doktora yapmak için yurtdışına gitti. Ben ve ailem onun için çok mutlu olduk ama onunla çok az konuşabiliyoruz. Çünkü sürekli ders çalışıyor. (Last year my sister went abroad to do a PhD in linguistics. My family and I were very happy for her but we can barely talk to her. Because she is always studying).

Tümce (Target sentence): **Kız kardeşim bir süredir yurtdışında ve sürekli ders çalışıyor.** (My sister is abroad for a while and she is always studying).

a) Uygun (Acceptable)

b) Uygun Değil (Not acceptable)

The topic of the sentence is the sister of *the narrator*, who is the subject of the first sentence *(kız kardeşim / my sister)*. When she is referred again following the conjunction *ve (and)*, null subject needs to be employed; otherwise it would be pragmatically odd to use an overt subject to refer to her again. That's why, participants are expected to mark the option *a) Uygun (Acceptable)*.

3.2.2.1.2. Condition 2 for the CGJT

The Con2 is characterized by a referent change in the target sentence, for which an overt subject needs to be employed in topic shift contexts, rendering the use of an overt subject required. Test items 3, 5 and 9 fall into this category. Test item 3 is described below:

Test Item 3

Bağlam (The context): Dün arkadaşlarımla sinemaya gittik. Ben aksiyon filmlerinden hoşlandığım için arkadaşlarıma aksiyon filmine gidelim mi diye sordum. Ama onlar komedi filmine gitmeyi tercih ettiler. (Yesterday, my friends and I went to the cinema. As I like action movies I asked my friends to watch an action movie. However, they preferred to watch a movie based on comics).

Tümce (Target sentence): **Ben aksiyon filmine gidelim mi diye sordum ama onlar komedi filmine gitmeyi tercih ettiler.** (I asked my friends to watch an action movie but they preferred to watch a movie based on comics).

a) Uygun (Acceptable)

b) Uygun Değil (Not acceptable)

The first part of the compound sentence makes it clear that the topic of the sentence is *ben (I)*. However, the topic changes following the conjunction *ama* (*but)*, and the subject of the second clause, *onlar (they)*, is appropriately marked overtly. Therefore, participants are expected to select the option *a) Uygun (Acceptable)*.

3.2.2.1.3. Condition 3 for the CGJT

The Con3 signals a context in which there is a topic shift. Therefore, the shift in topic has to be marked with an overt subject in the target sentence. However, in place of an overt subject, pragmatically unacceptable null subject has been inappropriately used. Given this, it represents the unacceptable topic shift realization which signals either underuse of overt subject or overuse of null subject. Therefore, participants are first expected to choose the unacceptable option and then correct it by inserting an overt subject within a place where null subject is present. Test items 4, 6, and 10 are grouped in this type. Test item 4 is illustrated below:

Test Item 4

Bağlam (The context): Ahmet ile ben her zaman Ali'nin ödevlerini yapmasına yardımcı oluruz. Dün Ali yine bizden yardım istedi ancak Ahmet Ali'ye çok işi olduğunu söyledi. Bu yüzden de Ahmet benden yardım istedi. (Ahmet and I always help Ali to do his homework. Yesterday, Ali asked us for help again but Ahmet told Ali that he had lots of things to do. Therefore, Ahmet asked for my help).

Tümce (Target sentence): **Ahmet'in işi olduğu için yapmamı istiyor.** (*pro* wants (me) to do it since Ahmet is busy).

a) Uygun (Acceptable)

b) Uygun Değil (Not acceptable)

The above target sentence is pragmatically odd since new information in the sentence is not marked overtly. The topic is established with the referential DP, *Ahmet*. However, as the target sentence implies in relation to the context, *Ahmet* wants *the narrator (ben/I)* to help *Ali*. Therefore, this shift in topic needs to be marked overtly and the correct answer should be *b) Uygun Değil*. (Unacceptable). Regarding this, the participants are expected to correct the sentence by inserting an overt subject to the embedded clause, which might be *benim (I-GEN*) in this case:

Ahmet'in işi olduğu için *benim* yapmamı istiyor.

3.2.2.1.4. Condition 4 for the CGJT

In the Con4, the use of an overt subject renders the sentence pragmatically anomalous. Since the topic of the sentence does not alter, marking the same referent overt makes the sentence pragmatically unacceptable. Therefore, the Con4 represents the unacceptable topic construction. Considering this, it can be argued that either null subject is underused or overt subject is overused. Test items 2, 7 and 12 are employed to evaluate this constraint. Test item 2 is given as an example:

Test Item 2

Bağlam (The context): Yurtdışı gezisi için arkadaşlarımla havaalanında saat 2'de buluşmaya karar verdik. Onlar tam 2'de gelmişti. Ancak ben trafikten dolayı havaalanına 2.30'da gidebildim ve uçağı son anda yakaladım. (For an overseas trip my friends and I decided to meet at the airport at 2 o'clock. They arrived at 2 o'clock sharp. However, because of the traffic congestion I was able to get to the airport at 2.30 and I barely caught the flight).

Tümce (Target sentence): **Ben havaalanına çok geç gitmeme rağmen ben uçağı yakalamayı başardım.** (Although I get to the airport too late I barely caught the flight).

a) Uygun (Acceptable)

b) Uygun Değil (Not acceptable)

The topic of the target sentence is *the narrator (ben/I)*. Even though s/he is late to the airport, s/he barely catches the flight. Since the same referent, *ben/I* is referred again in the matrix clause, there is no need to mark it overtly again. Therefore, the choice should be *b) Uygun Değil* (Unacceptable), and in relation to this, participants are expected to correct the sentence by omitting the second overt subject, *ben (I)*. Alternatively, the first use of the overt subject, *(ben/I)*, can be omitted as well on the grounds that the topic is established in the context:

Ben havaalanına çok geç gitmeme rağmen ~~ben~~ uçağı yakalamayı başardım.

~~Ben~~ havaalanına çok geç gitmeme rağmen ~~ben~~ uçağı yakalamayı başardım.

3.2.2.2. Coding of responses for the CGJT

There are four conditions in this task. Each condition is represented with 3 questions, with each correct answer being scored for 2 points, corresponding to 24 in total.

As for the Con1 and Con2 where the target answer is expected to be acceptable, there are two types of correct answers: (i) those which are acceptable (when learners marked the acceptable option correctly, they got 2 points), (ii) those which are unacceptable (when learners marked the unacceptable option but corrected another linguistic unit, which does not involve the use of subjects and which does affect the grammaticality of the sentence they got 2 points).

As for the Con3 and Con4, where the target answer is expected to be unacceptable, there are two types of correct answers: (i) those which are unacceptable (when learners marked the unacceptable option and corrected the use of subject appropriately they got 2 points) and (ii) those which are unacceptable (when learners marked the unacceptable option but did not correct their answer, they got 1 point).

3.2.3. The Question-Answer Task (QAT)

Questions give relevant contexts of the particular information state (Vallduvi & Vilkuna, 1998). Accordingly, the Question-Answer task (QAT), which has been adapted from (Perez-Leroux & Glass, 1999) is used in this study in order to understand whether the L2 Turkish speakers can use topic continuity-topic shift distinction appropriately in the complex embedded and simple / root clause subjects as answer to simple or complex wh-questions. In other words, the test evaluates the interpretations of L2 speakers on the given discursive constraints in the same way as the CGJT does but in different contexts. By doing so, this task is also framed to understand whether the position of subjects either in the embedded or matrix clause constrain the acquisition of topic continuity and topic shift constructions. Therefore, questions are used to control this realization. With respect to this, the QAT consists of two parts:

The first part, which is represented in the test as A, involves two different complex sentences with wh-questions:

The first type is framed with subject wh-question, corresponding to the Con1 in the task. It asks about the embedded subject where the matrix subject is talking about the embedded subject. The second type is characterized with object wh-question, corresponding to the Con2. It asks about the embedded object where the embedded subject is co-referential with the matrix subject. Taking these points into account, it can be argued that the answer to subject wh-question must be realized by an overt subject as the embedded subject carries new information in the sentence. On the contrary, the answer to object wh-question must be realized by a null subject since the topic marked in the embedded subject does not change; rather, it is the embedded object which the matrix subject is talking about. With respect to this, in order to control two possible interpretations, each question is accompanied by a picture so that the participants disambiguate the two possible interpretations of the embedded subject. In other words, as discussed before, pronominal *o (s/he)* in embedded clause has two interpretations. Without a picture which would create the context, answers to these questions would be ambiguous, having either a bound or disjoint reading. Therefore, pictures are used to control the interpretation of the embedded subject. In this regard, pictures are given as pairs describing the same event, where the referents of subjects in the target sentence can be seen in the pictures. Therefore, of the two-related pictures, one picture depicts the embedded subject and the other one depicts the embedded object. This means that a picture depicting subject wh-question has an equivalent picture corresponding to object wh-question. Accordingly, subjects are asked to indicate whether the answers to the questions are acceptable or not depending on the given picture. Then, they are further instructed to correct an unacceptable answer as in the case of the CGJT.

The second part of the study, which is represented as B in the test, involves simple / root sentences with simple wh-questions, which is further grouped into two types of questions:

The first type asks about the subject of the sentence, corresponding to the Con3 whereas the other type asks about the object of the sentence, corresponding to the Con4. The answer to subject wh-question, which signals topic shift, has to be marked overtly whereas the answer to object wh-question has to be marked null as the topic does not change. Considering this, subjects are again instructed to read question-answer pairs and judge whether the answers given to questions are acceptable or not. Further, they are asked to correct the answers they think unacceptable. Since

simple clauses do not pose ambiguous interpretations, pictures are not used for this task. Accordingly, the conditions for both types of questions can be given in Table 5:

Table 5

The question-answer task

Sentence Types	**Conditions**	**Question types / Contexts**	**Target answer**
Complex sentence with wh- questions	Con 1	Embedded subject is targeted	Overt subject
	Con 2	Embedded object is targeted	Null subject
Simple sentence with wh-questions	Con 3	Subject is targeted	Overt subject
	Con 4	Object is targeted	Null subject

Each condition is represented with 4 questions and for each condition 2 answers are acceptable and 2 answers are unacceptable which needs to be corrected (in total there are 8 acceptable answers and 8 unacceptable answers). Following this, the test items of each condition is described below:

3.2.3.1. The Test Items of the QAT

3.2.3.1.1. Condition 1 for the QAT

The Con1 is represented with 4 complex wh-question-answer pairs which are depicted with 4 pictures (two questions are designed to be acceptable and the other two are unacceptable). It asks about the embedded subject, where the questions are formed with *kimin (who-GEN)* wh-phrases. Therefore, an overt embedded subject must be used in the answer. Regarding this, the test items 4 and 8 have acceptable answers whereas the test items 1 and 5 have unacceptable answers. The test items 4 and 1 which represent acceptable and unacceptable answers respectively are illustrated below:

Test Item 4

Soru: **Sinem kimin alışveriş yaptığını gördü?**

(Question: Who did Sinem see doing shopping?)

Cevap: **Onun alışveriş yaptığını gördü**.

(Answer: *Pro* saw him doing shopping).

a) Uygun (Acceptable)

b) Uygun Değil (Unacceptable)

As illustrated by the picture, *Sinem* sees someone doing shopping. Since the question is asking about the person whom *Sinem* sees shopping, the answer must include an overt subject depicting the person in the picture. In other words, the overt subject in the answer represents new information in the sentence. Therefore, the answer should be *a) Uygun (Acceptable)* as the embedded subject position must be filled with a subject.

Test Item 1

Soru**: Ayşe kimin çiçekleri suladığını gördü?**

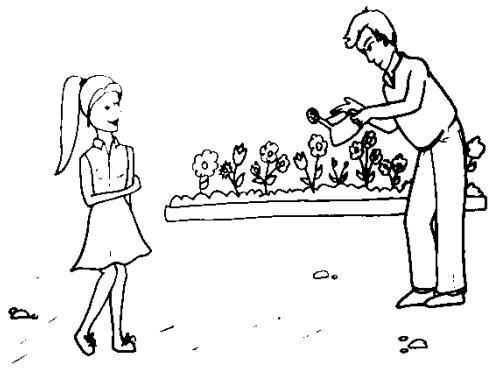
(Question: Who did Ayşe see watering the flowers?)

Cevap: **Ayşe suladığını gördü.**

(Answer: Ayşe saw *pro* watering the flowers).

a) Uygun (Acceptable)

b) Uygun Değil (Not acceptable)



The picture illustrates *Ayşe* and someone who is watering the flowers and the question is asking about the person who is watering the flowers. At this point, test item 1 represents the opposite case where the embedded subject position is left blank, which renders the sentence unacceptable. Therefore, the target answer must include an overt subject. Accordingly, participants are expected to insert an overt embedded subject in the answer in order to correct the unacceptable option.

3.2.3.1.2. Condition 2 for the QAT

Unlike the Con1, the 4 depicted-questions of the Con2 ask about the embedded object, therefore the questions are formed with *ne (what)* wh-phrases. In this case, the embedded object needs to be overtly marked whereas the embedded subject needs to be realized null since the referent of the embedded subject, which is already established in the discourse, is not asked. With regard to this, the test items 2 and 6 which include null embedded subjects in the answers are acceptable

whereas the test items 3 and 7 which include overt embedded subjects are unacceptable. The test items 2 and 3 which represent acceptable and unacceptable answers respectively are described below:

Test Item 2

Soru: **Ayşe bahçede ne yaptığını söyledi?**

(Question: What did Ayşe say doing in the garden?)

Cevap: **Çiçek suladığını söyledi.**

(Answer: *Pro* said that *pro* was watering the flowers).

a) Uygun (Acceptable)

b) Uygun Değil (Unacceptable)

The picture represents *Ayşe* who is watering the flowers and the question asks about what *Ayşe* is doing in the garden. With regard to this, it is understood from the question-answer pair that the topic is already established in the question, which is *Ayşe*, and the new information is the embedded object which is realized by the interrogative pronoun *ne* (*what)*. In that case, the embedded clause needs to be marked with a null subject. However, the embedded object, *çiçek sulama (watering flowers)*, needs to be marked overtly. Therefore, participants are expected to mark *a) Uygun (Acceptable)* as the answer fulfils the condition regulating this constraint.

Test Item 3

Soru: **Sinem ne yaptığını söyledi?**

(Question: What did Sinem say doing?)

Cevap: **Onun alışveriş yaptığını söyledi.**

(Answer: *Pro* said she was doing shopping).

a) Uygun (Acceptable)

b) Uygun Değil (Not acceptable)

The answer to this question is unacceptable as the embedded subject *o (she)* is interpreted as referring to a third party in the discourse. However, the picture depicts merely *Sinem* who is the

topic of the question and the answer to this question cannot include an overt subject[16]. Therefore, it can be argued that the answer does not truly represent the picture, for which the target answer should be *b) Uygun Değil (Unacceptable).* Accordingly, the participants are expected to correct the sentence by omitting the overt embedded subject.

3.2.3.1.3. Condition 3 for the QAT

As for the second part of the QAT, which is represented by the B section in the questionnaire, simple / root sentences with wh-questions which ask about either the subject or the object of the clause are employed. Regarding this, the Con3 asks about the subject, which is asked with *kim (who)* wh-phrases. This part is represented with 4 questions (two of them are designed to be acceptable and the other two are unacceptable). As for the test items, 2 and 7 have acceptable answers whereas 3 and 6 have unacceptable answers. The test items 2 and 3 which represent acceptable and unacceptable answers respectively are described:

Test Item 2

Soru: **Alışverişe kim gidecek?**

(Question: Who will go shopping?)

Cevap: **Ben gideceğim.**

(Answer: I will go).

a) Uygun (Acceptable)

b) Uygun Değil (Unacceptable)

The question asks about the subject of the clause as new information which is realized by the interrogative pronoun *kim(who)*. Therefore, the answer should include an overt subject since it signals topic shift; otherwise the sentence would be pragmatically anomalous. Accordingly, the correct answer should be *a) Uygun (Acceptable).*

Test Item 3

Soru: **Cemi kim sinirlendirdi?**

(Question: Who made Cem angry?)

[16] Since there is no one in the context as represented in the picture to contrast with the subject of the matrix clause, *o* cannot have a disjoint interpretation.

Cevap: **Sinirlendirdim.**

(Answer: *Pro* made angry).

a) Uygun (Acceptable)

b) Uygun Değil (Unacceptable)

Contrary to the previous test item, the answer to the question asking about the embedded subject does not include an overt subject inappropriately. Since the subject in the answer carries the new information, it cannot be left null because the referent of subject has not been established in the discourse. Therefore, the participants are expected to mark *b) Uygun Değil* (*Unacceptable*) by inserting the overt pronoun *ben (I)* in the answer in order to correct the answer.

3.2.3.1.4. Condition 4 for the QAT

The second part of the section B is based on 4 simple sentences with wh-questions which ask about the object. The embedded objects are asked with *kime (who-DAT)* and *ne (what)* wh-phrases. As the referent of the subject is previously established in the discourse, it is expected that the answers do not include overt subjects due to topic continuity. Rather, only the object of the target sentence needs to be overtly marked as it carries the carries the new information. With respect to this, 2 of the 4 answers are designed to be as acceptable answers where the subject position is left null. The other 2 answers are represented as unacceptable answers where the subject is inappropriately marked overtly. The test Items 1 and 5 have acceptable answers whereas 4 and 8 have unacceptable answers. The test items 1 and 4 are described below as representative of the both types:

Test Item 1

Soru: **Cem kime sinirlendi?**

(Question: Whom did Cem angry with?)

Cevap: **Ona sinirlendi.**

(Answer: *Pro* was angry with him/her).

a) Uygun (Acceptable)

b) Uygun Değil (Not acceptable)

In the above question-answer pair, the topic is established with the subject in the question (*Cem*) whereas the interrogative pronoun, *kime (whom),* signals topic shift. Considering this, the answer to this question requires a null subject, since the subject (*Cem*) has already been introduced in the question. Therefore, the answer should be *a) Uygun (Acceptable)*.

Test Item 4

Soru: **Hediyeyi kime alıyor?**

(Question: Whom does he get the present for?)

Cevap: **O kız arkadaşına alıyor.**

(Answer: He gets the present for his girlfriend).

a) Uygun (Acceptable)

b) Uygun Değil (Unacceptable)

As the question asks about the object, as realized by the object interrogative pronoun *kime* (*whom)*, the subject should not be overtly marked to obey the discursive constraints on the null vs. overt subject distribution. The reason is that the referent of the subject has already been introduced in the question and it is more appropriate not to use an overt subject. Regarding this, the answer should be *b) Uygun Değil (Unacceptable)* and the participants are excepted to correct the sentence by omitting the overt pronoun *o (s/he)* in the target answer.

3.2.3.2. Coding of responses for the QAT

For the QAT, each correct answer is scored for 2 points. The maximum point for a learner to get from this task is 16. As in the case of the CGJT, there are four types of correct answers in total: (i) those which are acceptable (when learners marked the acceptable option correctly, they got 2 points), (ii) those which are unacceptable (when learners marked the unacceptable option and corrected the target sentence appropriately, they got 2 points) (iii) those which are unacceptable (when learners marked the unacceptable option correctly but did not correct their answer, they got 1 point), and (iv) those which are unacceptable (when learners marked the unacceptable option but corrected another linguistic unit, which does not involve the use of subjects and which does influence the grammaticality of the sentence they got 2 points).

3.3. DATA COLLECTION PROCEDURE

Permission to conduct this study was taken from Hacettepe University Ethics Commission, dated March 22, 2016 and following the requirements of the Commission, voluntary participation form, which states the general overview of the study, was given before the study and regarding this, written consent was taken from all learners who wanted to participate in the study.

3.3.1. Pilot Study

Before the main study, pilot study was carried out to assess the validity and the reliability of the test items in the tasks. Pilot study included the three tasks as well.

Small number of participants were included into the study. As for the participants representing the DNS group, there were 10 advanced speakers (6 Korean; 4 Japanese) and 5 intermediate speakers (4 Korean; 1 Japanese). Considering the participants representing the NNS group, there were 7 advanced (4 English; 3 German) and 3 intermediate speakers (1 English; 3 German). Additionally, 5 native Turkish speakers formed the control group. Due to few number of participants, the pilot study was drawn on to correct and revise the test items, rather than discussing the results for the tasks - though the results of the tasks more or less anticipated the findings in the main study.

After the study was conducted, both the control group and the L2 speakers were asked to give comments on the questions to understand whether there were any questions or explanations that they did not understand. Accordingly, relevant revisions were made on the test items of the OPCT and the CGJT depending on these comments and the results of the tasks.

As for the OPCT, the target questions asked whether the matrix subject or somebody else did the given action. Therefore, these questions necessarily included the options: *A) the same person with the matrix subject B) another person who is not the same with matrix subject*. However, it seemed that some of the participants had difficulty in understanding the two options (marked bold in the answer) which included quantified/wh-word antecedent. To illustrate:

The context: Can ile Ayşe yaz tatilinde İngiltere'ye gitmek istiyordu. O sırada İngiltere vizesi almaya çalışan arkadaşları onlara vize almanın zorluklarını anlattı ve vizenin gerekli olmadığı bir ülkeye

gitmelerini önerdi. (Can ve Ayşe wanted to go to the UK for summer. Meanwhile, their friends who were trying to receive UK visa told them about the difficulties of getting visa and suggest them to go to another country where visa is not required)

Target sentence: Kimse onların İngiltere'ye gidebileceklerine inanmıyor. (No one believes that they will be able to go to the UK).

Question: Yukarıdaki tümceye göre kim İngiltere'ye gidebilecek olabilir? (Who do you think will be able to go to the UK?)

A) Kimse ile aynı kişiler (The same person with nobody)

B) Kimse dışında başka birileri (Somebody else other than nobody)

Therefore, for most of the options including quantified/wh-word antecedent, the possible referent for each expression is given in parenthesis to be more precise. For the example above, the revision on the options has been made as such:

A) Kimse ile aynı kişiler (Can ile Ayşe'nin arkadaşları / the friends of Can and Ayşe)

B) Kimse dışında başka birileri (Can ile Ayşe / Can and Ayşe)

As for the other quantified/wh-word antecedent subjects, necessary corrections were made to make the interpretations more clear. Accordingly, some revisions were made on the test items 5, 9, 13, and 16.

Second, originally there were 12 questions, which means that there were 3 questions representing each condition. Considering the ambiguous readings (bound vs. disjoint) for three conditions, the number of questions were unbalanced. Therefore, for each condition there should be even number of questions to represent the 2 interpretations equally. Accordingly, the number of questions was increased to 16, corresponding 4 questions for each condition.

As for the CGJT, in which the participants were asked to judge whether the sentences they read were pragmatically inappropriate or not, it was understood that some participants systematically corrected another linguistic unit(s) in some of the sentences on the grounds that they focused on finding a mistake in the sentences. The reasons for this stemmed from the contextual information given before the sentences. Originally, participants were told that contexts were only given to

them to establish background information regarding the target sentences and told not to answer the questions depending on the context. However, some participants were observed to correct the sentences according to the information present in the context. In order to minimize these wrong judgements, some of the target sentences were corrected and revised according to the contextual information. To give an example:

Test Item 1

The context: Geçen sene kız kardeşim dilbilimde doktora yapmak için yurtdışına gitti. Ben ve ailem onun için çok mutlu olduk ama onunla çok az konuşabiliyoruz. Çünkü sürekli ders çalışıyor. (Last year my sister went abroad to do a PhD in linguistics. My family and I were very happy for her but we can barely talk to her. Because she is always studying).

Target sentence: Kız kardeşim uzun süredir yurtdışında olduğu ve sürekli ders çalıştığı için onunla neredeyse hiç konuşamıyoruz (My sister has been abroad for a long time and we barely talk to her since she is always studying)

Originally, most learners judged this sentence wrong by correcting the expression *uzun süredir/for a long time* in the target sentence with the expression *bir sene/a year* on the grounds that in the context it says *last year* rather than *for a while*. In addition to this, since sentence complexity might have possibly led them to judge a sentence unacceptable, sentences were made simpler, only conveying the relevant information. Accordingly, such revisions were made on the sentence and the target sentence above was revised as in the following:

Kız kardeşim bir süredir yurtdışında ve sürekli ders çalışıyor (My sister has been abroad for a while and she is always studying).

In order to hinder the wrong judgments of the speakers, target sentences were made to be fully compatible with the context, where the information in the target sentence exactly matches the context. Accordingly, some revisions were made on the test items 1, 8, 11, and 12.

3.3.2. Main Study

This part introduces the data collection procedure of the main study.

3.3.2.1. Data Collection Procedure of the Control Group

Tests were given to students in a classroom and they were told to have approximately 30 minutes to complete the tests. Each participant completed the three tests provided to them. First, written consent was taken from all participants of the control group who wanted to take part in the study. Further, they were asked to complete information concerning their age, gender, mother tongue and so on. Originally, there were 32 participants. However, 6 of the participants did not correct the unacceptable answers in the CGJT and QAT. Therefore, the tests of these participants were not assessed, which otherwise would have influenced the results. Overall, data from 26 participants were taken into consideration. At the end of the test, participants were asked to share their opinion about the tests and they were asked whether they understood what was tested in the study. Most of the participants told that the test was about subjects in Turkish but they could not explain and justify the rationale behind the test items, which hints that they could not understand what is tested.

3.3.2.2. Data Collection Procedure of the Learner Group

The participants are native speakers of Korean and Japanese L2 Turkish speakers representing the DNS group, and English and German L2 Turkish speakers representing the NNS group. Unlike the control group, the data from the experimental group were gathered from different places and at different times.

All participants were accessed by the researcher himself and requested to conduct the survey. Those who wanted to participate in the study were asked to complete the survey immediately. However, most of the participants were unwilling to carry out the study because of the number of tests and the time they thought they would spend on answering the tests. Therefore, those who wanted to complete the survey later in their free time were asked to do so and the tests were sent to them online. These participants were strictly told not to spend more than an hour to complete the tests and instructions were also given orally to make sure that they understood how they were going to answer the tests. Further, they were strictly told to correct unacceptable options in the tasks 2 and 3. Apart from this, some of the participants were accessed through e-mail and an online version of the questionnaire was sent to them.

Each participant was given three tests to complete and before starting to do the tests they were given voluntary consent form, which explains the content of the study without giving too much

detail. Moreover, they were asked to send an e-mail to the researcher whether they had any questions related to the study.

Before taking the tests, the participants were instructed to give certain personal information in Turkish. The questions provided to them are:

1) How old are you?
2) What is your gender?
3) What is your mother tongue?
4) What is your occupation?
5) What is your educational status?
6) Have you ever lived in Turkey? If so, please answer the 7th question.
7) Briefly explain how long have you been living in Turkey?
8) Where did you learn Turkish? Briefly explain.
9) Do you have Turkish language certificate? On which date you got it? Briefly explain.
10) What is your proficiency level according to the current language certificate you have. Please tick the relevant boxes.

Temel I	☐	A1	☐
Temel II	☐		
Temel III	☐	A2	☐
Temel IV	☐		
Orta I	☐	B1	☐
Orta II	☐		
Orta III	☐		
Orta IV	☐		
Yüksek I	☐	B2	☐
Yüksek II	☐		
Yüksek III	☐	C1	☐
Yüksek IV	☐		
		Other: ……..	

10) How long have you been learning Turkish?
11) When did you start learning Turkish?
12) Do you know another language other than Turkish?

According to the background information that the participants provided, those who did not meet certain requirements were omitted from the study. These requirements are: i) they have a certificate of Turkish language representing either intermediate (B1) or advanced (C1) level, ii) they are native speakers of Korean, Japanese, English, or German iii) they shouldn't have lived in Turkey more than 30 years. The reason for this criterion is that these participants tend to have native-like competence.

On the basis of their language certificate and oral interviews, as for the learner groups, 68 participants were included in the study in total. 44 of them are speakers of Korean (20 participants) and Japanese (22 participants) which represent the discourse null subject (DNS) speakers whereas 26 of them are speakers of English (12 participants) and German (14 participants) representing the non-null subject (NNS) speakers.

Further, as for the participants representing the DNS group, 27 participants (17 Japanese; 10 Korean) are grouped into the advanced level, labelled as the advanced speakers of discourse null subject languages (ADV-DNS) and 15 participants (5 Japanese; 10 Korean) are grouped into the intermediate level, named as the intermediate speakers of discourse null subject languages (INT-DNS).

As for the participants representing the NNS group, 15 participants (9 German; 6 English) are grouped into the advanced level, labelled as the advanced speakers of non-null subject languages (ADV-NNS) and 11 participants (5 German; 6 English) are grouped into the intermediate level, named as the intermediate speakers of non-null subject languages (INT-NNS).

Overall, the number of participants in the study are as follows: 26 native speakers (NS), 27 ADV-DNS, 15 INT-DNS, 15 ADV-NNS, and 11 INT-NNS.

Overall, in total there are 94 speakers who took part in the study. The table below summarizes the number of participants for each language group:

Table 6

The number of participants in the study

Participants	**Control Group**	**Learner Group**	
NSP typology	Agreement null subject	Discourse null subject	Non-null subject
L1 of the speakers	Turkish	(Japanese and Korean)	(English and German)
Total number of participants	26	42	26
Advanced	-	27	15
Intermediate	-	15	11

3.4. DATA ANALYSIS

For the analysis of the data obtained from each task in the study, both descriptive and statistical analyses were implemented.

Descriptive analysis was carried out in order to fully grasp the significance of the quantitative data and it involves comparing the score performance of each group and the proficiency of L2 learners against that of the control group and that of the other L2 groups and proficiencies. The analysis is based on the mean scores that the groups obtained from each experiment (i.e. 100 % success equals to 32 points for the Overt Pronoun Constraint Task (OPCT), 24 points for the Contextualized Grammaticality Judgement Task (CGJT) and 32 points for the Question-Answer Task (QAT)).

Concerning the statistical analysis implemented in the study, mean score performances of the L2 groups were compared against the means of the control group and of the other L2 groups. With this purpose in mind, three statistical analyses were carried out on the data gathered from the three data collection tools, to which ANOVA and t-tests were applied:

(i) intergroup comparison for each condition – it involves comparing the means of all the groups against each other across single conditions. The aim of this analysis is to find out whether the comparison of the means for two groups yields statistically significant differences across single contexts or not.

(ii) intragroup comparison between different paired conditions – it involves comparing the differences each group made across different paired contexts. This analysis aims to indicate whether there are statistically significant differences that each group exclusively makes across paired conditions.

(iii) intergroup comparison between different paired conditions – it involves comparing the groups against each other across different paired conditions. This analysis intends to fathom how the statistically significant differences, if any, across different paired conditions for a single group give rise to differences when compared with the other groups.

The above mentioned statistical analyses not only enable us to compare the performances of the groups but it also paves the way for an in-depth thinking on the differences as reflected in different types of conditions. Therefore, in the same line with the research questions, such discussions will contribute to the current debates on how formal and discursive features of null and overt subject distribution is acquired in Turkish with respect to the speakers of different language groups.

As for the statistical tools employed in the study, the learner groups and the control group were taken to be independent variables since the groups constitute categorical value. On the other hand, the answers that the participants for each group gave to three tasks were taken to be dependent variables as the answers comprise continuous value, which can be measured across intervals (i.e. for the OPCT, each given condition is ranked from 0 to 8 points).

Relevant to this, the findings of each task were first organized into columns and rows in Microsoft Excel and then transferred into IBM SPSS Statistics software (version 23). Considering this, for intergroup comparisons – corresponding to the first and the third statistical analyses - one-way ANOVA was conducted to compare the mean differences among more than two groups in order to test whether these distinctions are statistically significant or not. As standard, alpha value (p) is taken to be 0.05, which gives 95 % confidence interval, to ensure the validity of the results. This means that if the p value is < 0.05 the result is to be interpreted as statistically significant, however if the p value is > 0.05 or equal to 0.05 the result is interpreted as statistically insignificant. Following that, if the overall performances of the groups yield statistically significant differences, two types of t-tests were applied to find out where the difference lies. The aim of conducting t-tests is to find out whether the difference between two groups is statistically significant or not. ANOVA merely reveals statistically significant or insignificant differences

among more than two groups. However, it does not specifically indicate where exactly the means for two groups become dissimilar. Therefore, two sample t-test, a type of t-test for comparing the group means of two independent groups, was applied to compare two groups with respect to single or two conditions. This corresponds to the statistical analyses conducted on intergroup comparisons, corresponding to the first and third statistical analyses.

Additionally, paired sample t-test, a type of t-test for comparing two dependent groups or variables, was carried out to understand whether the comparison of two-conditions brings in statistically significant results for each of the group in the study. This corresponds to the second statistical analysis on intragroup comparison.

As the number of participants is unbalanced for each group, the *Levene's test for homogeneity of variances* was observed to statistically This means that if the result for homogeneity of variance is > 0.05 the relevant data has been interpreted as homogenous and the analysis will be conducted based on the fact that equal variances are assumed. However, if the result for homogeneity of variance is < 0.05 or equal to 0.05, the data has been interpreted as not homogenous. In order to avoid Type 1 error (the null hypothesis is incorrectly rejected), which might be caused by the rate of confidence interval or the heterogeneous data, relevant statistical analyses were conducted taking into consideration the fact that equal variances are not assumed. To put it differently, depending on the Levene's test for homogeneity of variances, two results (equal variances assumed and equal variances not assumed) can be fetched for each condition. For each analysis in question, a relevant assumption was selected and the statistical analysis was conducted accordingly.

3.5. LIMITATIONS

There are several limitations to the study which are explicated below:

1. The test items of the study assess the interpretation of the L2 learners on the given formal or discursive constraints. That is, the L2 learners interpreted the data presented to them, rather than producing the data themselves. However, the current study did not draw on tests which could possibly assess the production of the null and overt subjects by the L2 learners themselves such as *story telling* or *translating the given structure into the target language*.

2. The current study collected data from offline tasks which does not assess the online processing of the target structures in L2 grammar. In other words, the study did not employ such tools as self-paced reading or eye-tracking to understand the online processing of null and overt subject distribution.

3. As it seems unlikely to control this variable, as for the control group of the study, the participants were exposed to English as a second language. Considering the learner groups, the study also did not control whether the L2 speakers were exposed to English or any other language other than Turkish.

4. The study included the L2 participants with different L1s who were not in the same learning environment. Therefore, tasks in the study were not applied to a single homogenous group. Rather, the participants differed in the way they learned the target grammar given the fact that the study investigates the acquisition of subjects across different language groups.

5. The study did not hold a placement test to determine the proficiency level of the participants. The reason for this is that to apply such a test would cause both methodological and practical problems. From the methodological perspective, holding a placement test would require assessing four skills of language learning – speaking, listening, reading, and writing. This would certainly involve four tests designed to evaluate each of these language skills. Otherwise, applying a limited number of grammar and vocabulary tests for the language assessment would not be sufficient for determining the proficiency levels for reasons that it would only assess a small part of the interlanguage development of L2 speakers. From the practical perspective, completing a placement test would take a lot of time of the participants considering the fact that participants were already expected to complete three separate tests which last for no less than 30 minutes in this study. Therefore, the language certificates of the L2 groups certifying their proficiency levels were taken into account.

6. The number of each L2 group in the study is unbalanced. As stated before, the participants of the study were from different learning environments. Given that the participants were reached by the researcher himself in different places and at different times, it was impossible to equate the number of participants for each language group and proficiency level.

7. The reflexive pronouns *kendi(self)* and *kendisi* (*self-3SING)* are also pronominals which can function as subject pronouns (Özsoy, 1987). Considering this, the interpretation of the subject

pronouns *kendi* or *kendisi* by the L2 Turkish speakers were not included into the current study. First, the binding properties of *kendisi* seem to differ from the other subject pronouns. That is, *kendisi* can freely be bound to any type of antecedent in the matrix clause - either referential DP or quantified/wh-word (Gürel, 2006), which obviously does not obey the constraints of the OPC. Second, in a study conducted by Özbek and Kahraman (2016), it was also argued that *kendisi* differs from the other reflexive pronoun *kendi* in terms of binding properties, where *kendi* is considered to be much freer than *kendisi*. With respect to these points raised above, it can be argued that the acquisition of binding properties of *kendi* and *kendisi* in L2 Turkish needs to be investigated in independent studies.

8. The current study only investigates the null and overt subjects in L2 Turkish in different sentence positions. Although Turkish allows null objects as well, this was not included into the objectives of the study.

CHAPTER 4

FINDINGS AND DISCUSSION

In this part, the data obtained from the three tasks are analyzed and discussed. For each task, both descriptive and statistical analysis, which compare the performances of the L2 learners against the control group and among themselves, are carried out. Following this, discussion of the findings for each task is held. Afterwards, in order to draw a general conclusion, overall discussion of the three tasks is presented by evaluating the findings in relation to recent L2 debates.

4.1. RESULTS OF THE OVERT PRONOUN CONSTRAINT TASK (OPCT)

In this section, the results of the Overt Pronoun Constraint Task (OPCT) have been descriptively and statistically analyzed and then discussed. As stated before, the OPCT questions the syntactic constraints that regulate the null and overt subject distribution in Turkish. Considering this, this task is addressed to understand whether syntactic constraints are acquired by the L2 speakers or not.

4.1.1. Descriptive Analysis of the OPCT

As stated before, each condition of the OPCT is represented with 4 questions. Unlike condition 2 in which all the questions represent the only available disjoint / free variable reading, there is an ambiguity of reference for the embedded subject for the other three conditions. Bound variable interpretations force the participants to bind the embedded subject (either overt or null) to the matrix antecedent whereas free variable interpretations constrain the participants to bind the antecedent of the embedded subject to a third party in the discourse.

With respect to this, the descriptive results for the OPCT can be given in Table 7 below, where the mean differences for each group and condition can be seen. Note that the maximum point for the groups to get from each condition is 8.

Table 7

Descriptive results of the OPCT

Groups	**Conditions**			
	Qwh/null	Qwh/overt	DP/null	DP/overt
NS	7.08	7.47	8.00	7.23
ADV-DNS	7.26	6.14	7.55	5.81
ADV-NNS	7.13	6.40	7.07	5.33
INT-DNS	5.33	5.33	6.87	4.60
INT-NNS	5.55	5.09	6.09	4.91

Qwh/null= quantified/wh-word antecedent with a null embedded pronoun (Condition 1); **Qwh/overt=** quantified/wh-word antecedent with an overt embedded pronoun *o (s/he)* (Condition 2); **DP/null=** referential antecedent with a null embedded pronoun (Condition 3); **DP /overt** =referential antecedent with an overt embedded pronoun *o (s/he)* (Condition 4); **NS=** native speakers, **ADV-DNS=** the advanced speakers of discourse null subject languages; **ADV-NNS=** the advanced speakers of non-null subject languages; **INT-DNS=** the intermediate speakers of discourse null subject languages; **INT-NNS=** the intermediate speakers of null subject languages.

The descriptive analysis is based on the following order. First, the performances of the L2 speakers are compared among themselves across all conditions, which is followed by the comparison of the mean score differences between the L2 speakers and the native speakers (NS).

The data fetched from the five groups indicated differences in the mean score performances for the co-indexation between the subjects of the embedded and matrix clause. First, the descriptive results suggest that when the performances of the advanced speakers and intermediate speakers were compared among themselves, it can be stated that L2 learners did not remarkably differ in their performances in spite of representing different language typologies as to the null subject parameter (NSP). In other words, both the advanced and intermediate groups have performed roughly the same scores among themselves. This suggests that L1 differences might not have a direct influence on the acquisition of formally conditioned regulations governing the use of null and overt subjects. Another finding indicates that the advanced groups remarkably differed in their performances from the intermediate groups with respect to four conditions. This finding can be taken as an indication of the fact that syntactic acquisition of null and overt subject distinction remarkably increased during the interlanguage development.

Based on the comparison between the advanced speakers of the discourse null subject languages (ADV-DNS) and the advanced speakers of the non-null subject languages (ADV-NNS) with the

NS, the mean performances yielded roughly the same scores concerning the Condition 1 (Con1) (ADV-DNS= 7.26, ADV-NNS= 7.13; NS= 7.08 out 8 times) and Condition 3 (Con3) (ADV-DNS = 7.55, ADV-NNS= 7.07; NS= 8 out of 8 times). This means that the advanced speakers displayed sensitivity to the co-indexation between null embedded subject and matrix subject (either quantified/wh-word or referential DP) as required by the stipulated conditions. On the other hand, the performances slightly differed with respect to Condition 2 (Con2) (ADV-DNS= 6.15, ADV-NNS= 6.40; NS= 7.47 out of 8 times) Moreover, regarding the Condition 4 (Con4), which asks for the co-interpretation between overt embedded pronoun *o (s/he)* and referential DP antecedent, the results pinpoint that the performances of the advanced groups remarkably differed from that of the NS (ADV 1= 5.09, ADV 2= 5.33; NS= 7.23 out of 8 times), which requires further analysis as to the reasons for this dramatic difference.

To put it aside, the performances of the intermediate speakers of both groups considerably differed from the performances of the NS as can be seen in the descriptive results for all conditions. These results indicate the interlanguage grammar development based on the proficiency level of the L2 speakers.

The data fetched from Con2 is of a greater importance, in which the antecedent of the overt embedded pronoun *o (s/he)* is a quantified or wh-element. As stipulated by the OPC (Montalbetti, 1984), no matter what the context is, the overt embedded pronoun *o (s/he)* cannot be bound to a quantified or wh-element antecedent. Concerning this, despite partially showing native like attainment, the results seem to suggest that the advanced speakers of both groups displayed sensitivity to this constraint. Moreover, the performances of the L2 groups remarkably increased based on the proficiency levels (intermediate discourse null subject language speakers (INT-DNS) = 5.33, intermediate non-null subject language speakers (INT-NNS) = 5.09 whereas ADV-DNS = 6.14, ADV-NNS= 6.40 out of 8 times).

4.1.2. Statistical Analysis of the OPCT

This part is divided into three sections in which statistical analyses conducted on group comparisons across the conditions are given.

4.1.2.1. Intergroup Comparison of Each Condition for the OPCT

In this part, groups are compared against each other across single conditions. Relevant to intergroup comparison, *ANOVA* is conducted to compare the group means and it is followed by *two-sample two tests*. Following this, in order to better interpret the data, this part is further divided into four sub-sections, each corresponding to analysis on intergroup comparison for each condition. The analysis has two folds. First, the performances of each learner group are compared against that of the NS. Then, the performances of L2 speakers are compared among themselves.

4.1.2.1.1. Intergroup Comparison of Con1 for the OPCT

Con1 is a representative of the co-reference interpretation between null embedded subject and quantified/wh-word antecedent. It involves two different interpretations. The null embedded subject can either be bound to an antecedent or a third party in the discourse. Regarding this, the results of the intergroup comparison of Con1 are displayed in Table 8 below:

Table 8

Intergroup comparison of Con1 for the OPCT

Groups	Con1		
	t(f)	d.f.	*p*
ANOVA	8.61	93	0.0001
ADV-DNS vs. NS	0.65	51	0.518
ADV-NNS vs. NS	0.17	39	0.867
INT-DNS vs. NS	3.12	19	0.006
INT-NNS vs. NS	3.71	16	0.002
ADV-DNS vs. ADV-NNS	0.36	40	0.720
ADV-DNS vs. INT-DNS	3.45	20	0.003
ADV-NNS vs. INT-NNS	3.40	24	0.002
INT-DNS vs. INT-NNS	0.02	24	0.985

Concerning the means of the groups *as per* Con1, ANOVA revealed a statistically significant difference (f=8.61 p=0.0001). As the difference among the groups does not necessarily indicate a difference for each paired group, two-sample t-tests have been carried out in order to understand where the difference lies.

The results for the ADV-DNS vs. NS showed no statistically significant difference for Con1 (t= 0.65, p=0.518). Likewise, the comparison between the ADV-NNS vs. NS revealed no statistically significant difference in the co-reference interpretation for Con1 (t=0.17, p=0.867).

Taking this into account, it can be argued that the ADV-DNS and ADV-NNS attained native-like performance concerning the co-indexation between the null embedded pronoun and quantified/wh antecedent matrix subject. This means that when the context forces them to select an either bound or disjoint interpretation in the context of quantified/wh-subject antecedent in the main clause, the advanced L2 speakers perfomed native-like. This can be observed in the following examples:

Test Item 16

The context: Öğretmen seneye 18 yaşına girecek öğrencilerine sordu: (The teacher asked his students who will turn 18 next year:).

(61) Kim*i* [*proi/?j* [17]18 yaşına girdiğinde oy kullanma hakkına sahip olduğunu] biliyor? (Who*i* knows [that *proi/?j* has right to vote in 18]?)

As (61) displays, depending on the context, the matrix subject *kim (who)* is coindexed with *pro* and the advanced speakers of the both groups are sensitive to this constraint.

Likewise, when the context forces them to select a disjoint interpretation, they interpret the null embedded subject as having a free variable:

Test Item 5

The context: Ayşe matematik ödevini yapmadığı için tedirgindi ve bu durumu sınıf arkadaşlarına da söyledi. Öğretmen sınıfa girdiğinde 'Ödevini yapamayan var mı' diye sordu. Sınıftan ses çıkmadı. (Ayşe was anxious that she hadn't done her homework on maths and told her classmates about this. Upon entering the classroom, the teacher asked 'Who couldn't do the homework'. The class kept silent).

(62) Hiçbir öğrenci*i* [*pro?i/j* ödevini yapmadığını] söylemedi. (No students*i* told [that *pro?i/j* did not do homework]).

[17]The misinterpretation of the co-reference interpretation is indicated by *?* rather than * to emphasize the misinterpretation of the contextual information.

Unlike (61), where *pro* is coindexed with an antecedent, in (62), as context stipulates, *pro* is not coindexed with the matrix antecedent *hiçbir öğrenci (no students)* and both groups of advanced speakers are sensitive to this interpretation.

On the other hand, the performances of the INT-DNS and INT-NNS significantly differed from the performances of the NS respectively (t=3.12, p=0.006; t=3.71, p=0.002). This means that they are not sensitive to the co-reference interpretation between the subjects of embedded and matrix clauses as represented in the examples (61) and (62) above. Coupled with the results obtained from the comparison of the performances between the advanced groups and the NS, where no statistically significant difference was found, it can be argued that the intermediate speakers will attain the co-reference interpretation between the null embedded pronoun and quantified/wh antecedent subject later in interlanguage grammar development.

Having discussed the results for the comparison between the L2 speakers and the NS, the L2 groups were also compared among themselves. Concerning the results for the ADV-DNS vs. INT-DNS, and ADV-NNS vs. INT-NNS respectively, the score performances indicated statistically significant differences in terms of Con1 (t=3.45, p=0.003; t=3.40, p=0.002). This is an indication of the interlanguage grammar development of the learner groups based on the proficiency levels.

Apart from this, within each group of proficiency level, the comparison of the typologically two different groups; namely, ADV-DNS vs. ADV-NNS, and INT-DNS vs. INT-NNS respectively, demonstrated no statistically significant difference as well (t=0.36, p=0.720; t=0.02, p=0.985). This finding clearly indicates that formal aspects of null and overt subject distinction is acquired independently from L1 during the interlanguage grammar development, supporting further syntactic accounts on the universality of acquisition of null and overt subjects.

4.1.2.1.2. Intergroup Comparison of Con2 for the OPCT

As a formal constraint postulated by the OPC, the overt embedded pronoun *o (s/he)* or its plural form *onlar (s/he-PLURAL)* cannot be bound to a quantified/wh antecedent in Turkish. Therefore the only interpretation must be disjoint as can be seen in (63):

Test Item 3

The context: Dün çalışanlarla yapılması planlanan toplantı yönetim tarafından iptal edildi. Yöneticiler bu durumun kendilerini zor duruma soktuğunu biliyor. (The meeting with the employees that was supposed to be held yesterday was called off by the management. Managers know that this situation has put them in a difficult position).

(63) Herkes*i* [onların[18] **i/j* haksız olduğunu] düşünüyor. Everybody*i* thinks [that they**i/j* are unfair].

In (63) the overt embedded pronoun *onlar (they)* has a free variable reading, referring to a third party in the discourse. Whether the context introduces a third party or not does not constrain the readers to select the disjoint interpretation. Therefore, participants are expected to select the free variable reading so that we can assert that this constraint is acquired.

Regarding this, Con2 is represented with 4 contextualized sentences in which the participants were asked to determine the co-reference relationship between the overt embedded subject *o (s/he)* and quantified/wh-word antecedent in the matrix clause. The intergroup comparison of Con2 can be seen below:

Table 9

Intergroup comparison of Con2 for the OPCT

Groups	Con2		
	t(f)	d.f.	*p*
ANOVA	6.62	93	0.0001
ADV-DNS vs. NS	3.07	51	0.003
ADV-NNS vs. NS	2.60	39	0.013
INT-DNS vs. NS	4.52	21	0.0001
INT-NNS vs. NS	4.41	14	0.001
ADV-DNS vs. ADV-NNS	0.43	40	0.666
ADV-DNS vs. INT-DNS	1.39	40	0.173
ADV-NNS vs. INT-NNS	2.08	24	0.049
INT-DNS vs. INT-NNS	0.37	24	0.712

[18] Since the overt embedded subject cannot be co-referential with an antecedent, the choice to bind the embedded subject to an antecedent results in an ungrammatical sentence.

Considering the results, ANOVA indicated a statistically significant difference among the groups (f= 6.62, p=0.0001), which was followed by t-tests to statistically determine the mean differences between two compared groups.

The comparison of the ADV-DNS and ADV-NNS with the NS indicated statistically significant differences respectively (t=3.07, p= 0.003; t=2.60, p=0.013). This means that the advanced speakers did not seem to attain native like performance unlike what is expected. However, as White (2003) put it, deviation from the native-like attainment in L2 studies with respect to score performances might not necessarily indicate a divergence from the target grammar. In other words, some participants might simply fail to observe particular constraints due to performance factors. Considering this, when the individual data were analyzed, no single participant was observed to violate all of the co-reference interpretations. Moreover, as the descriptive analysis also revealed, the ADV-DNS and ADV-NNS performed 6.14 and 6.40 out of 8 times respectively. Therefore, it can be claimed that the statistical difference does not necessarily disprove that the grammar of L2 speakers converge on the grammar of the NS concerning the co-indexation between the overt embedded pronoun *o (s/he)* and quantified/wh-word antecedent.

In parallel, the comparison of the data gathered from the intermediate speakers of the DNS and NNS languages with that of the NS brought about statistically significant differences as well (t=4.52, p=0.0001; t=4.42, p=0.001). This finding necessarily indicates the development of interlanguage grammar. Furthermore, compared to the advanced speakers of both groups, the significance levels, as represented with t and *p-values* in the table, suggest that the mean score performances between the intermediate speakers and the NS yielded very strong statistical difference, further justifying the development of L2 grammar.

Following this, when the learner groups were compared among themselves, no statistically significant difference was found between the ADV-DNS and ADV-NNS (t=0.43, p=0.666) and INT-DNS and INT-NNS (t=0.37, p=0.712). Once again, this result allows us to support the claim that formal features of null and overt subject use are acquired independent from L1.

Considering the comparison of the data from the ADV-DNS vs. INT-DNS, no statistically significant difference was observed (t=1.39, p=0.173). As for the comparison between ADV-NNS vs. INT-NNS, it can be argued that the difference did not provide much statistical evidence as the difference is at the threshold of confidence interval (t=2.08, p=0.049). However, when the two

data are taken into account, this finding necessarily indicates an early sensitivity to the constraints reflected in Con2, starting from the intermediate proficiency level.

4.1.2.1.3. Intergroup Comparison of Con3 for the OPCT

Con3 is characterized by the co-reference interpretation between null embedded subject and referential DP matrix subject. As the null embedded subject can be bound to an antecedent and have a free variable reading, Con3 involves ambiguity of reference, which are to be determined by the participants depending on the given contextual information. Test item 4 illustrates the bound reading:

Test Item 4

The context: Mert ile Hasan kafede oturuyorlardı. Daha sonra yanlarına Ali ve İstanbul'da yaşayan kız arkadaşı Ayşe geldi ve birlikte sohbet ettiler. Ali çok mutluydu. Mert ile Hasan nedenini sordu. Ali onlara İstanbul'daki iş için mülakata çağrıldığını söyledi. (Mert and Hasan were sitting in a cafe. Then, Ali and his girlfriend Ayşe living in İstanbul just turned up and all of them had a chat. Ali seems quite happy. Mert and Hasan asked why. Ali told them that he had been called for an interview for the job in İstanbul).

(64) Ali*i* [*proi/?j* yakında İstanbul'a gideceğini] söyledi. (Ali*i* said [that *proi/?j* will go to Istanbul soon]).

In (64), Ali told that he would leave for Istanbul, rather than anyone else introduced in the context. Therefore, the context forces us to have a bound reading.

As for the disjoint reading, Test item 14 is given below:

Test Item 14

The context: Öğrencilerin rol aldığı tiyatro gösterisi öğretmenler ve aileler tarafından ayakta alkışlandı. Herkes gösteriyi çok beğendiği için öğrenciler mutlu bir şekilde salondan ayrıldı. (The theater performance of the students was applauded loudly by the teachers and the families. Since the audience appreciated the performance the students left the hall happily).

(65) Öğretmenler*i* [*pro?i/j* çok başarılı olduklarını] düşünüyor. Teachers*i* think [that *pro ?i/j* are very successful].

In (65), teachers think that students who participated in the theater performance are very successful, not themselves; therefore, the context forces the readers to have the disjoint reading.

With respect to this, the analysis on intergroup comparison can be displayed in Table 10 below:

Table 10

Intergroup comparison of Con3 for the OPCT

Groups	Con3		
	t(f)	d.f.	*p*
ANOVA	9.25	93	0.0001
ADV-DNS vs. NS	2.89	26	0.008
ADV-NNS vs. NS	2.96	14	0.010
INT-DNS vs. NS	3.90	14	0.0001
INT-NNS vs. NS	3.87	10	0.003
ADV-DNS vs. ADV-NNS	1.57	40	0.125
ADV-DNS vs. INT-DNS	2.10	22	0.048
ADV-NNS vs. INT-NNS	1.67	18	0.094
INT-DNS vs. INT-NNS	1.43	17	0.165

ANOVA yielded a statistically significant difference among the groups (f=9.25, p=0.0001). Since the difference among the groups were significant, t-tests were conducted.

The results indicated a statistically significant difference regarding the comparison between the ADV-DNS and the NS (t=2.89, p=0.008). Likewise, the comparison of the score performances between the ADV-NNS and NS revealed a statistically significant difference as well (t=14, p=0.010).

However, there are at least two points to discuss about these findings. First, the NS had performed 8 out of 8 times (100 % success), necessarily yielding statistically significant differences compared with the data of the advanced speakers even though the ADV-DNS and ADV-NNS performed 7.55 (94 % success), and 7.07 (88 % success), out of 8 times respectively. This might suggest that the distinction characterizing the co-interpretation between the null embedded subject and DP antecedent was likely to be attained by the advanced speakers in contrast to what the statistical analysis revealed.

Second, with regard to 4 conditions, when the overall performances of the advanced speakers were taken into account, the advanced speakers of both groups were slightly more successful in their performances with respect to Con3 when compared to other conditions. This finding also suggests that native like attainment might have been achieved regarding the different interpretations of the Con3.

Following this, the comparison of the groups INT-DNS vs. NS, and INT-NNS vs. NS produced statistically significant results as well, with much more significant values respectively (t=14, p=0.0001; t= 10, p=0.003).

When the learner groups were compared among each proficiency level – ADV-DNS vs. ADV-NNS, and INT-DNS vs. INT-NNS – respectively, it can be argued that both groups did not yield statistically significant differences as the previous accounts held (t=1.57, p=0.125; t=1.43, p=0.165).

As for each learner group, the results indicated a statistically significant difference in comparison between ADV-DNS vs. INT-DNS (t=2.10, p=0.048). However, no such significance was found in the data from ADV-NNS vs. INT-NNS (t=1.67, p=0.094). This indicates that the sensitivity to the co-reference interpretation between null embedded subject and DP antecedent starts early in the interlanguage grammar development.

4.1.2.1.4. Intergroup Comparison of Con4 for the OPCT

Con4 represents the co-reference interpretation between overt embedded subject *o (s/he)* and referential DP antecedent. As it is the case for Con1 and Con3, it reflects two readings depending on the contextual information. With respect to this, the results for the intergroup comparison can be seen in Table 11 below:

Table 11

Intergroup comparison of Con4 for the OPCT

Groups	Con4		
	t(f)	d.f.	*p*
ANOVA	8.75	93	0.0001
ADV-DNS vs. NS	3.60	51	0.001
ADV-NNS vs. NS	3.94	39	0.0001
INT-DNS vs. NS	4.48	20	0.0001
INT-NNS vs. NS	5.32	35	0.0001
ADV-DNS vs. ADV-NNS	0.90	40	0.371
ADV-DNS vs. INT-DNS	2.15	40	0.038
ADV-NNS vs. INT-NNS	0.70	24	0.492
INT-DNS vs. INT-NNS	0.50	22	0.622

Considering the overall performance of the groups, ANOVA revealed a statistically significant difference (f=8.75, p=0.0001). Based on this result, the finding allowed us to carry out t-tests in order to understand which groups statistically differed in the mean scores.

As stated before, the overt embedded pronoun *o (s/he)* can be co-referential with a referential DP antecedent if the contrast is the topic itself rather than the focus. That is to say, when the target sentence is interpreted within a context which does not form contrastive focus in topic continuity contexts, the embedded *o (s/he)* can be co-referential with the referential DP:

Test Item 12

The context: Dün akşam yemeğini Ayşe yerine Özge'nin hazırladığını görünce çok şaşırdım. (I was astonished to see that Özge prepared dinner instead of Ayşe last night).

(66) Ayşe*i* [onun*i/?j* hazırlayacağını] söylemişti. (Ayşe*i* told [that she*i/?j* would prepare it]).

In this context, the speaker is surprised that *Özge* prepared dinner instead of *Ayşe* and the target sentence indicates that *Ayşe* told that she would prepare the dinner herself, not another person in the context. Therefore, the overt embedded subject *o (she)* becomes co-indexed with the referential DP antecedent.

Unlike this, when the target sentence is interpreted within a context which creates contrastive focus in topic shift contexts, the overt embedded subject is interpreted as having a disjoint reading:

Test Item 6

The context: Emre geç saate kadar ders çalıştığı için bu sabah uyanamadı. Bu yüzden oda arkadaşı Ali onu uyandırmak istemedi. (Since he studied late Emre could not wake up this morning. Therefore, his roommate Ali did not want to wake him up).

(67) Ali*i* [onun*?i/j* yorgun olduğunu] düşünüyor. (Ali*i* thinks [that he*?i/j* is tired]).

In this context *Ali* thinks that someone other than him is tired. Therefore the overt embedded pronoun *o (he)* is not co-indexed with an antecedent but it refers to someone other than *Ali* in the context.

In line with these accounts, the L2 speakers are expected to be sensitive to these constraints. When the results of the ADV-DNS and ADV-NNS were compared respectively with that of the NS, a dramatic difference can be found in terms of the co-indexation between the overt embedded pronoun *o (s/he)* and DP matrix subject (t= 3.60, p=0.001; t=3.94, p=0.0001), These results indicated that the advanced speakers of both groups did not attain the constraints governing the given co-reference interpretations illustrated in (66) and (67), which needs to be further discussed when the results from other statistical analyses are brought together. Not surprisingly, the comparison of the INT-DNS and INT-NNS with the NS also produced statistically significant differences respectively (t= 4.48, p=0.0001; t=5.32, p=0.0001).

On the other hand, the comparison among the learner groups indicated no statistically significant difference between the ADV-DNS vs. ADV-NNS data (t=0.90, p=0.371). In a similar vein, the performances of the INT-DNS vs. INT-NNS did not statistically differ either (t=0.50, p=0.622). Once again, the fact that the mean scores among each proficiency level did not statistically differ confirm the earlier accounts that formal aspects constraining the use of null and overt subjects are acquired independent from L1.

Regarding the comparison of the ADV-DNS vs. INT-DNS data, the comparison yielded a statistically significant difference (t=2.15, p=0.038), which indicates possible interlanguage development. On the other hand, the score performances of the ADV-NNS vs. INT-NNS did not

statistically differ (t=0.70, p=0.492). Obviously, this finding does not reveal interlanguage grammar development.

4.1.2.2. Intragroup Comparison between Different Paired Conditions for the OPCT

The aim of the second analysis is to understand how the score performance of each group differs across paired two conditions. The selected paired contexts are Con1 vs. Con2, Con1 vs. Con3, Con2 vs. Con4, and Con3 vs. Con4. The reason for selecting these pairs is that each pair represents a coordinate structure either in the matrix or embedded clause regarding the use of subject. To give an example, considering the pairs between Con1 and Con2, both have quantified/wh-word antecedent yet differ in the type of subject in the embedded clause. This comparison allows us to figure out how the presence of embedded subject, either overt or null in the quantified/wh antecedent context, influences the mean scores for each group.

In order to achieve this goal pointed out above, *paired-sample two tests* were conducted to understand the degree of distinction for a given type. It was used to compare two dependent pairs, in that case *conditions*, across independent five groups.

From what follows on, the intragroup comparison between different paired conditions are given in Table 12 below.

Table 12

Intragroup comparison between different paired conditions for the OPCT

Groups	Con1 vs. Con2			Con1 vs. Con3			Con2 vs. Con4			Con3 vs. Con4		
	t(f)	d.f.	*p*	*t(f)*	d.f.	*p*	*t(f)*	d.f.	*p*	*t(f)*	d.f.	*p*
NS	1.29	25	0.210	4.82	25	0.0001	0.69	25	0.503	3.08	25	0.005
ADV-DNS	2.62	26	0.015	1.16	26	0.256	0.74	26	0.465	5.63	26	0.0001
ADV-NNS	1.67	14	0.119	0.19	14	0.849	1.50	14	0.150	2.80	14	0.140
INT-DNS	0.30	14	0.765	2.87	14	0.012	0.95	14	0.358	3.40	14	0.004
INT-NNS	0.67	10	0.518	0.84	10	0.422	0.25	10	0.810	1.80	10	0.103

Comparison is based on the following order: For each of the paired contexts, the differences are discussed in relation to five different groups.

As for the pairs Con1 *per contra* Con2, the type of the embedded subject differs against the quantified/wh antecedent context. As given above, the examples (61) and (62) represent the Con1 whereas the (63) represents the Con2 where the sensitivity of the participants to these constraints was compared. Regarding this, the NS did not yield a statistically significant difference as expected (t=1.29, p=0.210). With respect to the ADV-DNS data, a significant difference occurred between the presence of the overt embedded subject *o (s/he)* and null subject (t=2.62, p=0.015). As discussed before, the reason for this difference might be rooted in performance factors. In terms of the ADV-NNS data, no significant difference was found (t= 1.67, p= 0.119). This also indicates that the distinction between the use of overt and null embedded subject has been attained at the advanced proficiency level. On the other hand, regarding the INT-DNS and INT-NNS data respectively, both groups did not yield statistically significant differences either (t=0.30, p=0.765; t=0.67, p=0.518).

As for the pairs Con1 vs. Con3, the type of antecedent in the matrix subject differs against the null embedded subject. As illustrated before, Con1 is represented by the examples (61) and (62) whereas Con3 is exemplified by (64) and (65). Considering this, the means of the NS unexpectedly, yet statistically, differed for the given pair (t= 4.82, p=0.0001). However, it can be argued that the NS did not deviate from the patterns present at each condition despite the statistically significant difference. As discussed before, the NS has performed 8 out of 8 times, corresponding to 100 % success. Since the same group has performed 7.08 out of 8 times, paired samples correlations for both conditions are not available, necessarily resulting in statistically significant difference in the results. As for the advanced speakers of both groups, the comparison of the given pairs did not result in statistically significant differences respectively (t=1.16, p=0.256; t=0.19, p=0.849). This means that, the presence of quantified/wh-word or lexical DP antecedent against the null embedded subject context did not give rise to a difference in the results. Conversely, regarding the performance of the INT-DNS, the difference was statistically significant (t=2.87, p=0.012), where the INT-DNS performed much better in Con3 (6.87 out of 8 times). This finding suggests that the INT-DNS is more sensitive to the co-reference interpretation between the null embedded subject and DP antecedent. On the other hand, the means for the INT-NNS did not give rise to a significant difference (t=0.84, p=0.422). Overall, it can be argued that the reason for the statistically significant differences for the given pair can be linked to the high score performance that each group displayed in Con3, where the mean scores for five groups corresponded to their highest score performances. Therefore, it can be claimed that L2 speakers are more likely to readily accept the co-indexation between the null embedded subject and DP antecedent.

As for the comparison between Con2 vs. Con4, the type of antecedent differs against the overt embedded subject *o (s/he)*. Con2 manifests a quantified/wh antecedent matrix subject, as exemplified by (63) whereas Con4 is represented with a referential DP antecedent as illustrated by the examples (66) and (67) above. Regarding the paired comparison, no statistically significant difference was observed for each group. This finding suggests that the choice as to the co-indexation between different type of antecedents does not give rise to a difference in score performances when the embedded subject is overt.

As part of the last analysis for this section, the paired conditions Con3 vs. Con4 are represented with a referential DP antecedent against the null or overt embedded subject. That's why, the aim is to understand how the performances of each group differ depending on the type of embedded subject against the DP antecedent. With respect to this, the comparison indicated that the NS yielded a statistically significant difference (t=3.08, p=0.005). As discussed above, this divergence has roots in high performance attained by the NS in Con3. Although the NS performed 7.23 out of 8 times for Con4, corresponding to 90,38 % success, this difference gave rise to a statistically significant difference. As for the ADV-DNS data, the difference was statistically significant (t=5.63, p=0.0001). The reason for this difference stems from the fact that the ADV-DNS have been more successful in Con3 (7.55 out of 8 times) when compared to Con4 (5.81 out of 8 times). Likewise, the means of the INT-DNS also gave rise to a statistically significant difference (t=3.40, p=0.004). Contrary to these results, no statistically significant difference was observed among the ADV-NNS and INT-NNS respectively (t=2.80 p=0.140; t=1.80 p=0.103). There are at least two points to discuss about this finding. First, unlike the DNS speakers, the sensitivity to the constraints present at Con4 did not develop in the advanced proficiency level. Notwithstanding, regarding these findings, one point that needs to be raised is that the mean scores for five groups corresponded to their lowest score performances in Con4. Therefore, the reason for this difference might be accounted for the presence of the discursive rules. As claimed before, overt embedded subject *o (s/he)* can be bound to a referential DP antecedent when the context creates a contrastive topic reading. Otherwise, when the context creates a contrastive focus reading, overt embedded subject *o (s/he)* refers to a third party in the discourse, having a free variable reading.

4.1.2.3. Intergroup Comparison between Different Paired Conditions for the OPCT

In this part, based on the previously established paired conditions, groups were compared among each other. Considering this, the aim of this analysis is to find out how the differences found in the intragroup comparison for each group create differences when two groups are compared. As in the case of intergroup comparison, *ANOVA* was conducted to understand whether the difference among the groups are statistically significant or not, and it was followed by *two-sample t-tests* to compare two groups with each other. In line with this, in order to have better knowledge of the statistical data, the analysis was further divided into four sub-sections, each corresponding to a different paired condition. Comparison was made on the following order: First, the mean differences between the learner groups and the NS were compared and it was followed by the comparison among the learner groups themselves. As in the case of previous analysis, comparison was based on the total scores for each condition.

4.1.2.3.1. Intergroup Comparison of Con1 vs. Con2 for the OPCT

The results for intergroup comparison between Con1 vs. Con2 can be displayed in Table 13 below:

Table 13

Intergroup comparison of Con1 vs. Con2 for the OPCT

Groups	Con1 vs. Con2		
	t(f)	d.f.	*p*
ANOVA	13.29	93	0.0001
ADV-DNS vs. NS	2.28	44	0.027
ADV-NNS vs. NS	1.67	21	0.111
INT-DNS vs. NS	5.71	20	0.0001
INT-NNS vs. NS	6.44	15	0.0001
ADV-DNS vs. ADV-NNS	0.18	30	0.855
ADV-DNS vs. INT-DNS	3.54	28	0.001
ADV-NNS vs. INT-NNS	3.78	23	0.009
INT-DNS vs. INT-NNS	0.29	24	0.775

ANOVA revealed a statistically significant difference across all the groups (f=13.29, p=0.0001). Therefore, in order to understand how the performances of two groups differed, t-tests were carried out.

In terms of the comparison for ADV-DNS vs. NS, the difference is statistically significant (t=2.28, p=0.027). This finding suggests that the ADV-DNS did not reach a native like attainment. This means that the sensitivity to the constraints between null or overt embedded subject against the quantified/wh antecedent context is not native like. Yet, as discussed before, the difference might be rooted in performance factors. Second, as for the comparison for the ADV-NNS vs. NS, no significant difference was found as anticipated before (t=1.67, p=0.111). This finding indicates that the interlanguage grammar of the ADV-NNS attained native like performance in the context of quantified/wh antecedent across the overt or null embedded subject.

While the comparison of the advanced speakers with the NS emphasizes the role of long-term exposure to L2 grammar, the very same comparison with the L2 speakers of INT-DNS and INT-NNS with the NS respectively proves this, where statistically significant differences were found (t=5.71, p=0.0001; t=6.44, p=0.0001), with considerably smallar *p-values*, hence providing strong evidence as to the interlanguage grammar development.

Considering the comparison between learner groups among themselves, no statistically significant differences were found between ADV-DNS vs. ADV-NNS (t=0.18, p=0.855), and INT-DNS vs. INT-NNS (t=0.29, p=0.775) just as the intergroup comparison between single conditions revealed. This means that the score performances of two different L2 groups did not differ with regard to the type of embedded subject in the context of a quantified/wh antecedent. Once more, this finding is an indication of the fact that the differences in L1 do not have an impact upon L2 acquisition of the given formal features. Not surprisingly, comparison among each learner group (ADV-DNS vs. INT-DNS and ADV-NNS vs. INT-NNS) did not reveal statistically significant differences respectively (t=3.54, p= 0.001; t=3.78, p=0.009). The fact that the advanced speakers of the L2 groups performed better than the intermediate speakers sets forth the aforementioned justification for development of the interlanguage grammar with exposure to L2 data.

4.1.2.3.2. Intergroup Comparison of Con1 vs. Con3 for the OPCT

Table 14 below displays the intergroup comparison of Con1 vs. Con3:

Table 14

Intergroup comparison of Con1 vs. Con3 for the OPCT

Groups	Con1 vs. Con3		
	t(f)	d.f.	*p*
ANOVA	13.97	93	0.0001
ADV-DNS vs. NS	0.82	48	0.417
ADV-NNS vs. NS	1.64	18	0.118
INT-DNS vs. NS	4.20	17	0.0001
INT-NNS vs. NS	5.67	12	0.0001
ADV-DNS vs. ADV-NNS	1.10	22	0.286
ADV-DNS vs. INT-DNS	3.66	19	0.002
ADV-NNS vs. INT-NNS	3.37	22	0.003
INT-DNS vs. INT-NNS	0.91	24	0.370

ANOVA demonstrated a statistically significant difference across all groups (f=13.97, p=0.0001), which needs to be followed by two-tests to determine the difference between the comparison of the two groups.

When the performances of the ADV-DNS and ADV-NNS were compared with the NS respectively, the group means did not result in statistically significant differences (t=0.82, p=0.417; t=1.64, p=0.118). Therefore, it can be argued that native like attainment has been achieved by the advanced speakers of both groups when the embedded subject is null *per contra* the type of matrix subject.

Alongside this, further comparison between the learner groups and the NS indicated statistically significant differences with regard to the INT-DNS and INT-NNS data respectively (t=4.20, p=0.0001; t=5.67, p=0.0001). Overall, when the data fetched from the comparison between the L2 speakers and the NS were closely scrutinized, it can be argued that the sensitivity to the co-reference interpretation between the null embedded subject and referential or quantified/wh antecedent matrix subject is gained through exposure to L2 grammar, hence characterizing the process of native-like attainment. Therefore, the results from the INT-DNS and INT-NNS indicate that mastery of the formal rules are attained only through exposure to L2 input.

Following this, the second phase of the analysis, which compares the learner groups among themselves, has brought forth identical results vis-à-vis the preceding discussions held for the

Con1 vs. Con2. Concordantly, the performances of the comparison for the ADV-DNS vs. ADV-NNS did not statistically differ as to the distinction between Con1 vs. Con3 (t=1.10, p=0.286). Similar to this, the mean differences between the INT-DNS vs. INT-NNS did not statistically differ as well (t=0.91, p=0.370). In other words, no significant tendency over a particular condition was observed among these groups when the embedded subject is null against the type of matrix subject. Since no difference was observed between the two paired groups, the findings clearly follow the previously held formal accounts on the L2 acquisition of null and overt subject distinction. In conjunction with this, the comparison within the learner groups gave rise to statistically significant differences respectively (ADV-DNS vs. INT-DNS, t=3.66, p=0.002; ADV-NNS vs. INT-NNS, t=3.37, p=0.003). Once again, this finding points out that the sensitivity to the constraints present at Con1 vs. Con3 increases based on the proficiency level.

4.1.2.3.3. Intergroup Comparison of Con2 vs. Con4 for the OPCT

Concerning the intergroup comparison of Con2 vs. Con4, the results can be seen in Table 15 below:

Table 15

Intergroup comparison of Con2 vs. Con4 for the OPCT

Groups	Con2 vs. Con4		
	t(f)	d.f.	*p*
ANOVA	17.32	93	0.0001
ADV-DNS vs. NS	4.61	43	0.0001
ADV-NNS vs. NS	4.94	25	0.0001
INT-DNS vs. NS	7.29	22	0.0001
INT-NNS vs. NS	9.51	24	0.0001
ADV-DNS vs. ADV-NNS	0.32	36	0.750
ADV-DNS vs. INT-DNS	2.67	33	0.011
ADV-NNS vs. INT-NNS	2.72	24	0.012
INT-DNS vs. INT-NNS	0.97	23	0.924

Based on ANOVA results, the findings indicated a statistically significant difference with regard to the group data (f=17.32, t=0.0001). Hence, t-tests were conducted to figure out the mean differences between two groups.

Regarding the comparison between the L2 group data and the NS, the mean score performances of the ADV-DNS and ADV-NNS statistically differed from that of the NS respectively (t=4.61, p=0.0001; t=4.94, p=0.0001). This finding demonstrates that when the embedded subject is overt against two different types of antecedent, the sensitivity to the constraints as present at Con2 vs Con4 has not been attained by the advanced speakers. The reason for this difference is grounded in lower score performances that the participants displayed in Con4. Furthermore, the fact that no statistically significant difference has been found between the pairs Con1 vs. Con2 for the same group also supports the reason for the given difference.

As discussed before, the co-indexation between the overt embedded pronoun *o (s/he)* and DP matrix subject is discourse-bound in Turkish. Contrary to what previously claimed (see section 2.4.1.2. for further discussions), the current study asserts that the overt embedded subject in Turkish can be bound to an antecedent, by holding a contrastive topic reading. If not, it has a contrastive focus interpretation when the overt embedded subject has a disjoint reading, which refers to a third party in the discourse. Since this distinction is governed by the syntax-discourse interface, the score performances of the learner groups, even at the advanced proficiency level, seemed to fall behind that of the NS. In a similar way, the performances of the INT-DNS vs. INT-NNS tended to radically differ from that of the NS respectively as the results of the t-tests revealed (t=7.29, p= 0.0001; t=9.51; p= 0.0001).

As for the comparison among the learner groups themselves, no difference was found between the advanced speakers of the DNS and NNS languages (t=0.32, p=0.750). Similarly, the comparison of the intermediate speakers among themselves did not yield a statistically significant difference either (t=0.97, p=0.924) as in the case of previous intergroup comparisons. Over again, this finding supports the aforementioned claims as to the L1 influence on the acquisition of null and overt subjects. Concerning the data from the comparison between the advanced vs. intermediate DNS speakers, the difference was statistically significant (t=2.67, p=0.011). In a similar vein, a significant difference was also observed for the NNS speakers data (t=2.72, p=0.012). These findings suggest that the sensitivity to the constraints between the comparison of Con3 vs. Con4 increased based on the proficiency level, despite not attaining native like performance.

4.1.2.3.4. Intergroup Comparison of Con3 vs. Con4 for the OPCT

The findings for the intergroup comparisons of Con3 vs. Con4 are illustrated below in Table 16:

Table 16

Intergroup comparison of Con3 vs. Con4 for the OPCT

Groups	Con3 vs. Con4		
	t(f)	d.f.	*p*
ANOVA	17.38	93	0.014
ADV-DNS vs. NS	4.19	46	0.0001
ADV-NNS vs. NS	5.10	21	0.0001
INT-DNS vs. NS	6.30	20	0.0001
INT-NNS vs. NS	7.51	15	0.0001
ADV-DNS vs. ADV-NNS	1.57	29	0.126
ADV-DNS vs. INT-DNS	2.91	27	0.007
ADV-NNS vs. INT-NNS	1.98	23	0.060
INT-DNS vs. INT-NNS	0.63	24	0.534

ANOVA revealed a statistically significant difference across all groups (f=17.38, p=0.0001). Therefore, t-tests were carried out to decide which groups significantly differed as to the distinction between Con3 vs. Con4. To start with, the comparison of the score performances of the ADV-DNS and ADV-NNS with that of the NS led to statistically significant differences respectively (t=4.19, p=0.0001; t=5.10, p=0.0001). Correspondingly, the data obtained from the INT-DNS and INT-NNS when compared to NS also yielded statistically significant differences respectively (t=6.30 p=0.0001, t=7.51, p=0.0001), suggesting that no sensitivity was displayed regarding the difference when the antecedent is a referential DP across two types of embedded subject – either overt or null. As discussed before, the reason for this difference is based on the group means with regard to the Con4 data, where the learner groups have performed worse compared to the other conditions.

To the contrary, the data did not demonstrate statistically significant differences in terms of the comparison for the ADV-DNS vs. ADV-NNS (t=1.57, p=0.126) and the INT-DNS vs. INT-NNS (t=0.63, p=0.534), suggesting that no difference was found as to the parametric variation between different types of languages. Pertaining to the comparison for each learner group within itself, the mean score performance was statistically significant for the DNS group data (t=2.91, p=0.007) in contrast to the NNS group in which the data yielded a statistically insignificant difference (t=1.98,

p=0.060). Yet, as this difference is quite close to the confidence interval, the difference is not statistically strong.

4.1.3. Discussion of the Results for the Overt Pronoun Constraint Task

In this part, the results of the descriptive and three statistical analyses are brought together and discussed in the light of formal accounts that characterize the recent discussions with reference to the acquisition of null and overt subjects in Turkish.

As stated before, the aim of the OPCT is to understand the co-reference interpretations of the L2 acquirers between different types of subjects in the embedded and matrix clause. Since the OPC is claimed to be a universal feature of all null subject languages, the findings of this experiment, with different L2 groups, necessarily contribute to the recent discussions on the universality of the acquisition of formal features governing the use of null and overt subject. Hereby, the current study directly contributes to these on-going debates by obtaining data from two different L2 groups with different NSP typologies. Concerning the findings of the study, the descriptive and statistical analyses reveal that the OPC knowledge has been attained by the DNS and NNS L2 Turkish speakers at the advanced level of proficiency although native-like attainment has not been observed - even the native speakers have violated some OPC constraints.

With respect to the statistical analyses, the intergroup comparison across single conditions revealed rate differences compared to the performances of the NS, where statistical differences reside in Con2 and Con4. When the intermediate speakers data are taken into account, it seems that the intermediate speakers did not attain the syntax of null vs. overt subject distribution. Considering the intragroup comparisons, the only difference is found in the comparison between the comparison of Con3 vs. Con4. As for the intermediate speakers, there are rate differences as well in certain contexts. Similarly, the intergroup comparisons across the paired conditions revealed certain distinctions between the advanced groups and the NS concerning the comparisons of Con2 vs. Con4 and Con3 vs. Con4. For the intermediate speakers, all the pairs yielded distinctions.

Evidently, these results do not suggest a native-like performance, yet the descriptive data revealed that the advanced speakers of discourse null subject language speakers (ADV-DNS) performed

26.76 out of 32 times (83.5 % success) and the advanced speakers of non-null subject language speakers (ADV-NNS) performed 25.93 out of 32 times (81 % success) in all conditions.

Note that the NS scored 29.78 out of 32 times, which correspond to 93 % success. Therefore, it can be argued that advanced speakers of both groups attained the given co-reference relationships. Accordingly, the results of the task are compatible with the previous research on the OPC knowledge of L2 speakers (e.g. Kanno, 1997; Kanno, 1998; Perez-Leroux & Glass, 1999; Rothman, 2007; Rothman & Iverson, 2007; Rothman 2009). To recapitulate the findings, the results of the statistical and descriptive analysis provide us at least three line of discussions:

(i) despite some violations, the OPC knowledge has been attained by the advanced L2 groups

In the light of the aims of the study, in order to argue that the formal principles on the use of null vs. overt subject distinction is acquired, L2 speakers must display sensitivity to the OPC constraints. Regarding this, as discussed before, the interpretation of Con2 is of a great value to claim that the OPC knowledge is acquired and this data should also be supported by the data from the other three conditions. As it is the case for most OPC studies, this study claims that the OPC knowledge has been acquired by the speakers of different language groups acquiring L2 Turkish. This finding is not surprising since the OPC is a universal constraint which is not parameterized and the L2 learners can access to UG to acquire this formal regulation. Although there are statistical differences between the learner groups and the control group with respect to Con2 and Con4, hence yielding statistical differences pertaining to comparisons involving these conditions, this might be attributed to performance factors, which is discussed at length in overall discussion section.

From another angle, it is not surprising to expect some target-deviant results since the contexts have been given as an additional variable on which the co-reference interpretations are based. Therefore, some participants might have failed to observe the role of context, holding misinterpretations. Second, the conditions assessing the knowledge of the OPC is multi-faceted in that each condition brings in a wide range of contributions and discussions to the current L2 debates. For example, in Con4, information structure (such as contrastive topic and focus) determines whether the overt embedded subject is bound to an antecedent or not.

Concerning the intermediate speakers of both groups, although they partly displayed early sensitivity to the syntactic constraints, as can be shown by their score performances in Con2 where no statistical difference was observed with the advanced speakers data, they displayed deficits in co-reference interpretation between subjects in the embedded and matrix clauses when their performances were compared with that of the control group.

(ii) L2 groups have performed non-native like in contrastive topic / focus environments

When the results are closely scrutinized it has become quite clear that the L2 group data radically deviated from target-like performance in environments when the embedded subject is overt subject o *(s/he)* in the context of referential DP antecedent. As discussed before, overt embedded subject can be bound to an antecedent to have a contrastive topic reading. If not, it holds a contrastive focus interpretation when it refers to a third party in the discourse. However, as the data revealed, the same difference was not observed when the embedded subject is null *in contra* DP antecedent (see the rate differences for Con3 vs. Con4). Even, the performances of the intermediate speakers did not statistically differ from the advanced speakers in the null embedded subject context (Con3). This suggests that discursive constraints might have an influence on the syntactic realization of subject distribution.

(iii) no difference among the L2 groups has been found

When the mean score distinctions among each proficiency level are taken into consideration, no difference has been observed among the groups despite a limited number of exceptions. This finding supports the UG-based account of the syntactic competence of null and overt subject distribution and goes along with the findings of other studies in the field.

The above discussions favor the position in which syntactic constraints can be reset. However, resetting the syntactic NSP does not render that the L2 speakers should perform completely native-like. It is also the case that individual variation is present during the interlanguage grammar development and there might be divergences in L2 grammar as reflected by the performances of the speakers.

4.2. RESULTS OF THE CONTEXTUALIZED GRAMMATICALITY JUDGEMENT TASK (CGJT)

In this part, the results of the CGJT are descriptively and statistically analyzed and then discussed. Accordingly, this task is framed to understand whether the use of null and overt subjects at the syntax-discourse interface is acquired or not. Given this, the task also allows us to compare the performances of the L2 Turkish speakers among themselves to understand which L2 Turkish group is more successful in acquiring the discursive constraints. By doing so, the task addresses how topic continuity-topic shift constructions are acquired by the L2 Turkish speakers.

4.2.1. Descriptive Analysis of the CGJT

As stated before, null subjects are allowed when they signal topic continuity in the sentence. In other words, if the referent of the subject has already been introduced into the discourse, there is no need to leave the subject overt pragmatically. However, overt subjects have to be employed when new referents are introduced or when they are contrasted with other referents in the discourse.

As stated before, each condition is scored for 6 points, corresponding to 24 in total. Considering this, the descriptive results of the CGJT can be seen in Table 17 below:

Table 17

Descriptive results of the CGJT

Groups	**Conditions**			
	Null/A	Overt/A	Null/Un	Overt/Un
NS	6	5.96	5.76	5.11
ADV-DNS	5.63	5.96	3.96	1.56
ADV-NNS	5.47	5.4	3.27	1.2
INT-DNS	5.73	5.47	2.47	0.8
INT-NNS	5.27	4.91	1.64	0.55

Null/A= acceptable null subject is used (Con1); **Overt/A=** acceptable overt subject is used (Con2); **Null/Un=** unacceptable null subject is used (Con3); **Overt/Un =**unacceptable overt subject is used (Con4); **NS=** native speakers, **ADV-DNS=** the advanced speakers of discourse null subject languages; **ADV-NNS=** the advanced speakers of non-null subject languages; **INT-DNS=** the intermediate speakers of discourse null subject languages; **INT-NNS=** the intermediate speakers of null subject languages.

The descriptive analysis is based on the following order. First, the performances of the L2 speakers have been compared among themselves across all conditions, which has been followed by the comparison of the means between the L2 speakers and the native speakers. Then, each language group has been compared among themselves.

As can be seen from the descriptive results, the data indicated the mean score performances for each condition concerning the discursive distribution of null and overt subjects. With respect to the performances of the L2 speakers among themselves, advanced speakers of discourse null subject languages (ADV-DNS) is slightly more successful than the advanced speakers of non-null subject languages (ADV-NNS) in score performances across all conditions (for Con1, ADV-DNS= 5.63, ADV-NNS= 5.47; for Con2, ADV-DNS= 5.96, ADV-NNS= 5.40; for Con3, ADV-DNS= 3.96, ADV-NNS= 3.27; for Con4; ADV-DNS= 1.56, ADV-NNS= 0.8). These results suggest that the ADV-DNS seems to be more sensitive to the null and overt subject distribution than the ADV-NNS which reside in the syntax-discourse interface.

Likewise, the intermediate speakers discourse null subject languages (INT-DNS) is slightly more successful than the intermediate non-null subject group (INT-DNS) across all conditions. (for Con1, INT-DNS= 5.73, INT-NNS= 5.27; for Con2, INT-DNS= 5.47, INT-NNS= 4.91; for Con3, INT-DNS= 2.47, INT-NNS= 1.64; for Con4; INT-DNS= 0.8, INT-NNS= 0.55). This can be taken as an indication of the fact that the INT-DNS is likely to be more sensitive to discursive distribution of null and overt subject use than the INT-NNS.

Concerning the performances between the native speakers (NS) and the advanced speakers of the two groups, the results indicated roughly the same scores concerning the context in which acceptable null and overt subjects are used; corresponding to Con1 and Con2 respectively (for Con1, ADV-DNS= 5.63, ADV-NNS= 5.47 ; NS= 6 out 6 times) and (for Con2, ADV-DNS= 5.96, ADV-NNS= 5.4 ; NS= 5.96 out 6 times;). This means that the advanced speakers accepted the permitted null and overt subject constructions as acceptable and did not correct these structures either by omitting or adding subjects. On the other hand, the performances considerably differed with respect to Con3 and Con4 which force the participants to correct unacceptable null and overt subject constructions (for Con3, ADV-DNS= 3.96, ADV-NNS= 3.27 ; NS= 5.76 out of 6 times) and (for Con4, ADV-DNS = 1.56, ADV-NNS= 1.2 ; NS= 5.11 out of 6 times). This means that the advanced speakers were not sensitive to the null and overt subject distribution when the

context required them to correct unacceptable constructions. This sensitivity became even worse when the context required them to correct unacceptable overt subject construction (Con4).

Interestingly, the performances of the intermediate speakers did not differ from the native speakers with respect to Con1 and Con2 as in the case of the advanced speakers (for Con1, INT-DNS= 5.73, INT-NNS= 5.27; NS= 6 out 6 times) and (for Con2, INT-DNS= 5.47, INT-NNS= 4.91; NS= 5.96 out 6 times). Yet, there was a dramatic difference concerning Con3 and Con4 respectively (for Con3, INT-DNS= 2.47, INT-NNS= 1.64 ; NS= 6 out 6 times) and (for Con4, INT-DNS= 0.8, INT-NNS= 0.55; NS= 5.96 out 6 times). As can be seen from the results, the mean differences with the NS became even dramatic considering the Con4 which involves unacceptable use of overt subject construction.

When the performances of the advanced groups are compared with the intermediate groups, no dramatic differences can be found concerning the Con1 and Con2 data respectively (for Con1, ADV-DNS= 5.63, INT-DNS= 5.73; ADV-NNS= 5.47, INT-NNS= 5.27 out 6 times) and (for Con2, ADV-DNS= 5.96, INT-DNS= 5.47 ; ADV-NNS= 5.4, INT-NNS= 4.91 out 6 times). On the other hand, the mean score performances differed with respect to Con3 and Con4 (for Con3, ADV-DNS= 3.96, INT-DNS= 2.47; ADV-NNS= 3.27, INT-NNS= 1.64 out 6 times) and (for Con4, ADV-DNS= 1.56, INT-DNS= 0.8; ADV-NNS= 1.2, INT-NNS= 0.55 out 6 times). These findings suggest a difference in attaining the unacceptable topic continuity-topic shift constructions concerning the given groups, which needs to be discussed with the findings from the statistical analyses.

4.2.2. Statistical Analysis of the CGJT

This part is divided into three sections in which the statistical analyses conducted on group comparisons across conditions are given.

4.2.2.1. Intergroup Comparison of Each Condition for the CGJT

As for the first statistical analysis on this part, groups have been compared against each other across single conditions. *ANOVA* has been conducted to compare the group means and if ANOVA yields a statistically significant result, it is followed by *two-sample two tests*. Following this, in order to better interpret the data, this part is further divided into four sub-sections, each

corresponding to analysis on intergroup comparison for each condition. The analysis has two folds. First, the performances of each learner group are compared against that of the NS. Then, the L2 speakers are compared among themselves.

4.2.2.1.1. Intergroup Comparison of Con1 for the CGJT

Con1 represents a context in which acceptable null subject is employed, hence a locus of topic continuity construction. Since the topic of the target sentence has already been established in the discourse, the use of null subject is pragmatically more appropriate. Regarding this, the results of the intergroup comparison of Con1 are displayed in Table 18 below:

Table 18

Intergroup comparison of Con1 for the CGJT

Groups	Con1		
	t(f)	d.f.	*p*
ANOVA	1.87	4	0.124

As can be seen above, ANOVA revealed no statistically significant difference among the groups (*f*=1.87 *p*=0.124). This means that there is no statistically significant difference for each paired group. Therefore, there is no need to carry out two-sample t-tests in order to understand group differences.

Taking this into account, it can be argued that the L2 speakers performed native like in the contexts involving acceptable use of null subject constructions. In other words, when null subject is required by the discourse, the L2 speakers interpret this as acceptable[19]. This can be observed in the following example:

Test Item 8

The context: Yarınki mezuniyet balosu şehrin dışındaki otelde yapılacak. Özge, Ali'nin arabasının bozulduğunu bilmediği için, Ali'nin onu yol üzerinden almasını istedi. Ali ise durumu açıklayıp taksiye bineceğini söyledi. (Tomorrow's graduation ball is going to be held in the hotel, out of town. Since Özge

[19] There were some participants who corrected a linguistic unit other than the use of subjects. For example, some of them corrected the use of conjunctions or tense of the sentence. For others, some of them corrected the sentence either by adding or deleting information, which did not influence the grammaticality of the sentence. Those answers were considered to be acceptable since they did not involve the use of subjects.

did not know that Ali's car broke down she asked Ali to pick her up on his way to the hotel. Ali, on the other hand, explained the situation and said he would get on a taxi).

(68) *Target sentence:* Ali arabasının bozulduğunu ve bu yüzden de taksiye bineceğini söyledi.

As (68) displays, the topic of the sentence is established in the first part of the compound sentence, which is *Ali*, therefore, there is no need to use it again in the second sentence. Concerning this, learner groups displayed sensitivity to this constraint; in other words, they did not correct the sentence by inserting an overt subject to the sentence.

4.2.2.1.2. Intergroup Comparison of Con2 for the CGJT

Con2 involves a context in which acceptable overt subject is employed. As the topic of the target sentence alters due to a new referent in the discourse, overt subject becomes necessary to signal topic shift. Concerning this, the intergroup comparison of Con2 can be seen below:

Table 19

Intergroup comparison of Con2 for the CGJT

Groups	Con2		
	t(f)	d.f.	*p*
ANOVA	4.67	93	0.002
ADV-DNS vs. NS	0.28	51	0.98
ADV-NNS vs. NS	1.82	14	0.89
INT-DNS vs. NS	1.60	14	0.13
INT-NNS vs. NS	2.53	10	0.03
ADV-DNS vs. ADV-NNS	2.44	14	0.90
ADV-DNS vs. INT-DNS	1.83	14	0.13
ADV-NNS vs. INT-NNS	0.98	24	0.34
INT-DNS vs. INT-NNS	1.10	24	0.28

As can be seen from the results, ANOVA indicated a statistically significant difference among the groups (f= 4.67, p=0.002), which has been followed by t-tests in order to determine the mean differences between two compared groups.

As for the comparison between the learner groups the native speakers, the results indicated no statistically significant differences across the comparison of the NS with the ADV-DNS and INT-DNS respectively (t=0.28, p= 0.98; t=1.60, p=0.13). These results suggest that the DNS speakers are sensitive to the context in which pragmatically regulated overt subject is employed. Concerning the comparison of the ADV-NNS with that of the NS, no statistically significant difference can be found again (t=1.82, p= 0.89), yet the performance of the INT-NNS statistically differed from that of the NS (t=2.53, p= 10). In fact, this is the only statistical difference pertaining to intergroup comparison for Con2. These results suggest that only the advanced NNS speakers had native like performance and the INT-NNS did not perform native like.

When the learner groups were compared among themselves, no statistically significant difference was found between the comparisons ADV-DNS vs. ADV-NNS (t=1.83, p=0.90) and INT-DNS vs. INT-NNS (t=1.10, p=0.28). These findings suggest no difference concerning the different groups of languages.

As for the comparison of the data from the ADV-DNS vs. INT-DNS, no statistically significant difference was observed as well (t=1.60, p=0.38). As for the comparison between the ADV-NNS vs. INT-NNS, no difference was found again (t=0.98, p=0.34). These findings necessarily indicate an early sensitivity to the constraints reflected in Con2, starting from the intermediate proficiency level.

Overall, with the exception of the comparison between the INT-NNS vs. NS, the L2 speakers, seemed to attain the discursive constraints represented in Con2 as in the case of Con1. This means that when permissible topic shift construction is presented to them, they recognize it as an acceptable construction and do not try to omit the overt subject. This can be seen in the following example:

Test Item 5

The context: Bu yaz arkadaşlarımla birlikte Antalya'daki yaz kampına gitmeyi çok istediğimi aileme söyledim. Ailem de yurtdışı tatiline benimle birlikte gitmek istediklerini söyledi. Sonunda onları ikna etmeyi başardım. (I told my parents that I was longing to go to a summer camp in Antalya with my friends. But my family told me that they wanted to go on holiday abroad with me. At last I was able to convince them).

(69) *Target sentence*: Onlar tatile yurtdışına gidecekler ben de arkadaşlarımla Antalya'daki yaz kampına gideceğim.

The sentence above established the topic in the first clause with *onlar (they)*. Since a new referent is introduced into the discourse with the pronoun *ben (I),* the use of overt subject becomes pragmatically necessary in the second clause.

4.2.2.1.3. Intergroup Comparison of Con3 for the CGJT

Con3 involves a context where the sentence includes an unacceptable null subject. In this pragmatically anomalous sentence, overt subject should have been used because of the topic shift. That is to say, the subject position has to be marked overtly as the structure signals the change in topic. Regarding this, participants were expected to correct the use of null subject with an overt subject. The intergroup comparison of Con3 can be seen below.

Table 20

Intergroup comparison of Con3 for the CGJT

Groups	Con3		
	t(f)	d.f.	*p*
ANOVA	28	93	0.0001
ADV-DNS vs. NS	5.79	36	0.0001
ADV-NNS vs. NS	4.75	16	0.0001
INT-DNS vs. NS	12.30	22	0.0001
INT-NNS vs. NS	11.4	13	0.0001
ADV-DNS vs. ADV-NNS	1.30	40	0.25
ADV-DNS vs. INT-DNS	3.55	40	0.01
ADV-NNS vs. INT-NNS	2.67	29	0.01
INT-DNS vs. INT-NNS	2.10	24	0.048

Considering the results, ANOVA indicated a statistically significant difference among the groups (f= 28, p=0.0001), which was followed by t-tests to statistically determine the mean differences between the two compared groups.

Concerning the comparison between the learner groups and the NS, all the comparisons indicated statistically significant differences (ADV-DNS vs. NS, t=5.79, p=0.0001; ADV-NNS vs. NS, t=4.75, p=0.001; INT-DNS vs. NS, t=12.30, p=0.001; INT-NNS vs. NS, t=11.4, p=0.001). These results suggest that both groups of speakers – advanced and intermediate – did not attain the constraint represented in Con3. This means that the L2 speakers did not fully acquire the distribution of overt subject use in contexts where the topic shifts. This can be explained in the following example:

Test Item 6

The context: Sınavlara çok çalışmama rağmen ben hep düşük not alıyorum. Geçen hafta, Ebru, Kayhan ve ben Tarih sınavına kütüphanede beraber çalıştık. Ancak ben yine onlardan çok düşük not aldım. (I always get low marks even though I study a lot for the exams. Last week, Ebru, Kayhan, and I studied for the History exam together in the library. Still, I got much lower mark than them).

(70) *Target sentence:* Ben sınavdan çok düşük not aldım ama daha yüksek not aldılar.

The above sentence is pragmatically unacceptable on the grounds that the topic-shift in the second part of the compound sentence, which carries new information, is not marked overtly. Given this, the topic is established with the pronoun *ben (I).* However, in the second clause, a new referent is introduced. Since this shift in topic needs to be marked overtly, this yields the sentence pragmatically unacceptable. Yet, the results suggest that the L2 speakers were not sensitive to this constraint.

When the learner groups were compared among each proficiency level – ADV-DNS vs. ADV-NNS and INT-DNS vs. INT-NNS – the findings from the advanced groups did not yield a statistically significant difference (t=1.30, p=0.25). Concerning the comparison among the intermediate groups, statistically significant difference is found (t=2.10, p=0.048). However, since the *p-value* is closer to the confidence interval, 0.05, it did not indicate a very strong evidence. Overall, this finding suggests no difference among the DNS and NNS speakers. That is to say, different language groups did not necessarily indicate a difference in the results.

Considering the comparison between each learner group, the results yielded statistically significant differences between the comparison ADV-DNS vs. INT-DNS (t=3.55, p=0.01) and ADV-NNS vs. INT-NNS (t=2.67, p=0.01). This indicates that the sensitivity to the distribution

of overt subject use increased in the interlanguage grammar development, yet it did not reach a native like level at the advanced proficiency level.

4.2.2.1.4. Intergroup Comparison of Con4 for the CGJT

In Condition 4 (Con4), the use of an overt subject in the target sentence renders the sentence pragmatically anomalous since the topic of the sentence does not alter. Therefore, the participants were expected to correct the use of overt subject by omitting it. With respect to this, the intergroup comparison of Con4 can be seen below:

Table 21

Intergroup comparison of Con4 for the CGJT

Groups	Con4		
	t(f)	d.f.	*p*
ANOVA	38.6	93	0.0001
ADV-DNS vs. NS	8.20	51	0.0001
ADV-NNS vs. NS	9.50	39	0.0001
INT-DNS vs. NS	9.40	39	0.0001
INT-NNS vs. NS	10.10	35	0.0001
ADV-DNS vs. ADV-NNS	0.72	40	0.41
ADV-DNS vs. INT-DNS	1.20	40	0.24
ADV-NNS vs. INT-NNS	1.76	24	0.09
INT-DNS vs. INT-NNS	0.85	24	0.40

Considering the results, ANOVA revealed a statistically significant difference across the groups (f=38.6, p=0.0001). Therefore, t-tests were carried out to understand which groups statistically differ in the mean scores.

The comparison of the learner groups with that of the NS yielded dramatic differences in terms of correcting unacceptable overt subject construction (ADV-DNS vs. NS, t=8.20, p=0.0001; ADV-NNS vs. NS, t=9.50, p=0.001; INT-DNS vs. NS, t=9.40, p=0.001; INT-NNS vs. NS, t=10.10, p=0.001). As can be seen from the *t-values*, these differences among the groups are even greater than the score differences represented in Con3, which requires correcting an unacceptable null subject construction. This means that the L2 speakers were less successful in Con4 than

Con3. Concerning this, it can be argued that the learner groups did not attain the constraints governing the distribution of null subject use, which indicates that they are likely to employ overt subjects irrespective of the pragmatic conditions. This can be explained in the following example:

Test Item 12

The context: Kemal yeni girdiği işte çok uzun saatlere kadar çalıştığı için mutsuz ve çok az para kazanıyor. Arkadaşları her Cuma onu dışarıya davet ediyor ancak o gitmek istemiyor. (Because he works long hours at his new job Kemal is unhappy and he does not earn very much money. His friends invite him out every Friday but he does not want to go out).

(71) *Target sentence:* Kemal çok para kazanmıyor ve o arkadaşlarıyla dışarı çıkmak istemiyor.

The topic of the target sentence is *Kemal* in the first part of the compound sentence. The same referent, *Kemal*, is referred again in the second clause with the pronoun *o (he)*. Therefore, there is no need to use an overt pronoun to refer to him again. However, the advanced and intermediate L2 speakers of both groups of speakers tend to presume that the use of overt subject is pragmatically acceptable in these constructions.

As for the comparison among each proficiency level, the findings from the advanced and intermediate groups did not yield statistically significant differences respectively (t=0.72, p=0.41; t=0.85, p=0.40). As in the case of intergroup comparison for Con3, this finding does not indicate a difference between the DNS and NNS speakers concerning the unacceptable overt subject constructions.

Given the the comparison between each learner group, unlike the intergroup comparison for Con3, the results did not yield statistically significant differences as for the comparison ADV-DNS vs. INT-DNS (t=1.20, p=0.24) and ADV-NNS vs. INT-NNS (t=1.76, p=0.09). This finding reveals that the sensitivity to the distribution of overt subject use which is given inappropriately did not increase during the interlanguage grammar development.

4.2.2.2. Intragroup Comparison between Different Paired Conditions for the CGJT

The second analysis has been carried out to understand how the score performance of each group differs across paired two conditions. The selected paired contexts are Con1 vs. Con2, Con2 vs.

Con3, Con2 vs. Con4, Con1 vs. Con4, Con1 vs. Con3, and finally Con3 vs. Con4. Some pairs have been selected to compare the interpretation of acceptable overt subjects in the context of their overuse and underuse. The relevant pairs are Con2 (acceptable overt subject) vs. Con3 (underuse of overt subject) and Con2 (acceptable overt subject) vs. Con4. (overuse of overt subject). Other pairs compare the acceptability of null subjects in the context of their overuse and underuse. The relevant pairs are Con1 (acceptable null subject) vs. Con4 (underuse of null subject) and Con1 (acceptable null subject) vs. Con3 (overuse of null subject. As for the two other pairs, Con1 (acceptable null subject) vs. Con2 (acceptable overt subject) compare the acceptability of overt and null subjects whereas Con3 (unacceptable null subject) vs. Con4 (unacceptable overt subject) compare the unacceptability of overt and null subjects.

The intragroup comparison between different paired conditions are given in Table 22 below.

Table 22

Intragroup comparison between different paired conditions for the CGJT

	Con1 vs. Con2			Con2 vs. Con3			Con2 vs. Con4			Con1 vs. Con4			Con1 vs. Con3			Con3 vs. Con4		
Groups	*t(f)*	d.f.	*p*	*t(f)*	d.f.	*p*	*t(f)*	d.f.	*p*	*t(f)*	d.f.	*p*	*t(f)*	d.f.	*p*	*t(f)*	d.f.	*p*
NS	1.00	25	0.33	1.41	25	0.17	3.35	25	0.03	3.23	25	0.003	1.80	25	0.083	2.46	25	0.021
ADV-DNS	1.98	26	0.059	7.08	26	0.0001	13	26	0.001	10.80	26	0.0001	5.44	26	0.0001	6.56	26	0.0001
ADV-NNS	0.19	14	0.85	4.07	14	0.001	14.19	14	0.001	14.21	14	0.0001	4.32	14	0.0001	3.33	14	0.005
INT-DNS	0.70	14	0.50	9.72	14	0.0001	12.04	14	0.0001	12.22	14	0.0001	10.88	14	0.0001	3.83	14	0.002
INT-NNS	0.69	10	0.50	9.83	10	0.0001	9.23	10	0.0001	12.33	10	0.0001	9.38	10	0.0001	2.63	10	0.025

As for the statistical analysis, *paired-sample two tests* were carried out. This test was used to compare two dependent pairs, in that case *paired conditions*, across five groups.

Comparison is based on the following order: For each paired condition, differences in the means are discussed in relation to five groups.

As indicated above, Con1 vs. Con2 involves acceptable answers in the context of null and overt subjects. Therefore, it compares the acceptable topic continuity and topic shift constructions.

When the findings are closely scrutinized, no statistically significant difference was found among the learner groups and the native speakers. Therefore, this finding hints that the participants attained the distinction between null and overt subject constructions which are given acceptable.

Concerning the comparison of the acceptable overt subject constructions in the context of their underuse and overuse the pairs Con2 vs. Con3 have been selected. Both conditions involve overt subject constructions, yet the target sentence that the Con2 renders is acceptable whereas it is unacceptable in Con3 because of the use of a null subject in place of an overt one (underuse of overt subject). Therefore, this pair questions whether the sensitivity to acceptable overt subject vs. its underuse differ across the groups. In other words, it compares the acceptable and unacceptable topic shift constructions. Considering this, no statistically significant difference is found in the NS data (t=1.41, p=0.17). Contrary to this, the mean differences of the all learner groups yielded statistically significant differences. (ADV-DNS, t=7.08, p=0.001; ADV-NNS, t=4.07, p=0.001; INT-DNS t=9.72, p=0.0001; INT-NNS, t=9.83, p=0.17. This means that the sensitivity to the contexts (either acceptable or not) in which overt subjects are questioned differs across all the groups irrespective of the different language groups or proficiency levels.

With respect to Con2 vs. Con4, Con2 represents the context where an acceptable overt subject is used whereas Con4 represents the context in which overt subject is overused. Accordingly, it compares the acceptable topic shift and unacceptable topic continuity constructions. As for the results, the mean score performances of the all learner groups resulted in statistically significant differences. (ADV-DNS, t=13, p=0.001; ADV-NNS, t=14.19, p=0.001; INT-DNS t=12.04, p=0.0001; INT-NNS, t=9.23, p=0.0001). This is also the case with the NS data (t=3.35, p=0.03). This finding suggests that the distinction between acceptable overt subject use and its overuse has not been attained by all L2 speakers.

Overall, it can be argued that the interpretation of the acceptable overt subject in the context of its underuse and overuse respectively has not been acquired by the L2 Turkish speakers.

Regarding the comparison of acceptable null subject constructions in the context of their underuse and overuse, both of the pairs Con1 vs. Con4 present null subject constructions. However, the target sentences in which they are questioned have been given acceptable in Con1 and unacceptable in Con4 where an overt subject is employed instead of a null subject (underuse of null subject). Therefore, this pair compares the acceptable and unacceptable topic continuity

constructions. With respect to this, the comparison between Con1 vs. Con4 across each group allows us to understand whether the score performances of each group differ considering the given pairs. Taking this into account, as for the NS, the results surprisingly yielded a statistically significant difference (t=3.23, p=0.003). When the mean scores are closely scrutinized, it can be argued that the reason for this difference can be attributed to high score performance of the NS in Con1. The descriptive data reveal that the NS performed 100 % success in Con1 whereas they performed 85% success in Con4. Therefore, this distinction yielded a statistically significant difference. As for the learner groups, the data indicated statistically significant differences across all learner groups (ADV-DNS, t=10.80, p=0.0001; ADV-NNS, t=14.21, p=0.0001; INT-DNS t=12.22, p=0.0001; INT-NNS, t=12.33, p=0.001). This means that the sensitivity to the contexts in which acceptable and unacceptable null subjects are questioned differs across all the groups irrespective of different language groups or proficiency levels.

As for the comparison for Con1 vs. Con3, this pair represents the contexts in which acceptable null subject is used (Con1) and null subject is overused (Con3). In other words, Con1 requires a null subject in the answer; on the other hand, Con3 requires an overt subject in the answer yet unacceptable null subject is employed in place of an overt one. Accordingly, this pairs questions acceptable topic continuity and unacceptable topic shift constructions. Considering the finding from this pair, no statistical difference was observed in the NS data (t=1.80, p=0.83). However, there are statistically significant differences among the learner groups (ADV-DNS, t=5.44, p=0.0001; ADV-NNS, t=4.32, p=0.0001; INT-DNS t=10.88, p=0.0001; INT-NNS, t=9.38, p=0.0001. This finding necessarily indicates that the distinction between the acceptable null subject use and its overuse has not been acquired by the L2 speakers.

Overall, one can argue that the interpretation of the L2 speakers on the acceptability of null subjects in the context of their underuse and overuse in unacceptable target sentences has not been attained.

As for the final analysis, the selected pairs are Con3 vs. Con4, which are represented with unacceptable null subject use (underuse of overt subject) in topic shift contexts and unacceptable overt subject use (overuse of overt subject) in topic continuity contexts. Therefore, the aim is to understand whether the performances of each group differ depending on the presence of null and overt subject as represented with pragmatically anomalous constructions. In other words, this pair compares the unacceptable topic continuity and topic shift constructions. Regarding this, the data

from the NS yielded a statistically significant difference (t=2.46, p=0.021). As discussed above, the reason for this difference can be found in the descriptive data. The data indicate that the NS performed 5.76 out of 6 times corresponding to 96 % success, whereas they performed 5.11 out of 6 times corresponding to 85 % success. Second, the reason for the low score performance of the NS in Con4 can be attributed to the fact that violations of overt subject constructions, as represented in Con3, are more dramatic regarding the grammaticality of the sentence whereas the use of overt subject in null subject constructions is merely pragmatically incorrect or redundant. Therefore, some native speakers might simply have regarded redundant null subject constructions as acceptable.

Considering all learner groups, the findings gave rise to statistically significant differences (ADV-DNS, t=6.56, p=0.0001; ADV-NNS, t=3.33, p=0.005; INT-DNS t=3.83, p=0.002; INT-NNS, t=2.63, p=0.025). Regarding these results, one point needs to be brought forward. The means of the groups did not statistically differ from each other even though each group represents different types of languages. Apart from this, even though the questioned pair involves unacceptable constructions, L2 learners were slightly more successful in Con3, where overt subject is required pragmatically, which is absent in the target sentence. This might indicate that the absence of new information in the discourse is more prominent compared to redundant use of overt subjects in the discourse.

4.2.2.3. Intergroup Comparison between Different Paired Conditions for the CGJT

This part compares the groups among each other across the paired conditions (Con1 vs. Con2; Con2 vs. Con3; Con2 vs. Con4; Con1 vs. Con4; Con1 vs. Con3; Con3 vs. Con4) and questions whether the differences explored in intragroup comparison above yield statistically significant differences when the groups are compared against each other. In line with this purpose, *ANOVA* has been carried out to understand whether the difference among the groups is statistically significant or not. If so, *two-sample t-tests* have been conducted in order to understand which of the two groups statistically differed.

The analysis is made on the following order: First, the data from the different proficiency levels in the learner groups and the native speakers (NS) data have been compared between each other. This is followed by the comparison across the learner groups.

4.2.2.3.1. Intergroup Comparison of Con1 vs. Con2 for the CGJT

Con1 and Con2 present acceptable null and overt subject constructions. The results for intergroup comparison between Con1 vs. Con2 can be displayed in Table 23 below:

Table 23

Intergroup comparison of Con1 vs. Con2 for the CGJT

Groups	Con1 vs. Con2		
	t(f)	d.f.	*p*
ANOVA	4.82	93	0.001
ADV-DNS vs. NS	1.64	28	0.11
ADV-NNS vs. NS	2.57	14	0.22
INT-DNS vs. NS	2.31	14	0.36
INT-NNS vs. NS	2.82	10	0.18
ADV-DNS vs. ADV-NNS	1.68	40	0.10
ADV-DNS vs. INT-DNS	1.02	40	0.31
ADV-NNS vs. INT-NNS	0.94	24	0.35
INT-DNS vs. INT-NNS	1.55	24	0.13

As ANOVA revealed, the paired comparison of Con1 vs. Con2 across the groups yielded a statistically significant difference (f=4.82, p=0.001). Thus, t-tests were conducted to figure out the mean differences between the given two groups.

When the mean score performances between the L2 groups and the native speakers (NS) were compared, the data from the comparison of ADV-DNS vs. NS and ADV-NNS vs. NS data did not yield statistically significant differences respectively (t=1.64, p=0.11; t=2.57, p=0.22). Further, the performances of the intermediate speakers did not statistically differ from that of the NS respectively (t=2.31, p=0.36; t=2.82, p=0.18).

When the learner groups are compared among each other, no difference was found between the comparison of ADV-DNS vs. ADV-NNS (t=1.68, p=0.10). In a similar vein, the INT-DNS vs. INT-NNS data did not yield a statistically significant difference either (t=1.55, p=0.13). Once more, this finding suggests that, in a context where the discursive constraints on the use of null and overt subject are given acceptable, the performances of the different language groups did not differ statistically. From another angle, when the DNS speakers were compared among each other,

no statistically significant difference was found (t=1.02, p=0.31). By the same token, as for the NNS speakers no statistically significant difference was found either (t=0.94, p=0.35).

The results from the comparison between Con1 vs. Con2 found that no difference occurred between the groups. Although ANOVA revealed a difference between the groups, this difference has not been taken as statistically significant across the paired groups considering the Levene's test for homogeneity of variances.

4.2.2.3.2. Intergroup Comparison of Con2 vs. Con3 for the CGJT

Table 24 below displays the intergroup comparison for Con2 vs. Con3:

Table 24

Intergroup comparison of Con2 vs. Con3 for the CGJT

Groups	Con2 vs. Con3		
	t(f)	d.f.	*p*
ANOVA	24.12	93	0.0001
ADV-DNS vs. NS	5.64	36	0.0001
ADV-NNS vs. NS	4.55	15	0.0003
INT-DNS vs. NS	8.07	16	0.0001
INT-NNS vs. NS	7.50	11	0.0001
ADV-DNS vs. ADV-NNS	2.01	40	0.051
ADV-DNS vs. INT-DNS	3.86	40	0.001
ADV-NNS vs. INT-NNS	2.19	24	0.03
INT-DNS vs. INT-NNS	1.77	24	0.08

ANOVA demonstrated a statistically significant difference across all groups (f=24.12, p=0.0001). Therefore, two-tests were carried out to determine the difference between the two groups.

With respect to the comparison of the data between the learners groups and the NS, the results from the comparison of ADV-DNS vs. NS and ADV-NNS vs. NS yielded statistically significant differences respectively (t=5.64, p=0.0001; t=4.55, p=0.0003). In a similar vein, the data fetched from the comparison across the groups INT-DNS vs. NS and INT-NNS vs. NS elicited statistically significant differences respectively as well (t=8.07, p=0.0001; t=7.50, p=0.0001). These results suggest that, in contexts where the use of overt subject is given acceptable and

unacceptable in topic shift constructions, the performances of the learners groups compared to that of the NS statistically differed. This obviously indicates that the distinction between the acceptable or unacceptable use of overt subject distribution was not attained by the learner groups.

Concerning the comparison among the learner groups themselves, the comparison between the groups ADV-DNS vs. ADV-NNS did not yield a statistically significant difference (t=2.01, p=0.51) as in the case of intermediate speakers, where no statistically significant difference was found as well (t=1.77, p=0.08). This means that the distinction between Con2 vs. Con3 did not make a difference for different language groups. As for the comparison within each learner group, the data from the comparison for ADV-DNS vs. INT-DNS and ADV-NNS vs. INT-NNS resulted in statistically significant differences respectively (t=3.86, p=0.001; t=2.19, p=0.03). This finding points out that the sensitivity to discern acceptable and unacceptable distribution of overt subject use in Con2 vs. Con3 increased based on the proficiency level.

4.2.2.3.3. Intergroup Comparison of Con2 vs. Con4 for the CGJT

The intergroup comparison for Con2 vs. Con4 data can be seen below:

Table 25

Intergroup comparison for Con2 vs. Con4

Groups	Con2 vs. Con4		
	t(f)	d.f.	*p*
ANOVA	31.93	93	0.0001
ADV-DNS vs. NS	7.91	51	0.0001
ADV-NNS vs. NS	8.32	39	0.0001
INT-DNS vs. NS	8.31	39	0.0001
INT-NNS vs. NS	10.05	35	0.0001
ADV-DNS vs. ADV-NNS	1.60	40	0.11
ADV-DNS vs. INT-DNS	1.87	40	0.06
ADV-NNS vs. INT-NNS	1.62	24	0.11
INT-DNS vs. INT-NNS	1.26	24	0.22

ANOVA yielded a statistically significant difference across all groups (f=31.93, p=0.0001) which was followed by two-tests to determine the difference between the given two groups.

The comparison between the advanced groups and the NS yielded statistically significant differences respectively (ADV-DNS vs. NS; t=7.91, p=0.0001; ADV-NNS vs. NS; t=8.32, p=0.0001). As can be anticipated, the comparison between the intermediate groups and the NS also produced statistically significant distinctions respectively (INT-DNS vs. NS; t=8.31, p=0.0001; INT-NNS vs. NS; t=10.05, p=0.0001). These findings necessarily indicate that L2 speakers had deficits in interpreting acceptable overt subject in the context of its underuse. In other words, the L2 speakers did not perform native like when acceptable topic shift and unacceptable topic continuity constructions were compared.

Concerning the comparison of the data for each proficiency level, the comparison between the groups ADV-DNS vs. ADV-NNS did not yield a statistically significant difference (t=1.60, p=0.11). As for the intermediate speakers, no statistically significant difference was found as well (t=1.26, p=0.22). Clearly, this finding did not indicate any difference between different language groups. When the data from the DNS speakers and the NNS speakers were compared within each group, the relevant comparisons for the ADV-DNS vs. INT-DNS and ADV-NNS vs. INT-NNS data did not result in statistically significant differences (t=1.87, p=0.06; t=1.62, p=0.11).

4.2.2.3.4. Intergroup Comparison of Con1 vs. Con4 for the CGJT

The results of the intergroup comparison of Con1 vs. Con4 can be seen in Table 26 below:

Table 26

Intergroup comparison of Con1 vs. Con4 for the CGJT

Groups	Con1 vs. Con4		
	t(f)	*d.f.*	*p*
ANOVA	31.54	93	0.001
ADV-DNS vs. NS	8.17	46	0.0001
ADV-NNS vs. NS	9.03	39	0.0001
INT-DNS vs. NS	9.58	39	0.0001
INT-NNS vs. NS	9.60	35	0.0001
ADV-DNS vs. ADV-NNS	0.83	40	0.41
ADV-DNS vs. INT-DNS	0.86	40	0.39
ADV-NNS vs. INT-NNS	1.21	14	0.23
INT-DNS vs. INT-NNS	1.29	24	0.20

Based on ANOVA results, the findings indicated a statistically significant difference with regard to the group data (f=31.54, p=0.001). Accordingly, t-tests were conducted to figure out the mean differences between two groups.

Regarding the comparison between the learner groups and the NS data, the mean score performances of the comparison between the groups ADV-DNS vs. NS and ADV-NNS vs. NS yielded statistically significant differences respectively (t=8.17, p=0.0001; t=9.03, p=0.0001). Similarly, the data obtained from the comparison across the groups INT-DNS vs. NS and INT-NNS vs. NS resulted in statistically significant differences respectively (t=9.58, p=0.0001; t=9.60, p=0.0001). These results suggest that, in contexts where the use of null subject is given either acceptable and unacceptable in topic continuity constructions, the results statistically differed. This is an indication of the fact that the distinction between acceptable and unacceptable use of the null subject distribution was not attained by the learner groups.

As for the comparison among the learner groups themselves, the comparison between the groups ADV-DNS vs. ADV-NNS did not result in a statistically significant difference (t=0.83, p=0.41). Similarly, the results obtained from the groups INT-DNS vs. INT NNS did not differ as well (t=1.29, p=0.20). Once again, this finding revealed that the given paired conditions did not make a difference for different language groups. Concerning the data from the advanced and intermediate DNS speakers itself, the difference was not statistically significant (t=0.86, p=0.39). In a similar vein, no significant difference was also observed for the advanced and intermediate NNS data as well (t=1.21, p=0.23). Unlike the comparison between Con2 vs. Con3, which questions the distribution of overt subject, the interlanguage grammar of both groups of languages did not develop considering the distribution of null subject.

4.2.2.3.5. Intergroup Comparison of Con1 vs. Con3 for the CGJT

Concerning the intergroup comparison of Con1 vs. Con3, the results can be seen in Table 27 below:

Table 27

Intergroup comparison of Con1 vs. Con3 for the CGJT

Groups	Con1 vs. Con3		
	t(f)	*d.f.*	*p*
ANOVA	21.26	93	0.001
ADV-DNS vs. NS	5.45	32	0.01
ADV-NNS vs. NS	4.85	15	0.01
INT-DNS vs. NS	11.07	19	0.001
INT-NNS vs. NS	7.46	11	0.001
ADV-DNS vs. ADV-NNS	1.26	40	0.21
ADV-DNS vs. INT-DNS	2.90	40	0.06
ADV-NNS vs. INT-NNS	2.02	24	0.054
INT-DNS vs. INT-NNS	2.00	24	0.057

ANOVA indicated a statistically significant difference concerning the group data (f=21.26, p=0.001), which was followed by t-tests to determine the mean differences between two groups.

When the data from the learner groups were compared with the control group data, the relevant comparisons, ADV-DNS vs. NS and ADV-NNS vs. NS, yielded statistically significant differences respectively (t=5.45, p=0.01; t=4,85 p=0.01). In the same vein, the data fetched from the comparisons INT-DNS vs. NS and INT-NNS vs. NS resulted in statistically significant differences respectively (t=11.07, p=0.001; t=7.46, p=0.001). This finding indicates that when the context involving acceptable null subject use is compared with the context which has overuse of null subject, the L2 speakers did not attain native-like achievement.

Concerning the comparison of the data among the learner groups, the comparison between the advanced speakers of both groups did not yield a statistically significant difference (t=1.26, p=0.21). Likewise, the comparison of the intermediate speakers data did not statistically differ as well (t=2.00, p=0.057). As in the case of other paired comparisons, this finding supports the previous accounts on the same performance displayed by different L2 groups.

When each learner group data is compared within the group itself, the difference was not statistically significant for the DNS speakers (t=2.90, p=0.06). Likewise, the data from the NNS speakers did not result in statistically significant difference (t=2.02, p=0.054), meaning that

interlanguage grammar development does not hold across the paired condition Con1 vs. Con3. Yet, as difference is just above the *p-value*, the difference is not strong statistically.

4.2.2.3.6. Intergroup Comparison of Con3 vs. Con4 for the CGJT

The results for the intergroup comparison of Con3 vs. Con4 are given in Table 28 below:

Table 28

Intergroup comparison of Con3 vs.Con4 for the CGJT

Groups	Con3 vs. Con4		
	t(f)	*d.f.*	*p*
ANOVA	56.03	93	0.001
ADV-DNS vs. NS	8.83	51	0.0001
ADV-NNS vs. NS	10.83	39	0.0001
INT-DNS vs. NS	13.60	39	0.0001
INT-NNS vs. NS	14.90	35	0.0001
ADV-DNS vs. ADV-NNS	1.35	40	0.18
ADV-DNS vs. INT-DNS	3.20	24	0.03
ADV-NNS vs. INT-NNS	3.20	24	0.04
INT-DNS vs. INT-NNS	1.95	24	0.063

The results for ANOVA indicated a statistically significant difference with regard to the group data (f=56.03, p=0.001). Accordingly, t-tests were conducted to figure out the mean differences between two groups.

When the learner groups and the native speakers were compared among each other, the results for the ADV-DNS vs. NS and ADV-NNS vs. NS gave rise to statistically significant differences respectively (t=8.83, p=0.0001; t=10.83, p=0.0001). Similar to this, the results for the INT-DNS vs. NS and INT-NNS vs. NS resulted in statistically significant differences respectively as well (t=13.60, p=0.0001; t=14.90, p=0.0001). Considering these results, it can be asserted that the learner groups are not sensitive to distribution of null and overt subjects when they are given unacceptable in the target sentences.

Considering the comparison among the learner groups, as in the case of previous comparisons on this part, the comparison between the groups ADV-DNS vs. ADV-NNS and INT-DNS vs. INT-NNS did not result in statistically significant differences respectively (t=1.35, p=0.18; t=1.95, p=0.063).

Finally, the data from the comparison for ADV-DNS vs. INT-DNS and ADV-NNS vs. INT-NNS resulted in statistically significant differences respectively (t=3.20, p=0.03; t=3.20, p=0.04). This finding implies a possible interlanguage grammar development displayed by the advanced speakers in contexts where the unacceptable null and overt subject constructions are present.

4.2.3. Discussion of the Results for the Contextualized Grammaticality Judgement Task

In this part, the results of the descriptive and three statistical analyses are gathered and discussed in order to understand whether the interpretation of L2 speakers on the discursive constraints regarding the use of null and overt subject distribution are acquired or not. As stated before, null and overt subject distinction in null subject languages are governed by certain pragmatic rules, hence it is the locus of syntax-discourse interface. Therefore, the discussion of the results for the CGJT will indicate whether the Full Transfer / Full Access Hypothesis (FTFA) or the Interface Hypothesis (IH) holds in L2 Turkish with respect to the syntax-discourse interface. By doing so, differences, if any, between the discourse null-subject (DNS) group and non-null subject (NNS) group, which represent different types of languages regarding the NSP typology, are questioned to understand which of the above hypotheses is valid for the given group. Moreover, the discussion will indicate how topic continuity-topic shift realization is acquired.

Bearing the above points in mind, if the L2 Turkish speakers have attained the use of null vs. overt subject distinction appropriately in contexts determined by the discursive constraints (if the statistical analysis demonstrate that no difference holds between the given group and the native speakers in the given conditions), the results will be interpreted as supporting the FTFA. Otherwise, the results will support the IH if L2 Turkish speakers have not acquired null vs. overt subject distribution at the syntax-discourse interface (if the statistical analysis reveal differences compared to the means of the native speakers).

As the findings from the CGJT revealed, the intergroup comparison across single conditions indicated that mean scores of both groups of L2 speakers differed from the performances of the NS across contexts which do not support null or overt subject. The intragroup comparisons also indicated differences in the given pairs: the acceptable use of overt subject vs. underuse of overt subject (Con2 vs. Con3) / overuse of overt subject (Con2 vs. Con4) and acceptable use of null subject vs. underuse of null subject (Con1 vs. Con4) / overuse of null subject (Con1 vs. Con3). Similarly, the intergroup comparisons across the above pairs also revealed distinctions between each learner group and the NS. Accordingly, these findings can be interpreted in favour of the IH since the pragmatics of subject distribution has not been attained by the L2 speakers.

Concerning the findings, the results of the statistical and descriptive analysis provide us at least three line of discussions:

(i) L2 speakers did not correct unacceptable topic continuity-topic shift constructions

When the findings are pondered, it can be argued that both groups of learners, irrespective of the proficiency level, performed native like in topic continuity-topic shift articulation which is given acceptable in the target sentences. In other words, in the contexts where there is no-topic shift and null subject is given appropriately, L2 speakers – advanced and intermediate speakers of both groups – construed them as pragmatically acceptable. That is, they did not insert overt subjects into the sentences which require null subjects (Con1). In the same vein, when the context requires an overt subject due to new information or contrast of reference, the same group of L2 Turkish speakers interpreted the use of overt subject as pragmatically acceptable as well (Con2). However, these findings are elusive; that is to say, these results would not alone hold that the L2 speakers have acquired the distinction between null vs. overt subject use since the L2 participants were given sentences with acceptable topic continuity and topic shift constructions and they did not attempt to correct them. Therefore, these findings need to be supported with the contexts where inappropriate topic continuity and topic shift constructions are perceived unacceptable and corrected by the very same L2 speakers.

Considering the above points, when the results from unacceptable topic continuity and topic shift constructions are pondered, the L2 speakers of the DNS and NNS speakers did not seem to attain a native like performance in perceiving these constructions inappropriate. That is to say, they did not correct the target sentences either by inserting an overt subject (Con3) or deleting the

redundant use of overt subject (Con4). As the data displayed, the statistical difference was even dramatic for the intermediate speakers when compared to the means of the native speakers. This result indicates that discursive constraints on the use null vs. overt subject cannot be fully acquired even at the advanced level. Therefore, as discussed previously, it can be concluded that the success of the L2 speakers in topic continuity and topic shift constructions which are given acceptable (Con1 and Con2) by no means indicate that they attained the appropriate use of this distinction. On the contrary, they tended to readily accept the constructions as pragmatically possible independent of the discursive regulations. Therefore, one can argue that null and overt subject distinction has not been acquired by the L2 Turkish speakers at the syntax-discourse interface.

(ii) L1 transfer is not operative at the syntax-discourse interface

A comparison of the interpretations of the advanced and intermediate DNS and NNS speakers revealed that although the DNS group scored better than the NNS group as can be seen in the descriptive data, the difference between these groups – both the advanced and intermediate – is not statistically significant. Therefore, it can be argued that the performances of the DNS speakers did not differ from the NNS group with respect to the use of null and overt subjects. Note that the L1s of the DNS speakers, Japanese and Korean, employ discursive constraints on the use of null vs. overt subject distribution unlike the L1s of the NNS speakers, English and German. Despite this, Japanese and Korean speakers did not transfer the discursive rules or categories in their interlanguage. Therefore, the claims made by the FTFA can be refuted, which stated that L1 transfer is possible. This finding supports Margaza and Bel (2006) who also claimed that L2 Spanish learners of Greek – both of which are null subject languages – did not attain the discursive rules governing the use of null and overt subject distribution, where no L1 transfer was observed.

(iii) L2 speakers were more successful in correcting unacceptable topic shift constructions

As for the topic continuity-topic shift distinction, the results revealed that both groups were slightly more successful with unacceptable topic shift constructions over unacceptable topic continuity constructions. That is to say, although they did not attain native like performance in both constructions, when unacceptable topic continuity (Con4) and topic shift (Con3) constructions are compared, they were more likely to be successful in contexts which required them to insert an overt subject in topic shift contexts (Con3). On the contrary, they did not attempt to correct the redundant use of overt subject in topic continuity contexts (Con4). This is also

evident in the native speakers data, which indicated that they were more successful in subjects in topic shift position compared to that of topic continuity. This might be related with the fact that topic shift might be more prominent in the discourse and can be more salient to perceive (Quesada & Blackwell, 2009). Additionally, marking overt subject seems more dramatic to violate in terms of information structure if the expected new information or contrast is not given. On the other hand, redundant use of overt subject in topic continuity contexts seems to be more violable pragmatically, though not acceptable.

Bearing this in mind, the findings can be interpreted in favor of the IH, indicating that discursive constraints on the use of null and overt subjects cannot be fully acquired even at the advanced proficiency level. Moreover, as there were no differences between different language groups, it can be argued that discursive properties of the native language cannot be transferred in L2 acquisition, which can be linked to a difficulty in acquiring null and overt subject distribution at the syntax-discourse interface.

4.3. RESULTS OF THE QUESTION-ANSWER TASK (QAT)

As for the final task of the study, the results of the QAT have been descriptively and statistically analyzed and then discussed. The QAT is employed to understand whether the L2 Turkish speakers can use null and overt subject distribution appropriately in the simple/root clause and complex embedded clause as answer to simple or complex wh-questions, where the questions are used to control the topic continuity-topic shift realization. By doing so, it aims to understand whether the subject position has an influence on how topic continuity and topic shift are realized respectively.

4.3.1. Descriptive Analysis of the QAT

The task is composed of four conditions. Each condition is represented with 4 question-answer pairs, where the participants were asked to indicate whether the answers to the questions are acceptable or not. The maximum point for a learner to get is 8 for each condition. For each condition, 2 test items have acceptable answers and 2 test items have unacceptable answers.

Note that as for the illustrated question-answer pairs, Con1 targets the embedded subject, in which the answer must include overt subject. On the contrary, Con2 targets the embedded object, hence

null subject must be used since new information is given in relation to object in the answer and the subject does not shift.

For the simple sentences with wh-questions, Con3 targets the subject in topic shift contexts, requiring overt subject in the answer. Contrary to this, Con3 targets the object, hence null subject must be employed as the subjects signals topic continuity.

Considering this, the descriptive results of the QAT can be seen in Table 29 below:

Table 29

Descriptive results of the QAT

Groups	**Conditions**			
	ES	EO	S	O
NS	8	7.07	8	7.53
ADV-DNS	7.11	4.81	7.22	4.74
ADV-NNS	7.13	4.73	6.53	4.26
INT-DNS	6.33	3.80	6.33	4.13
INT-NNS	5.54	4.18	6.09	4

ES= complex wh-question in which the embedded subject is questioned (Con1); **EO=** complex wh-question in which the embedded object is questioned (Con2); **S=** simple wh-question in which subject is questioned (Con3); **O =** simple wh-question in which object is questioned (Con4); **NS=** native speakers, **ADV-DNS=** the advanced speakers of discourse null subject languages; **ADV-NNS=** the advanced speakers of non-null subject languages; **INT-DNS=** the intermediate speakers of discourse null subject languages; **INT-NNS=** the intermediate speakers of null subject languages.

As in the case of the former descriptive analyses, the descriptive analysis of the QAT has two-folds. First, the performances of the L2 speakers have been compared among different groups across the conditions, which has been followed by the comparison of the means between the L2 speakers and native speakers. Then, each language group has been compared among themselves.

Concerning the performances of the L2 speakers among themselves, as for the advanced groups of speakers, the score performances of the advanced discourse null-subject speakers (ADV-DNS) and the advanced non-null subject speakers (ADV-NNS) did not seem to differ considerably (for Con1, ADV-DNS= 7.11, ADV-NNS= 7.13; for Con2, ADV-DNS= 4.81, ADV-NNS= 4.73; for Con3, ADV-DNS= 7.22, ADV-NNS= 6.53; for Con4; ADV-DNS= 4.74, ADV-NNS= 4.26).

In the same vein, concerning the intermediate speakers, the performances of the intermediate discourse null-subject speakers (INT-DNS) and intermediate non-null-subject speakers (INT-NNS) did not seem to vary greatly as well (for Con1, INT-DNS= 6.33, INT-NNS= 5.54; for Con2, INT-DNS= 3.80, INT-NNS= 4.18; for Con3, INT-DNS= 6.33, INT-NNS= 6.09; for Con4; INT-DNS= 4.13 INT-NNS= 4). These descriptive results suggest that, concerning the question-answer pairs, no dramatic difference is present between the discourse null subject (DNS) speakers and non-null subject (NNS) speakers. Another interesting finding is that both groups of speakers are more successful in question-answer pairs which ask about the subject of the clause (corresponding to Con1 and Con3 respectively).

As for the comparison between the advanced speakers of both groups and the native speakers (NS), the results indicated that the performances of the advanced speakers differed from that of the NS. However, this difference did not seem to be considerable as for the Con1 (for Con1, ADV-DNS= 7.11, ADV-NNS= 7.13; NS= 8 out of 8 times), and Con3 (for Con3, ADV-DNS= 7.22, ADV-NNS= 6.53; NS= 8 out of 6 times), which ask about the embedded and simple clause subject respectively, hence targeting subjects in topic shift contexts. With respect to the Con2 and Con4, which ask about the object of the sentence, the performances considerably differed (for Con2, ADV-DNS= 4.81, ADV-NNS= 4.73; NS= 7.07 out of 8 times), and (for Con4, ADV-DNS = 4.74, ADV-NNS= 4.26; NS= 7.53 out of 8 times). This means that the advanced speakers are more sensitive to structures where the subject carries the new information in the answer. The comparison between the intermediate speakers and the NS also yielded a considerable differences. Moreover, as in the case of the advanced speakers, this difference was much greater for Con2 and Con4 (targeting objects) compared to Con1 and Con3 (targeting subjects).

Finally, as can be seen in the comparisons above, the mean differences between the performances of the advanced and intermediate groups within each language group suggest possible interlanguage grammar development, where the advanced speakers are more successful than the intermediate speakers for both language groups.

4.3.2. Statistical Analysis of the QAT

This part is divided into three sections in which the statistical analyses conducted on group comparisons across the conditions are given.

4.3.2.1. Intergroup Comparison of Each Condition for the QAT

In this part, groups are compared among each other across single conditions. In order to do this, *ANOVA* has been used as a statistical tool to compare the group means. If ANOVA yields a statistically significant result, then *two-sample two tests* are conducted to understand where the difference among the groups lies. This analysis has two-folds. First, the performances of each learner group are compared against that of the NS. Then, L2 speakers are compared among themselves.

4.3.2.1.1. Intergroup Comparison of Con1 for the QAT

Con1 targets the embedded subject in complex-wh questions where the person in the matrix subject is talking about another person in the answer who is the embedded subject. Considering this, the results of the intergroup comparison of Con1 are displayed in Table 30 below:

Table 30

Intergroup comparison of Con1 for the QAT

Groups	Con1		
	t(f)	d.f.	*p*
ANOVA	7.61	93	0.0001
ADV-DNS vs. NS	2.73	26	0.011
ADV-NNS vs. NS	2.98	14	0.010
INT-DNS vs. NS	3.19	14	0.007
INT-NNS vs. NS	6.71	10	0.0001
ADV-DNS vs. ADV-NNS	0.45	40	0.96
ADV-DNS vs. INT-DNS	1.33	40	0.19
ADV-NNS vs. INT-NNS	3.44	24	0.002
INT-DNS vs. INT-NNS	1.15	24	0.26

ANOVA revealed a statistically significant difference across the groups (f=7.61 p=0.0001). Therefore, in order to understand the differences among the groups, two-sample t-tests were conducted.

The comparison between the ADV-DNS and ADV-NNS with the NS indicated statistically significant differences respectively (t=2.73, p= 0.011; t=2.98, p=0.010). In the same vein, statistically significant differences can be found across the comparison of the INT-DNS and INT-NNS with that of the NS respectively (t=3.19, p= 0.007; t=6.71, p=0.0001). This means that both learner groups did not display native-like performance in answers to complex wh-questions which ask about the embedded subject even though the descriptive data revealed that they performed better in this context compared to other conditions. The reason for this difference might be related to discourse-bound interpretation of the subject use, where the use of subject is governed by the context, here by the illustrated questions. Further data revealed that the performances of the L2 learners were worse when the target answer is given unacceptable. This means that when the answer requires an overt subject as required by the context, some L2 speakers failed to interpret this as unacceptable. This can be observed in the following example:

(72)

Test Item 5

Soru: Ali kimin fotoğraf çektiğini gördü?

(Question: Who did Ali see taking photograph?)

Cevap: Ali fotoğraf çektiğini gördü.

(Answer: Ali saw *pro* was taking a photograph).

As illustrated by the picture, *Ali* sees someone taking a photograph. As can be understood from the picture, the question asks about the person whom *Ali* sees taking photograph. Therefore, the answer should include an overt embedded subject, as it signals the topic shift. Yet, the L2 participants mostly failed to interpret this as unacceptable

When the learner groups were compared among themselves, no statistically significant differences were found between the groups ADV-DNS vs. ADV-NNS (t=0.45, p=0.96) and INT-DNS vs. INT-NNS (t=1.15, p=0.26). These findings suggest that different groups of languages did not perform differently in answers to complex wh-questions asking about the embedded subject.

The comparison of the data from the ADV-DNS vs. INT-DNS also revealed no statistically significant difference (t=1.33, p=0.19). As for the comparison between ADV-NNS vs. INT-NNS, there was a statistically significant difference (t=3.44, p=0.002). These findings suggested that interlanguage grammar development cannot be observed in discourse null subject (DNS) speakers contrary to non-null subject (NNS) speakers who displayed sensitivity to the constraints reflected in Con1.

4.3.2.1.2. Intergroup Comparison of Con2 for the QAT

Con2 targets the embedded object in the complex wh-question, where the embedded subject is co-referential with the matrix subject. Since the embedded subject is in the topic continuity context, it should be realized empty. Regarding this, the intergroup comparison of Con2 can be seen below:

Table 31

Intergroup comparison of Con2 for the QAT

Groups	Con2		
	t(f)	d.f.	*p*
ANOVA	17.98	93	0.0001
ADV-DNS vs. NS	4.97	51	0.0001
ADV-NNS vs. NS	4.96	39	0.0001
INT-DNS vs. NS	8.18	39	0.0001
INT-NNS vs. NS	7.90	35	0.0001
ADV-DNS vs. ADV-NNS	0.19	39	0.85
ADV-DNS vs. INT-DNS	2.5	40	0.017
ADV-NNS vs. INT-NNS	1.63	23	0.12
INT-DNS vs. INT-NNS	1.18	24	0.25

The results displayed that ANOVA yielded a statistically significant difference across the groups (f= 17.98, p=0.0001). Therefore, ANOVA was followed by the t-tests to determine the differences among the paired groups.

The comparison of the performances between the ADV-DNS and ADV-NNS with that of the NS indicated statistically significant differences respectively (t=4.97, p= 0.0001; t=4.96, p=0.0001).

By the same token, statistically significant results can be noted as for the comparison between the INT-DNS and INT-NNS with the NS (t=8.18, p= 0.0001; t=7.90, p=0.0001). The results suggest that learner groups did not reach native like attainment in contexts asking about the embedded object, where the use of overt subject in answers is redundant since the referent of the subject has already been introduced in the question. Particularly, the L2 speakers readily accepted the overt subjects in the answers as acceptable. This can be seen in the following example:

(73)

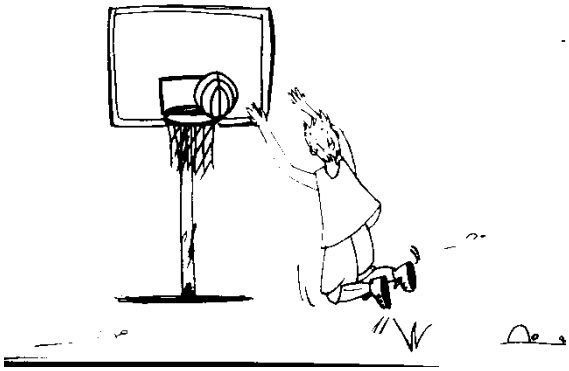
Test Item 7

Soru: Emre ne yaptığını söyledi?

(Question: What did Emre say doing?)

Cevap: Onun basketbol oynadığını söyledi.

(Answer: *Pro* said he was playing basketball).



In this picture given above, *Emre* is the one playing basketball. The answer to this question is unacceptable as the embedded subject, *o (he),* would be interpreted as referring to a third party in the discourse on the grounds that no other person is present[20]. However, *Emre* is the topic in the question and the answer to this question cannot include an overt subject. Therefore, the answer does not represent the picture, which participants perceived wrong.

As for the comparison among the learner groups, no statistically significant differences were found between the groups ADV-DNS vs. ADV-NNS (t=0.19, p=0.85) and INT-DNS vs. INT-NNS (t=1.18, p=0.25). Similar to results fetched from the Con1, the findings suggest no difference concerning different language groups.

Considering the comparison of the data from the ADV-DNS vs. INT-DNS, the results yielded statistically significant difference (t=2.5, p=0.017), which indicates sensitivity to the contexts represented in Con2 whereas the comparison between ADV-NNS vs. INT-NNS, revealed no

[20] Another possibility is that *o (he)* might refer to Emre, having a contrastive topic function. However, as there is no one in the context, Emre cannot contrast himself with another person in the discourse. Hence, this option would also be unacceptable.

difference (*t*=1.63, p=0.12), which does not suggest grammar development from the intermediate to the advanced level.

4.3.2.1.3. Intergroup Comparison of Con3 for the QAT

Con3 involves simple wh-questions which target the subject of the sentence. Therefore, the subject position needs to be marked overtly as it carries the new information. The intergroup comparison of Con3 can be seen below:

Table 32

Intergroup comparison of Con3 for the QAT

Groups	Con3		
	t(f)	d.f.	*p*
ANOVA	14.52	93	0.0001
ADV-DNS vs. NS	3.78	51	0.0001
ADV-NNS vs. NS	9.06	39	0.0001
INT-DNS vs. NS	6.14	39	0.0001
INT-NNS vs. NS	14.2	35	0.0001
ADV-DNS vs. ADV-NNS	2.18	40	0.035
ADV-DNS vs. INT-DNS	2.15	23	0.042
ADV-NNS vs. INT-NNS	1.47	24	0.156
INT-DNS vs. INT-NNS	0.58	22	0.603

Considering the results, ANOVA indicated a statistically significant difference among the groups (*f*= 14.52, *p*=0.0001), which required conducting t-tests to determine the differences among the groups.

As in the case of Con1 and Con2, the comparison between the learner groups and the NS, indicated statistically significant differences (ADV-DNS vs. NS, *t*=3.78, *p*=0.0001; ADV-NNS vs. NS, *t*=9.06, *p*=0.0001; INT-DNS vs. NS, *t*=6.14, *p*=0.0001; INT-NNS vs. NS, *t*=14.2, *p*=0.0001). These results suggest that both groups of speakers in different proficiency levels did not attain the constraint represented in Con3. Though some success is present in the descriptive data, the results mean that the L2 speakers did not fully acquire the use of overt subject in answers to subject wh-questions, especially when the answer has unacceptable null subject construction:

(74)

Test Item 6

Soru: Ali'yi kim seviyor?

(Question: Who loves Ali?)

Cevap: Seviyor.

(Answer: *Pro* loves).

Here, the question is asking about the subject. As the subject carries new information, it cannot be left null in the answer because the referent of the sentence has not been established in the discourse. However, some participants failed to insert an overt subject into this context.

When the learner groups were compared among each proficiency level, the results fetched from the advanced groups yielded a statistically significant difference (t=2.18, p=0.035). This finding demonstrates a difference among different language groups, where the ADV-DNS scored 7.22 out of 8 points whereas the ADV-NNS scored 6.53 out of 8 points. As the descriptive data expressed, ADV-DNS was more successful compared to ADV-NNS. However, as the *p-value* is closer to the confidence interval, 0.05, it did not indicate a strong statistical evidence. On the other hand, as for the comparison across the intermediate groups, no statistically significant difference can be found (t=0.58, p=0.603).

Considering the comparison between each learner group, the results yielded a statistically significant difference for ADV-DNS vs. INT-DNS (t=2.15, p=0.042) but not for ADV-NNS vs. INT-NNS (t=0.58, p=0.603). However, considering the DNS group, since the *p-value* is closer to confidence interval, the given difference is not statistically strong. Overall, it can be argued that as for the DNS group, grammar development starting from the intermediate level can be seen.

4.3.2.1.4. Intergroup Comparison of Con4 for the QAT

Con4 involves simple wh-questions which ask about the object of the sentence. Therefore, as the object is being asked, there is no need to use an overt subject in the answer. With respect to this, the intergroup comparison of Con4 can be seen below:

Table 33

Intergroup comparison of Con4 for the QAT

Groups	Con4		
	t(f)	d.f.	*p*
ANOVA	42	93	0.0001
ADV-DNS vs. NS	7.95	51	0.0001
ADV-NNS vs. NS	10.43	39	0.0001
INT-DNS vs. NS	9.79	37	0.0001
INT-NNS vs. NS	8.93	35	0.0001
ADV-DNS vs. ADV-NNS	1.34	40	0.187
ADV-DNS vs. INT-DNS	1.64	40	0.109
ADV-NNS vs. INT-NNS	1.25	24	0.223
INT-DNS vs. INT-NNS	0.48	24	0.635

Considering results, ANOVA revealed a statistically significant difference across the groups (f=42, p=0.0001). Therefore, t-tests were carried out to understand the difference among the groups.

As in the case of previous comparisons, in terms of the contexts which require a null subject in object-wh questions, the comparison of the performances of the learner groups with that of the NS yielded dramatic differences (ADV-DNS vs. NS, t=7.95, p=0.0001; ADV-NNS vs. NS, t=10.43, p=0.0001; INT-DNS vs. NS, t=9.79, p=0.0001; INT-NNS vs. NS, t=8.93, p=0.0001). Concerning this, it can be argued that the learner groups did not attain the constraints governing the use of null and overt subject distribution, indicating that L2 speakers employed null subjects irrespective of the pragmatic context. This is mostly valid for the answers which have unacceptable overt subjects. This can be explained in the following example:

(75)

Test Item 8

Soru: Ne yapıyorsun?

(Question: What are you doing?)

Cevap: Ben ders çalışıyorum.

(Answer: I am studying).

In this example, the question asks about the object, which is realized by the object interrogative pronoun *whom*. As the referent of the subject has already been introduced in the question, which is, *sen (you)* – as can be inferred from the agreement marker on the verb – using null subject in the answer is pragmatically more appropriate as the subject signals topic continuity.

As for comparing the proficiency levels among themselves, the findings from the advanced and intermediate groups did not yield statistically significant differences respectively (t=1.34, p=0.187; t=0.48, p=0.635). This finding can be taken an indication of the fact that the performances of the different language groups did not vary concerning the use of null subject in object wh-questions.

Likewise, considering the comparison between each learner group, the results did not yield statistically significant differences as well (ADV-DNS vs. INT-DNS, t=1.64, p=0.109) (ADV-NNS vs. INT-NNS (t=1.25, p=0.223). This finding reveals that sensitivity to the context reflected in Con4 did not develop.

4.3.2.2. Intragroup Comparison between Different Paired Conditions for the QAT

In this part, intragroup comparison between different paired conditions has been carried out to understand how the score performance of each group differs across paired two conditions. The selected paired contexts are Con1 vs. Con2, Con1 vs. Con3, Con2 vs. Con4, and Con3 vs. Con4. The reason for selecting these pairs is that each pair shares the same structure either in the question type (simple vs. complex) or the target answer (null vs. overt subject). For example, as for the Con1 vs. Con2, the shared structure is the type of question, which is complex-wh question, and the difference is in the target answer. Con1 requires overt subject to be used whereas Con2 supports null subject in complex sentences. Therefore, this comparison allows us to figure out how the comparison of null vs. overt subject in the target answers differs across complex-wh questions.

Paired-sample two tests were carried out as a statistical tool in order to compare two dependent and paired conditions across five groups.

The intragroup comparison between different paired conditions are given in Table 34 below:

Table 34

Intragroup comparison between different paired conditions for the QAT

Groups	Con1 vs. Con2			Con1 vs. Con3			Con2 vs. Con4			Con3 vs. Con4		
	t(f)	d.f.	*p*	*t(f)*	d.f.	*p*	*t(f)*	d.f.	*p*	*t(f)*	d.f.	*p*
NS	2.90	25	0.008	-	-	-	1.44	25	0.161	1.81	25	0.083
ADV-DNS	6.29	26	0.0001	0.31	26	0.762	0.23	26	0.823	8.89	26	0.0001
ADV-NNS	6.62	14	0.0001	1.87	14	0.082	1.24	14	0.235	7.18	14	0.0001
INT-DNS	4.01	14	0.001	0	14	1.00	0.92	14	0.371	4.79	14	0.0001
INT-NNS	2.89	10	0.016	1.45	10	0.167	1.00	10	0.341	9.90	10	0.0001

Comparison is based on the following order: For each paired condition, statistical results noted above are discussed respectively in relation to five groups.

As for the Con1 vs. Con2, which involves complex wh-questions, Con1 targets the embedded subject whereas Con2 targets the embedded object. Therefore, answers to Con1 requires overt subject and answers to Con2 requires the use of null subject. When the findings are closely scrutinized, statistically significant differences can be found across all the learner groups, including the NS (NS, t=2.90, p=0.008; ADV-DNS, t=6.29, p=0.0001; ADV-NNS, t=6.62, p=0.0001; INT-DNS, t=4.01, p=0.001; INT-NNS, t=2.89, p=0.016). The reason for the statistical difference displayed by the NS data can be accounted for with the descriptive data where they performed 100 % in Con1 whereas they performed 88.5 % in Con3. Although, the error margin for the NS in Con3 is acceptable, the difference necessarily yielded a statistical difference.

Concerning the pairs Con1 vs. Con3, both conditions require the use overt subject in the answer, yet the type of question and the position of subject differ (simple vs. complex). Therefore, this pair aims to understand whether the subjects in the topic shift contexts in the complex embedded clause or in the simple clause would yield a difference in the answer. Considering this, no statistically significant difference was found in the learner group and the NS data. (NS, *analysis is not available as the participants scored 100 %,* ADV-DNS, t=0.31, p=0.762, ADV-NNS, t=1.87, p=0.082, INT-DNS, t=0, p=1, INT-NNS t=1.45, p=0.167). These results suggest that the position of subject, whether it is in the embedded clause or in the simple / root clause did not reveal a difference for the participants in the study irrespective of the different language groups.

As for the pairs Con2 vs. Con4, both conditions require the use of null subject in the answer but the position of subject differs in two different wh-questions (simple vs. complex). Accordingly, this pair questions whether the position of subject in these two types of questions would cause a difference in the answer. Bearing this in mind, as in the case of the previous comparison, the difference was not statistically significant for the learner groups and the NS (NS, t=1.44, p=0.161; ADV-DNS, t=0.23, p=0.823, ADV-NNS, t=1.24, p=0.235, INT-DNS, t=0.92, p=0.371, INT-NNS t=1.00, p=0.341). These findings indicate that the performances of the L2 learners did not differ depending on the position of subject in the questions which require null subject in the answer.

Considering the pairs Con3 vs. Con4 for the final analysis, which condition the use of null vs. overt subject in the answer, Con3 targets the subject and Con4 targets the object in simple wh-questions. When the results are taken into account, the data revealed statistically significant differences for the learner groups (ADV-DNS, t=8.89, p=0.0001, ADV-NNS, t=7.18, p=0.001, INT-DNS, t=4.79, p=0.001, INT-NNS t=9.90, p=0.0001) but it did not yield a difference in the NS data (NS, t=1.81, p=0.083). These results are similar to findings drawn from the pairs Con1 vs. Con2 which also involved differences in the target answer as to the use of subject. Therefore, one can draw a conclusion that learner groups, irrespective of the language groups (DNS or NNS) and proficiency levels (intermediate or advanced), failed to distinguish to discern the difference between null vs. overt subject distribution as answers to different types of questions.

4.3.2.3. Intergroup Comparison between Different Paired Conditions for the QAT

This part is dedicated to comparing the groups among each other across the paired conditions which are explained in the intragroup analysis above (Con1 vs. Con2; Con1 vs. Con3; Con2 vs. Con4; Con3 vs. Con4) and it questions whether the differences explored in intragroup comparison yield statistically significant differences when the groups are compared against each other. In accordance with this purpose, *ANOVA* has been performed to understand whether the difference among the groups is statistically significant or not. If so, *two-sample t-tests* have been carried out to discern where the difference is.

The analysis has been made on the following order: First, learner groups and the native speakers (NS) data were compared, which is followed by the comparison among the learner groups.

4.3.2.3.1. Intergroup Comparison of Con1 vs. Con2 for the QAT

Con1 and Con2 present complex wh-questions which target either the subject or the object of the sentence, requiring either overt or null subject in the answer. Accordingly, the results for intergroup comparison between Con1 and Con2 can be displayed in Table 35 below:

Table 35

Intergroup comparison of Con1 vs. Con2 for the QAT

Groups	Con1 vs. Con2		
	t(f)	d.f.	*p*
ANOVA	20.53	93	0.0001
ADV-DNS vs. NS	5.03	42	0.0001
ADV-NNS vs. NS	5.86	28	0.0001
INT-DNS vs. NS	8.16	25	0.0001
INT-NNS vs. NS	11.61	27	0.0001
ADV-DNS vs. ADV-NNS	0.08	39	0.93
ADV-DNS vs. INT-DNS	2.40	37	0.021
ADV-NNS vs. INT-NNS	3.85	24	0.0007
INT-DNS vs. INT-NNS	0.66	23	0.51

As can be seen from the result above, ANOVA yielded a statistically significant difference across all the groups (f=20.53, p=0.0001). This means that the difference is statistically significant for some of the paired groups, requiring t-tests to be conducted.

The data from the learner groups when compared to the data from the NS indicated statistically significant differences (ADV-DNS vs. NS, t=5.03, p=0.0001; ADV-NNS vs. NS, t=5.86, p=0.0001; INT-DNS vs. NS, t=8.16, p=0.0001; INT-NNS vs. NS, t=11.61, p=0.0001). This finding is in parallel with the intragroup analysis conducted on Con1 vs. Con2 for single groups. Accordingly, these results suggest that the mean score performances of the learner groups compared to that of the NS yielded a difference in the contexts where either null or overt subject is expected in the answers depending on complex subject or object wh-questions.

Contrary to this, when the advanced and intermediate proficiency levels were compared among themselves, the performances of the ADV-DNS vs. ADV-NNS did not statistically differ as to

the distinction between Con1 vs. Con2 (t=0.08, p=0.93). In a similar vein, the mean differences between INT-DNS vs. INT-NNS did not statistically differ as well (t=0.66, p=0.51). In other words, no significant difference has been observed among the L2 speakers across different types of languages.

Apart from this, the comparison of the learner groups among themselves gave rise to statistically significant differences respectively (ADV-DNS vs. INT-DNS, t=2.40, p=0.021; ADV-NNS vs. INT-NNS, t=3.85, p=0.0007). This finding highlights the sensitivity of the L2 learners to the constraints represented in Con1 vs. Con2 based on the proficiency level.

4.3.2.3.2. Intergroup Comparison of Con1 vs. Con3 for the QAT

Con1 and Con3 involve contexts which require overt subjects in the answers to either complex and simple wh-questions. Accordingly, Table 36 below displays the intergroup comparison of Con1 vs. Con3:

Table 36

Intergroup comparison of Con1 vs. Con3 for the QAT

Groups	Con1 vs. Con3		
	t(f)	d.f.	*p*
ANOVA	13.99	93	0.0001
ADV-DNS vs. NS	4.14	26	0.0003
ADV-NNS vs. NS	5.86	14	0.0001
INT-DNS vs. NS	4.09	14	0.001
INT-NNS vs. NS	9.23	10	0.0001
ADV-DNS vs. ADV-NNS	1.18	37	0.24
ADV-DNS vs. INT-DNS	1.83	21	0.08
ADV-NNS vs. INT-NNS	3.29	22	0.003
INT-DNS vs. INT-NNS	1.09	22	0.28

ANOVA demonstrated a statistically significant difference across all the groups (f=13.99, p=0.0001), which needed to be followed by two-tests to determine the difference between two groups.

When the performances of the learner groups were compared with that of the NS, the group means resulted in statistically significant differences (ADV-DNS vs. NS, t=4.14, p=0.003; ADV-NNS vs. NS, t=5.86, p=0.001; INT-DNS vs. NS, t=4.09, p=0.001; INT-NNS vs. NS, t=9.23, p=0.0001). This means that the mean scores of the learner groups differed from that of the NS in the context requiring overt subject as answers to simple and complex wh-questions.

Contrary to this, further comparison among the learner groups themselves did not bring in statistically significant differences with regard to the ADV-DNS vs. ADV-NNS and INT-DNS vs. INT-NNS data respectively (t=1.18, p=0.24; t=1.09, p=0.28). When the data fetched from the comparison between the L2 speakers among themselves were taken into account, it can be argued that different language groups did not differ in their performances.

In the same vein, when the data from the DNS speakers and NNS speakers were compared among each other, the DNS data did not yield a statistically significant difference (t=1.83, p=0.08) yet it did in the NNS data (t=3.29, p=0.003).

4.3.2.3.3. Intergroup Comparison of Con2 vs. Con4 for the QAT

Con2 and Con4 require contexts where the use of null subject is acceptable in answers to simple and complex wh-questions which target the object of the sentence. Concerning the intergroup comparison for Con2 vs Con4, the results can be seen in Table 37 below:

Table 37

Intergroup comparison of Con2 vs. Con4 for the QAT

Groups	Con2 vs. Con4		
	t(f)	d.f.	*p*
ANOVA	42.01	93	0.0001
ADV-DNS vs. NS	7.53	51	0.0001
ADV-NNS vs. NS	9.98	38	0.0001
INT-DNS vs. NS	11.62	38	0.0001
INT-NNS vs. NS	12.52	31	0.0001
ADV-DNS vs. ADV-NNS	1.00	39	0.32
ADV-DNS vs. INT-DNS	2.87	40	0.006
ADV-NNS vs. INT-NNS	2.37	22	0.02
INT-DNS vs INT-NNS	0.68	22	0.50

Based on ANOVA results, the findings indicated a statistically significant difference with regard to the group data (f=42.01, t=0.0001). Hence, t-tests were conducted to figure out the mean differences between two groups.

Regarding the comparison between the L2 groups and the NS data, the mean score performances of the ADV-DNS and ADV-NNS statistically differed from that of the NS respectively (t=7.53, p=0.0001; t=9.98, p=0.0001). In a similar way, the performances of the INT-DNS and INT-NNS statistically differed from that of the NS data respectively as the results of the t-tests revealed (t=11.62, p= 0.0001; t=12.52; p= 0.0001). This finding demonstrates that the L2 speakers are not sensitive to the context requiring null subject as answers to simple and complex wh-questions.

As for the comparison among the learner groups themselves, no difference was found between ADV-DNS vs. ADV-NNS (t=1.00, p=0.32). Similarly, the comparison of INT-DNS vs. INT-NNS did not yield a statistically significant difference either (t=0.68, p=0.50) as in the case of previous intergroup comparisons. This finding supports the aforementioned claims with respect to the discursive constraints as a vulnerable field to acquire.

Concerning the data from the DNS group, the difference was statistically significant (t=2.87, p=0.006). By the same token, a significant difference was also observed for the NNS data (t=2.37, p=0.02). These findings suggest that the sensitivity to the constraints between Con3 vs. Con4 has increased based on the proficiency level in the given language groups.

4.3.2.3.4. Intergroup Comparison of Con3 vs. Con4 for the QAT

Con3 and Con4 present contexts in which either the use of null or overt subject is required as answers to simple wh-questions targeting either the subject or object of the sentence. Therefore, these pairs question whether the group means differ as to the use of null and overt subject. Accordingly, the findings for the intergroup comparisons for Con3 vs Con4 are illustrated below in Table 38:

Table 38

Intergroup comparison of Con3 vs. Con4 for the QAT

Groups	Con3 vs. Con4		
	t(f)	d.f.	*p*
ANOVA	51.56	93	0.0001
ADV-DNS vs. NS	8.28	47	0.0001
ADV-NNS vs. NS	13.44	37	0.0001
INT-DNS vs. NS	10.67	25	0.0001
INT-NNS vs. NS	16.42	33	0.0001
ADV-DNS vs. ADV-NNS	2.74	40	0.009
ADV-DNS vs. INT-DNS	2.82	33	0.008
ADV-NNS vs. INT-NNS	2.20	24	0.03
INT-DNS vs INT-NNS	0.83	21	0.41

ANOVA has revealed a statistically significant difference across the given groups (f=51.56, p=0.001). Therefore, t-tests were carried out to decide which groups have significantly differed with respect to the distinction between Con3 vs Con4.

As in the case of previous analyses on intergroup comparison for paired conditions, the data fetched from the learner group and the NS statistically differed (ADV-DNS vs. NS, t=8.28, p=0.0001; ADV-NNS vs. NS, t=13.44, p=0.0001; INT-DNS vs. NS, t=10.67, p=0.0001; INT-NNS vs. NS, t=16.42, p=0.0001). Accordingly, it can be argued that L2 Turkish speakers – irrespective of the language group – are not sensitive to the context requiring either null or overt subject as answers to simple wh-questions. This further suggests that the L2 speakers were not sensitive to pragmatically regulated topic continuity-topic shift distinction.

When the learner groups were compared among themselves, the performances of the ADV-DNS vs. ADV-NNS statistically differed as to the distinction between Con3 vs. Con4 (t=2.74, p=0.009). As it can be demonstrated in the descriptive data, the ADV-DNS are more successful than the ADV-NNS. In fact, this is the only statistical difference between the ADV-DNS and ADV-NNS speakers in this task. On the contrary, the mean score performances between the INT-DNS vs. INT-NNS did not statistically differ (t=0.83, p=0.41).

Furthermore, the comparison of the learner groups across each other yielded statistically significant differences (ADV-DNS vs. INT-DNS, t=2.82, p=0.008; ADV-NNS vs. INT-NNS,

t=2.20, *p*=0.03). This finding indicates that the sensitivity of the L2 learners to the constraints present in Con3 vs. Con4 has increased based on the proficiency level.

4.3.3. Discussion of the Results for the Question-Answer Task

Question-answer pairs have been frequently used by researchers to assess how discursive constraints are interpreted in L2 acquisition (e.g. Perez-Leroux & Glass, 1999). In accordance with this, this study also tests how the pragmatics of subject distribution is acquired by the L2 Turkish speakers, with a focus on how the participants interpret the subjects (null or overt) in the answers in relation to relevant questions. The task contains two types of question-answer pairs. The first one is represented with complex wh-questions (Con1 and Con2). The second one is represented with simple / root wh-questions (Con3 and Con4). Both of them target either the subject or object in the questions. Therefore, considering the topic continuity-topic shift realization, subject questions require overt subject in the answers whereas the answers to object questions require null subject.

Considering the intergroup comparison across each condition, the interpretations of the learner groups differed from the control group. As for the intragroup comparisons, the selected pairs Con1 vs. Con3 (targeting subjects) and Con2 vs. Con4 (targeting objects) did not yield differences for all given groups. The final intergroup comparison across the paired groups highlighted differences between the learner groups and the control group once more.

With respect to the question-answer pairs described above, the results from the QAT suggest that the L2 speakers did not attain the discursive constraints on the null vs. overt subject distribution, which is also in line with the results of the CGJT. In other words, the findings of this task validates the IH.

Concerning the findings, the results of the statistical and descriptive analysis provide us three discussions:

(i) L2 speakers were more successful in their interpretations which target the subject of the sentence

Although their performances were distant from that of the native speakers, L2 speakers are more sensitive to subject questions. In other words, they are most successful with the construal of overt subject (either complex embedded or subject of the root clause) in the answers to complex and root wh-questions. Considering the object questions, they were less successful.

Answers to questions which require subjects are questions in topic shift contexts, where the subject of the clause is asked in the questions. Considering this, both the advanced and intermediate L2 speakers were more successful with topic shift constructions which ask subjects. This might be related with the possible prominence of the topic shift constructions which tend to be salient in the discourse (Quesada & Blackwell, 2009). Topic shift is more salient in discourse compared to topic continuity since each sentence has informational value and they cannot be formed without a focused unit (Vallduvi & Engdahl, 1996). Therefore, the L2 Turkish speakers tended to accept and form answers including an overt subjects more successfully than employing null subjects.

(ii) L1 transfer is not operative in comprehending topic continuity-topic shift realization

Another finding from the test indicates that no statistical difference has been observed between the performances of different group of L2 speakers. Although descriptive results displayed that the DNS speakers were more successful than the NNS speakers, this difference was not reflected on the statistical results. Therefore, it can be argued that although L1 of the DNS speakers employ such discursive constraints as topic continuity and topic shift, they did not perform better than the NNS speakers, which again refutes the claims of Full Transfer theories, where no L1 transfer was observed. Furthermore, the data also suggest that the advanced speakers has become more sensitive to the given constraints during their interlanguage grammar development.

(iii) The grammatical position of subject does not constrain the discursive distribution of subjects

The results of the study also suggest that the position of subject – either in the complex embedded or simple clause – does not constraint the use of null and overt subject distribution. In other words, the intragroup comparisons for Con1 vs. Con3 – where overt subject is represented either in the embedded or in the simple clause respectively – and Con2 vs. Con4 – in which null subject is represented either in the embedded or the simple clause – did not yield statistically significant

differences. Therefore, it can be argued that subject position does not have prominence over one another for L2 speakers to acquire.

Overall, the statistical analyses displayed that the L2 groups did not reach a native like performance although interlanguage development from the intermediate to the advanced level was partly observed. Hence, this task is another evidence for the fact that null and overt subject distribution cannot be acquired even at the advanced proficiency level. Considering this, the findings of this study supports the IH in contrast to the FTFA.

4.4. OVERALL DISCUSSION

Theories of L2 acquisition on null/overt subject distribution at the syntax-discourse interface have competing perspectives and orientations in accounting for whether complete acquisition is possible at the end-state grammar and to what extent L1 transfer interferes in the learning process. Among them, the Full Transfer / Full Access Hypothesis (FTFA) asserts that the syntax-discourse interface does not present permanent learnability problems for L2 speakers given the discourse-bound constraints of null/overt subject distribution. Accordingly, L2 acquirers transfer the L1 categories into target grammar starting from the initial grammar development and access to UG to (re)set the null subject parameter (NSP) at the end state grammar. The studies supporting the FTFA hold that L2 speakers can ultimately attain the discourse conditions governing the choice to use null and overt pronominal and lexical subjects. Centered at the opposite perspective, the Interface Hypothesis (IH) claims that the acquisition of external interfaces (the interaction of linguistic modules with the external world) presents learnability problems for L2 speakers. Therefore, this hypothesis predicts that features residing at the syntax-discourse interface cannot be acquired. Since null/overt subject distribution is governed by the mapping of syntax and discourse, it cannot be fully acquired even by the near-native speakers. One direct consequence of these approaches is that pure syntactic constraints are acquired earlier than the features present at the syntax-discourse interface, which has been labelled under the name of Syntax before Discourse Hypothesis (SBDH).

In the light of the above points, the aims of the study have been gathered around the idea of whether null and overt subjects are acquired in L2 Turkish by typologically two distinct language groups considering the syntax-discourse interface. If the findings of the study reveal that the L2 speakers have performed native like, the findings will be interpreted as supporting the FTFA. On

the contrary, if the performances of the L2 speakers will diverge from that of the native speakers the results will support the IH. Leaving this aside, considering the syntactic features as separate from the discursive constraints, if the L2 acquirers have become more successful in acquiring the pure syntactic constraints than the pragmatics of null vs. overt subject use, these finding will be in line with the claims of the SBDH.

Taking the above points into account, the Contextualized Grammaticality Judgement Task (CGJT) and the Question-Answer Task (QAT) question the acquisition of discursive features residing at the syntax-discourse interface. Framed within the syntax-discourse interface considerations, the findings from the CGJT and the QAT will reveal whether the IH or the FTFA holds in L2 Turkish respectively. When the findings from these tasks are compared with the results of the Overt Pronoun Constraint Task (OPCT), which questions the interpretation of co-reference interpretation between the subjects of complex sentences (quantified/wh vs. referential; null vs. overt), it will be understood whether the syntax of null vs. overt subject distribution is acquired earlier than the features at the syntax-discourse interface.

In what follows, the findings from each task is further elaborated and discussed in relation to relevant studies in the field. Then, the findings from the three tasks are gathered together and discussed at length.

First, the present study has found that the findings of the CGJT are completely in line with the assertions of the IH. The L2 speakers of discourse-null subject (DNS) and non-null subject (NNS) speakers had deficiencies in acquiring null vs. overt subject distribution even at the advanced level of proficiency. This finding is not surprising within the context of the IH in which the pragmatics of null and overt subjects is considered as the locus of syntax-discourse interface, which is deemed vulnerable even for the near-native speakers. In the light of this finding, it can be claimed that the acquisition of null/overt subject distribution is a vulnerable field. As part of the syntax-discourse interface, the marking of topic continuity and topic shift on the realization of subjects presents challenges to L2 speakers. The problems at this interface was also framed under the name of the Interface Vulnerability Hypothesis (Sorace, 2011), which claims that external interfaces present more difficulties than internal linguistic domains. Along with this finding, there are three issues that needs further discussion, which are listed below:

(i) L1 transfer is not operative at the syntax-discourse interface

When the findings are closely scrutinized, an interesting result to discuss is that no difference was found between the performances of Korean and Japanese DNS speakers and English and German NNS speakers at the advanced and intermediate proficiency levels. Both group of speakers and proficiency levels were insensitive to the pragmatics of null vs. overt subject distribution in the same way although Korean and Japanese have similar discursive constraints that regulate the distribution of subjects. Obviously, this finding suggests that L1 transfer is not operative at the syntax-discourse interface. If L1 transfer played a role, the DNS speakers would display early sensitivity to the discursive constraints starting from the intermediate proficiency level. However, the findings revealed that the speakers of two typologically distinct language groups interpreted the target pragmatic regulations similarly.

This finding is in line with a number of studies in the field which supports the IH. For example, Margaza and Bel (2006) found that the advanced Greek L2 Spanish speakers had pragmatic deficits despite the fact the Greek is a null subject language and has the same pragmatic regulations. Similarly, Lozano (2018) also found that the lower-advanced and upper-advanced L2 Spanish speakers of Greek were also incapable of acquiring the given discursive constraints. Likewise, the bidirectional study of Margaza and Gavarro (2020) among L2 Spanish and L2 Greek speakers indicated that the vulnerability of the syntax-discourse interface holds for the L2 Spanish group[21]. Furthermore, in another study, it was also observed that L2 Spanish speakers of Italian displayed non-target like behavior in pronominal subject use despite the same discursive constraints are found in both languages. Taking this finding into account, Sorace and Filiaci (2006) claimed that the syntax-discourse interface 'is not selective depending on L1/L2 pairs' (cited in Rothman, 2009, p. 953). This means that the syntax-discourse interface is vulnerable irrespective of the L1 and L2 pairs. Therefore, as Sorace and Serratrice (2009; cited in Montrul, 2011) claimed the syntax-discourse interface is not affected by L1 transfer. The present study strongly supports this assertion as the performances of two typologically distinct group of languages were the same statistically. Therefore, one can argue that the DNS speakers did not transfer the discursive constraints present in their languages to their L2 grammar. Obviously, this finding refutes the Full Transfer approaches in the field.

(ii) interlanguage grammar development can be seen in the L2 group data

[21] Note that, the results were native-like for the L2 Greek data, unlike the L2 Spanish group. They did not bring rationale to this distinction. In order to account for this asymetrical finding, more studies need to be done.

As discussed before, the intermediate group data from the two groups indicated insensitivity to the given pragmatic constraints. In other words, the interpretations of the intermediate speakers on the target structures dramatically differed from the performance of the native speakers. Nevertheless, the findings of the present study suggest a sensitivity displayed by the L2 speakers to the discursive rules during the interlanguage grammar development even though the L2 acquirers had non-target like behavior. This accounts for why the advanced speakers performed better than the intermediate speakers for both groups. This finding suggests that certain progress on acquiring discursive constraints could be achieved during the interlanguage grammar development, which was also observed in another study by Lozano (2018). However, this progress does not measure up for the L2 speakers to attain the target grammar.

(iii) subjects in topic shift contexts are more salient to comprehend than subjects in topic continuity contexts

One point that needs to be discussed is the non-target like behavior of the interpretation of L2 participants in correcting unacceptable topic continuity and topic shift constructions. As discussed previously (See section 4.2.3. for the discussion of the CGJT), the L2 speakers failed to acquire the subject distribution both in topic continuity and topic shift constructions. However, when the results for the unacceptable topic continuity and topic shift structures were compared with each other, it was found that the participants were more successful in contexts (Con3) which forced them to employ overt subject (in place of a null subject) than the contexts (Con4) which forced them to use null subject (in place of a redundant use of overt subject). In other words, although the participants did not attain the discursive constraints regulating the Con3 and Con4 respectively, they were relatively more successful in the contexts which create topic shift in the Con3.

One plausible argument is that there might be differences in violating discursive constraints. With respect to this, Lozano (2016) suggested the Pragmatic Principles Violation Hypothesis (PPVH) in his study in order to account for why his advanced speakers differed in null vs. overt subject preferences in anaphora resolution. Drawing on the Neo-Gricean communicative principles raised recently, he claimed that the pragmatic violations might range from strong to mild depending on the communicative principles. Accordingly, using an overt subject in topic continuity contexts is a mild violation in terms of informativeness, since it is just redundant to use overt subject in these contexts, which does not have an influence on the grammaticality of the sentence as well.

Therefore, it violates the Informativeness/Economy Principle. Nevertheless, in contrastive focus or topic shifts contexts, absence of overt subject leads to strong violation since it violates the Manner/Clarity Principle. Simply, communication is disrupted on the grounds that the contrastive referent of subject, which must be known, is not overtly marked. This means that violation of topic-shift contexts (requiring overt subjects) is less unlikely than the violation of topic-continuity contexts (requiring null subjects).

This was the case in our study as well. The PPVH could account for the different interpretation of subjects in topic continuity-topic shift articulation. Given this, the L2 speakers of DNS and NNS languages were found to be more sensitive to topic-shift/contrastive focus contexts than to topic continuity contexts. In accordance with this, it was found that the participants did not correct the redundant use of overt subject in most cases since it only gives redundant information. However, they became gradiently more sensitive to employing overt subject in topic shift contexts as it would influence the communication. This even holds for the native speakers. It was claimed that native speakers are also likely to 'overdescribe than underdescribe'. (Engelhardt, Bailey & Ferreira, 2006; cited in Lozano, 2016, pp. 261-262). That is to say, it is possible for the native speakers to use redundant null subjects as well. The data of this study also proves this, where the comparison for the paired unacceptable conditions (Con3 vs. Con4) yielded statistically significant differences as well (Con3=5.75; Con4=5.11 out of 6 points). This finding also accounts for why the control group data statistically differed in some conditions.

This finding is also in line with the interaction of cognitive status of discourse referents with the null and overt subject distribution. Considering the topicality hierarchy stated by Ruhi (2002) (see section 2.5.2.1.), it becomes clear that overt subjects are more difficult to retrieve since they refer to unfamiliar and not activated information. On the other hand, null subjects are easy to retrieve since they represent familiar and activated information. Therefore, overt subjects need to be grammatically encoded in terms of information retrieval compared to null subjects, which also accounts for and verifies the assertions of the PPVH.

Given the findings of the QAT, which also questions the discourse-bound null and overt subject distribution in subject and object question-answer pairs, the results of this task also provide valuable information to make generalizations about the assertions of the previous discussions on the findings of the CGJT. The first salient finding has been the non-target like attainment of the appropriate use of discursive constraints by the L2 speakers in answers to questions which target

the subject and object of the clause. The insensitivity to topic continuity and topic shift constructions displayed by the L2 speakers is in the same direction with the results of the CGJT. Thereby, the assertions of the IH have been verified once again since the L2 groups – even the advanced speakers – did not fully attain the null and overt subject distribution at the syntax-discourse interface in the target answers. Similar to the findings of the CGJT, there are three issues that needs to be discussed:

(i) L1 transfer is not operative at the syntax-discourse interface

Further analysis reveals that the comparison of the same proficiency levels from the two typologically different language groups across each other did not yield different interpretations in the answers, which also validates the claim that L1 transfer is not operative at the syntax-discourse interface notwithstanding the fact that Japanese and Korean are DNS languages which have the same kind of discursive constraints as in Turkish. Therefore, the same arguments held for the findings of the CGJT can be restated. Moreover, it can be claimed that the findings of the QAT are in line with the aforementioned studies (e.g. Margaza & Bel, 2006; Sorace & Filiaci, 2006; Lozano, 2018; Margaza & Gavarro, 2020).

The results also suggest that the advanced speakers of both groups were not fully sensitive to the topic continuity-topic shift articulation realized as null or overt subjects in the target sentences. However, the differences in the performances of the advanced and intermediate speakers necessarily indicates interlanguage grammar development in accordance with the findings of the CGJT.

(ii) questions which target the subject of the sentence are more salient to comprehend

Parallel to the findings of the CGJT, L2 acquirers were more successful in choosing the appropriate subject in answers to the subject questions (Con1 and Con3) rather than the object questions (Con2 and Con4). As discussed before, subject questions require overt subjects in the answers whereas object questions necessitates the use of null subjects. When this finding is considered from the perspective of the PPVH, it became clearer why the L2 participants behaved in this way: Overt subject is more salient in discourse since it marks new information as required by the communicative needs (Quesada & Blackwell, 2009; Vallduvi & Engdahl, 1996). Without using it, the referent of subject would become ambiguous. However, marking subject overtly in

place of a null subject in topic continuity contexts either deliberately or not makes the use of overt subject 'overinformative', hence rendering it redundant. Therefore, despite not displaying native-like performance, the L2 speakers were more likely to avoid violating focused subject in topic shift/contrastive focus contexts than the null subject in topic continuity contexts. This is also evident in native speakers data, where they did worse in object-questions.

Overall, one can claim that the topic continuity-topic shift articulation in answers to questions is governed by the type of subject in the question. Accordingly, the present study found that the L2 participants were more sensitive to subject questions since the use of overt subject is more salient than to use null subject.

(iii) the grammatical position of subject does not constrain the discursive distribution of subjects

With respect to another aim of the study, it was also demonstrated that the discursive distribution of subjects as realized by the topic continuity-topic shift articulation is not constrained by the grammatical position of subject in the clause. To be more precise, the position of null and overt subject either in the simple / root clause or in the complex embedded clause did not make any difference as can be seen in the paired comparisons between Con1 vs. Con3 (embedded subject vs. simple clause subject) and Con2 vs. Con4 (embedded object vs. simple clause object) in which no statistical difference was observed in intragroup comparisons for each language group.

Unlike the above tasks in the study, the OPCT is framed to evaluate the syntactic constraints on the co-indexation between null and overt embedded subjects and different types of matrix antecedents in contextualized sentences. The findings of this task suggest that the syntax of null and overt subjects was acquired by the advanced L2 speakers and the NSP is reset. The present study found that unlike the features residing at the syntax-discourse interface, pure syntactic constraints can be acquired. In accordance with this, it can be claimed that the syntax of null and overt subjects is acquired before the discursive constraints; hence, this study supports the position held by the Syntax before Discourse Hypothesis (SBDH). Obviously, this finding is in line with what is asserted in L2 acquisition field (e.g. Perez-Leroux & Glass, 1999; Montrul & Louro, Rothman, 2009). The findings of no study in the field disprove that pure syntactic constraints can be attained and reset. Moreover, the studies which state that discursive constraints can be attained at the advanced level[22] also claim that syntax is acquired earlier than the discourse. Therefore, the

[22] Note that these studies support the FTFA.

findings of this task contributes to the research field from the L2 Turkish context by asserting that the co-reference interpretation of null and overt subjects in complex sentences can be acquired. Considering the above points, there appears to be four themes of discussion:

(i) intermediate speakers have displayed early sensitivity to the OPC constraints

Parallel to the findings of other OPC studies in the field, the present study argue that the OPC constraints can be acquired. Therefore, as expected, no difference was found between the speakers of DNS and NNS languages. This task was also applied to understand whether the L2 intermediate speakers displayed early sensitivity to the given co-reference interpretations or not. With respect to this, all the conditions and pairs indicated statistically significant differences when compared with the performance of the control group, necessarily indicating that the acquisition is not complete. However, the results of the intermediate speakers did not differ in Con2 and Con3, when compared with the performances of the advanced levels. Therefore, this finding suggests an early sensitivity to the OPC constraints displayed by the L2 intermediate acquirers.

Nevertheless, the intermediate speakers of the present study behaved differently from that of Rothman (2009). He found that one group of intermediate speakers did not acquire the OPC constraints whereas another group was found to be fully sensitive to the given principles and displayed native-like performance. In the light of this study, it can be argued that the intermediate group did not fully attain the given co-reference interpretations despite showing early sensitivity and behaved like the first group of intermediate participants in Rothman (2009).

(ii) the performance of speakers possibly mismatched with their competence in Con2

It was found that the performances of the L2 speakers were not perfect in the context of Con2[23]. This was also observed in other OPC studies as well. For example, Perez-Leroux and Glass (1999) found that even the native speakers performed OPC violations as well as the intermediate speakers. In another study, Rothman (2009) found out that the L2 intermediate group behaved differently with respect to the OPC constraints, in which some L2 speakers just failed to follow the OPC constraints consistently, yet some participants fully obeyed the syntactic rules. Therefore, one can claim that the score differences between the advanced speakers and the native

[23]This condition is framed with an overt subject in the embedded clause in the context of a quantified or wh-word antecedent. Note that overt subject cannot have a free variable reading unlike the other conditions.

speakers might be related to the 'performance mistakes'. As claimed by White (2003), in some cases, the individual data become more of an issue since the overall results of the groups can sometimes be misleading in L2 studies. Therefore, individual results should also be taken into consideration. With respect to this, when the individual scores from the Con2 were analyzed, no participants were observed to consistently violate all the OPC constraints at least in 2 questions. This leads us to argue that the given constraint was acquired by the L2 speakers despite divergences between competence and performance of the L2 speakers.

(iii) L2 speakers performed worse in Con4 compared to other conditions

The reason for the partial mismatch between the performances of the L2 speakers and the control group stemmed from the lower score performances attained by the L2 acquirers in Con4 (overt embedded subject / DP antecedent). As displayed in the statistical analyses, however, the L2 speakers had no problems when the type of embedded subject is null (Con3) in the context of a referential subject. Therefore, it can be argued that the L2 participants had deficits in interpretation between overt embedded pronoun and DP antecedent, which was also observed in other studies.

In her study investigating the syntax-discourse interface in L2 acquisition, Gürel (2006) claimed that L2 Turkish learners were less successful in co-indexation between overt embedded pronoun *o (s/he)* and DP matrix subject when compared to null embedded pronoun. This was the case for this study as well. Both L2 groups were less successful in co-interpretation between overt embedded subject *o (s/he)* and DP antecedent. As this distinction is discourse-bound – embedded *o (s/he)* might signal contrastive topic when it refers to antecedent, or else it signals contrastive focus – it might have consequences on the syntactic competence of the L2 learners.

Another compelling evidence comes from Rothman (2007), who investigated syntactic constraints on the acquisition of null and overt subjects. His data revealed that L2 learners reset the NSP, displaying native-like syntactic competence. However, in logical formation task, in which he conditioned the participants to formulate sentences containing either overt or null embedded pronoun, he found out that his subjects were less successful in contrastive topic environments, which he linked to deficits in discursive knowledge (Sorace, 2004; Montrul & Louro, 2006; cited in Rothman 2007, p. 301). He put it 'If indeed pragmatic competence emerges later than syntax, it follows that deficits in pragmatic knowledge can manifest as what appear to

be particular syntactic errors in performance.' Obviously, this quote supports the findings of the present study which claim that the L2 speakers are sensitive to syntactic conditions, yet deficits in discursive competence on the use of null and overt subjects can influence the syntax. It was also the case for native speakers, in which they derived some incorrect interpretations in Con4 (7.23 out of 8 times).

(iv) the syntax of overt subjects seems to be more difficult to acquire

Taking the above considerations into account, the two lines of discussion above lead us to argue that the L2 Turkish speakers seemed to have more deficits in interpreting the binding properties of overt pronouns in the present study, which was also the case in Gürel (2006). However, she linked this non-target like behavior of English L2 Turkish speakers to L1 transfer on the grounds that overt subjects can be bound to an antecedent without any syntactic constraints in English. Therefore, she argued that they transferred this property present in their L1 to their interlanguage. Given the findings of the OPCT in the present study, however, if English and German L2 speakers of Turkish performed differently in overt pronoun interpretations than the Japanese and Korean speakers, the results would be interpreted as supporting the issue of L1 transfer. Nonetheless, both groups of speakers behaved similarly in co-reference interpretations for the given conditions as expected by the OPC, given the fact that the same interpretive rules for overt subjects hold in Japanese and Korean as in Turkish. Therefore, one cannot claim that the poor performance of the L2 speakers with respect to overt pronoun interpretation resulted from L1 transfer.

Another account which might support the above finding comes from Sorace and Serratrice (2009) who claimed that overt subjects might require more processing efforts compared to null subjects especially when they are bound to antecedents. Therefore, both their production and interpretation might be inaccurate. This was also observed in a study by Alonso-Ovalle et al. (2002) across native Spanish speakers. They investigated anaphora resolution in contextualized sentences which have null or overt pronoun in the embedded clause, both of them have two potential antecedents (subject vs. object). They found that the participants selected the antecedent of null embedded pronoun as subject with a rate of 73.2 % whereas it was 50.2 % for overt embedded pronoun. Further, when there is only the subject interpretation available, the binding of null embedded pronoun was interpreted to be more appropriate than the overt pronoun. Therefore, they concluded that the preference for antecedent is not necessarily based on the available antecedents in the discourse; rather, null subjects are interpreted to have bound reading naturally. Considering the

finding of our study, the deficits of L2 participants in overt subject interpretations might be grounded in these accounts.

Another reason why the L2 data was not perfect in the context of overt subjects might be related with the methodology of this task. The task gave contexts before the target sentences and forced the participants to select either bound or disjoint interpretation. Therefore, those who did not follow the contextual information, might have answered otherwise since in order to disambiguate two different interpretations, participants had to rely on context to derive the correct interpretation, which is an extra processing burden on the L2 participants. Considering this, for future study, the OPCT might be applied without contextual information to discuss and compare the differences, if any.

Overall, it must also be noted that, when the performances of L2 acquirers (both the advanced and intermediate speakers) are compared, they did remarkably better in Con2 *in contra* Con4 as the descriptive data display. Therefore, the problems in interpretation of overt pronouns are more likely to have resulted from the discursive grounds rather than the pure syntactic one.

Gathering the findings of the three tasks, it was shown that the participants performed better in the OPCT than the CGJT and QAT. This is in line with the predictions of the IH and the studies in the field as well. As noted by Sorace and Serratrice (2009), the IH propounds that pure syntactic constraints can be attained unlike the discursive principles residing at the syntax-discourse interface. Considering this, although the results were not perfect as for the binding of overt pronouns in the OPCT, it can nevertheless be claimed that the co-indexation of null and overt embedded pronouns between different type of antecedents were attained by the L2 speakers. As the descriptive data also display, the same group of L2 speakers were more successful in rate differences in the co-interpretation task than the tasks assessing the syntax-discourse interface (the OPCT results: ADV-DNS= 83.5 %, ADV-NNS= 81 %, INT-DNS= 73,8 %, INT-NNS= 67,6 %; the CGJT results: ADV-DNS= 71.3 %, ADV-NNS= 63,9%, INT-DNS= 60,3%, INT-NNS= 51,5 %; the QAT results: ADV-DNS= 74.6 %, ADV-NNS= 70,8 %, INT-DNS= 64,3%, INT-NNS= 61,9 %). In accordance with these results, the findings of the present study also validate the assertions of the SBDH. Therefore, it can be claimed that it holds in L2 Turkish as well since the L2 acquirers were more successful in a task assessing the syntax of subjects in contrast to the discursive distribution of subjects.

Taking the above discussions into account, a number of points should also be discussed in relation to the reasons for the conflict with the studies supporting either the IH or the FTFA. In other words, the question why the interpretation of topic continuity and topic shift constructions on the choice to employ null and overt subject in L2 studies differ needs to be properly addressed and discussed.

With respect to this, the FTFA argues that L2 participants rely on L1 transfer and fully access to UG to reset the NSP parameter. The direct consequence of this perspective is that L2 speakers can attain the syntax-discourse interface which regulates the null and overt subject distribution. Unlike this, the main assertion of the IH in terms of the syntax-discourse interface is that it posits learnability challenges for L2 learners to acquire the pragmatic principles of null vs. overt subject distribution irrespective of the L1 of the speakers. One plausible explanation for this is the processing costs of the syntax-discourse interface. As stated by Sorace and Serratrice (2009), the combination of syntactic information with discursive knowledge leads to heightened processing costs compared to the information present only in the syntax, which is also operative at the native grammars. In other words, the syntax-discourse interface requires more processing efforts than purely syntactic knowledge. In the light of the current study, this assertion was also observed in L2 Turkish and even the native speaker judgments were inaccurate in certain conditions, which might also account for why languages with different typologies behaved similarly. Regarding this, Belletti et al. (2007) argued that non-target use of overt subjects in L1 English - L2 Italian speakers was not caused by the L1 of the participants, where overt subjects need to be used syntactically; rather, it was caused by the problems of mapping syntactic knowledge onto the conceptual knowledge regardless of the L1 of the acquirers. Similarly, the present study is in line with those accounts which deemphasize the role of L1 transfer since the DNS speakers did not perform better than the NNS speakers. However, the reason why ultimate attainment did not take place and in what ways this pertains to processing difficulties should be accounted for explicitly. Therefore, future research should address this question by studies which try to assess how the features at the syntax-discourse interface is processed in online-tasks to better understand the processing effects on the interpretation of subjects.

Another explanation for the vulnerability of syntax-discourse interface might relate to the deficits in the functional categories responsible for topic continuity-topic shift articulation. For example, Sorace (2004; cited in Lozano, 2006, pp. 390-391) put forward the idea that interpretable features like topic (signaling topic continuity) and focus (signaling topic shift) are the reasons for the learnability problems at this interface. As they are ‘unspecified’ between the computational

(syntax) and conceptual system (discourse), they cannot be read by the conceptual system since they are 'unspecified'. Another perspective regarding the difficulties residing at the syntax-discourse interface comes from Lozano (2006) who claimed that the interpretable features are available to L2 speakers unlike what Sorace (2004) asserted; hence, the interpretable features of focus cannot be the locus of this deficit. Accordingly, he argued that the deficits in focus constructions result from the computational system itself, which is the 'uninterpretable feature of the focused head', where it cannot raise to [Spec, FocP] to check the EPP. Therefore, he concluded that topic shift constructions cannot be grammaticalized appropriately due to the uninterpretable functional focused head. This led him to discuss this finding in relation to the Failed Functional Features Hypothesis, (Hawkins & Chan, 1997; Hawkins, 2000), – a version of the Interpretability Hypothesis – which posits that uninterpretable functional features are not readily available to L2 speakers. Although the current study did not make a special reference to functional categories and features in terms of topic continuity-topic shift articulation, the results of the present study could be interpreted from this perspective as well since there are learnability problems among the DNS and NNS speakers at the syntax-discourse interface. Nevertheless, what Lozano (2006) claimed cannot account for why the L2 speakers of DNS and NNS languages treated the unacceptable topic continuity and topic shift constructions differently. Therefore, more research is needed to fully account for the differences in deficits in relation to functional categories and features.

Taking the above points into account, one issue that needs to be discussed is the methodological considerations. All studies assessing the syntax and discourse of null and overt subjects perform different types of experiments to fetch data. Not surprisingly, the data have been gathered from L2 speakers either by data production or data interpretation in the L2 field. As for the data production, experiments mostly gather elicited data by oral tasks (e.g. Montrul & Louro, 2006) or force the participants to produce structures in the target grammar (e.g. Margaza & Bel, 2006). Regarding the data interpretation, studies apply grammaticality judgements tasks (e.g. Rothman, 2009), co-reference judgement tasks (e.g. Lozano, 2016), or picture-selection tasks (e.g. Gürel, 2006) on the interpretation of target structures. Obviously, as White (2014, p. 41) put it 'no single methodology is appropriate for investigating all aspects of linguistic competence'. Considering this, one possible problem for the methodology of the studies is that they are designed to assess either production or interpretation[24]. One can also claim that certain tasks might pose certain challenges for L2 learners, which lead them to produce or interpret incorrectly in the performance despite attaining knowledge in the competence. It might be further argued that as the

[24] Note that Rothman (2009) and Gürel (2006) applied the both types.

methodologies of L2 studies differ, this might be reflected in the results as well, which was also noted by Ayoun (2003) who stated that the performances of L2 speakers might differ depending on the type of task. He even argued the possibility that the performances of L2 speakers might yield differences even when the same type of task with different patterns is applied.

Furthermore, the same experimental design might yield different results as well. As stated before, the current study adopted the CGJT from Rothman (2009). He found that the advanced L2 Spanish speakers of English attained the discursive regulations, yet in the same task, the L2 Turkish speakers of the present study were not sensitive to given constraints. In other words, it can be claimed that the tasks designed with the same methodologies might present different results with different language pairs. Therefore, the same methodologies should be studied over different L1 and L2 pairs to fully understand the reason why the results differed with different language groups.

Another point that needs to be raised is the individual differences. There might be individuals who perform consistently better or worse in the tasks. As Rothman (2009) found, his intermediate group did not display sensitivity to the OPC constraints. However, on close inspection, he realized that some participants attained the given constraints, which led him to claim that a group of intermediate participants completely failed to acquire the OPC constraints. Regarding this, it can be argued that, as White (2003, p. 55) put it, 'group results can be misleading', which might affect the results otherwise. In the context of the present study, it was also found that individual data should also be taken into consideration. Considering the OPCT, although the DNS and NNS speakers performed differently from the control group in Con2, it was claimed that no L2 speaker consistently violated all the target structures.

Although, the present study had advanced speakers at the C1 proficiency level, the studies supporting the validity of the IH differ in terms of what constitutes the 'advanced' level. That is, in some studies it was tested with near-native advanced speakers (corresponding to C2 proficiency; e.g. Sorace &Filiaci, 2006; Belletti et al. 2007), yet in some studies the participants were at the C1 level of advanced proficiency (e.g. Margaza & Bel, 2006). Furthermore, there are studies which had both levels of advanced speakers as well (e.g. Lozano, 2018). These studies independently found that the assertions of the IH might apply to both C1 and C2 proficiency levels. Interestingly, however, two groups of advanced speakers in Montrul and Louro (2006) behaved differently. The advanced speakers displayed less target-like behavior than near-natives.

As a result, they thought that the FTFA is operative at the syntax-discourse interface, as the performances of the near-native speakers were native like. However, if the study had only advanced speakers at the C1 proficiency level, the findings would support the IH. Anyway, it is clear that the IH does not hold among the intermediate speakers. Some interlanguage grammar can be seen through exposure to target grammar but the pragmatics of null vs. overt subject distribution cannot be fully acquired.

Overall, the current study contributed to the current discussions from the L2 Turkish context and favored the assertions of the IH. It also made valuable contribution to the field by asserting that L1 transfer does not play a role in discourse-bound realization of subject acquisition by the typologically different language groups, which necessarily refutes the claims of the Full Transfer approaches. Further, the study also found that the SBDH holds in L2 Turkish as well. With respect to this, more study needs to be done with different language pairs and with different methodologies to figure out why there is a conflict between the studies supporting either the IH or the FTFA and why the syntax-discourse interface seems to be vulnerable. Moreover, as most of the studies on this topic is off-line, online-tasks should also be carried out to pinpoint the processing difficulties, if any.

CONCLUSION

This part restates the findings with an emphasis on the significance of the present study. It discusses the findings in relation to the research questions. Then, further suggestions are made regarding the future work on L2 acquisition of null and overt subjects.

The recent accounts of whether the interface properties can be acquired or not have been the center of research in L2 studies. The discussions over the L2 acquisition at the syntax-discourse interface contributed a lot to research in this field and continue to do so with the recent and on-going studies. Accordingly, the future research into the discursive constraints of subject distribution will unfold the discussions of how successful acquisition is claimed to be attained or how it has been claimed that the end state grammars have failed to acquire the discursive principles. This tension encapsulated respectively as Full Transfer / Full Access Hypothesis and Interface Hypothesis present their arguments as to whether the principles residing at the syntax-discourse interface can be acquired or not. Therefore, each study focusing on this aspect in the field tries to predict whether L2 learners attained the target grammar or not.

Bearing this in mind, the current study tried to contribute to the field by investigating the acquisition of null and overt subjects by emphasizing the role of topic continuity-topic shift articulation onto the realization of subject distribution at the syntax-discourse interface. Different from the studies in the field and as a novel contribution to the field, the study included Korean and Japanese (representing discourse null subject group) and English and German (representing non-null subject group) L2 Turkish speakers at the intermediate and advanced levels to discuss the L2 acquisition of null and overt subjects with regard to the NSP typology, particularly focusing on the issues of L1 transfer. It also discussed whether the formal constraints determining the co-reference relation between embedded (null and overt) and matrix subjects (quantified/wh-word and lexical DP) are acquired earlier than the acquisition of topic continuity-topic shift realization, which is formulated as the Syntax before Discourse Hypothesis.

In the light of the findings of the study, the results revealed target-deviant performances by the L2 speakers of both learner groups and proficiency levels with respect to the interface properties governing the use of null and overt subjects. In that way, the findings were found to be compatible with the studies supporting the Interface Hypothesis. Accordingly, the interface between syntactic knowledge and conceptual / discursive knowledge leads to problems for L2 speakers to process

the principles which take place at this interface. Although the study did not particularly focus on the possible processing difficulties of this interface, future work on online processing at the very same interface will indicate how L2 speakers process the information that determines the choice to employ null or overt subject and will answer the question why this interface is considered to be problematic.

Drawing on the languages with different typologies, the study also discussed the L1 transfer effects at the syntax-discourse interface. Bearing this in mind, since the DNS languages have the same discursive rules as in Turkish and the NNS does not make a selection between null and overt subjects, this typological difference between languages brings forth valuable findings to the issue of L1 transfer. Accordingly, the findings hinted that no difference was observed in the behavior of L2 speakers on acquiring the discourse of null and overt subject distribution. Therefore, L1 transfer cannot account for the similar performances displayed by the DNS and NNS speakers. This finding also refutes the claims made by the Full Transfer Models. Considering this, it can be justifiably argued that the syntax-discourse interface presents learnability challenges or difficulties for any L1 pairs. Obviously, the future study on different language pairs or language groupings will enhance the debates as to why L1 transfer does not hold at this interface.

Similar to the research into the formal constraints on the null and overt subjects, the current study also claimed that the syntax of formal constraints that govern the co-indexation between subjects of the embedded and matrix clause was acquired earlier than the such discursive constraints as topic continuity and topic shift. However, the study also found target-deviant performances with respect to the interpretation of the overt pronoun in Turkish. It also proposed that interpretation of formal properties might be intervened by the additional contextual knowledge, which might lead to the difficulties of interpretation. Considering this, future studies assessing the formal properties of subjects within and without a context, might reveal how contextual information influences the way that co-reference relationships will be interpreted and how the interpretation of overt subjects will change by the L2 speakers.

Another contribution of this study to the field is the claim that the Overt Pronoun Constraint holds in Turkish. The assertions that overt embedded pronoun *o (s/he)* cannot be bound to a lexical subject were refuted with the native speakers data. Depending on the topic continuity-topic shift articulation, the study displayed that *o (s/he)* can be bound to a lexical antecedent to have a contrastive topic reading in topic continuity contexts; elsewhere, it signals contrastive focus

reading in topic shift contexts. Pertaining the aims of the present study, *kendisi (self-3SG),* as a pronominal, which has different binding properties, was not incorporated into the study. Further studies are needed to understand how the interpretation of *kendisi (self-3SG)* changes in the context of the OPC, given the contextualized sentences.

The study also found that topic continuity-topic shift articulation was not violated equally by the L2 Turkish speakers. This finding also provides valuable insights into how information structure interacts with the realization of null vs. overt subjects. Since overt subjects carry more information than null subjects, the underuse of overt subjects in topic-shift contexts is less tolerable than using redundant overt subjects with respect to the efficacy of communication since overt subjects convey new information. In that way, this finding also emphasizes the interaction of cognitive status of discourse referents with the choice to employ null or overt subjects.

Considering the above-mentioned points, the findings of the study are discussed in relation to five research questions below:

1. Do the the intermediate and advanced L2 Turkish learners of discourse null subject and non-null subject languages acquire the discursive constraints on the use of null and overt subject distribution at the syntax-discourse interface?

   The intermediate and advanced L2 Turkish acquirers of two typologically distinct language groups were found to be insensitive to the pragmatic constraints that regulate the distribution of subjects. This finding is in line with the studies that support the Interface Hypothesis and refutes the claims made by the Full Transfer / Full Access Hypothesis since the given constraints were not fully attained by the L2 Turkish speakers. This finding applies to both group of languages (discourse null subject and non-null subject). Accordingly, it can be claimed that the syntax-discourse interface leads to learnability problems and it is a vulnerable field even for the advanced learners in L2 Turkish.

2. What are the possible influences of L1 transfer on L2 acquisition in terms of discursive constraints of null and overt subject distribution among the intermediate and advanced L2 Turkish acquirers of discourse null subject and non-null subject languages?

Although descriptive results indicated that discourse null subject (DNS) language speakers were more successful than the null subject language (NNS) speakers in the mean score performances considering the Contextualized Grammaticality Judgement Task (CGJT) and the Question-Answer Task (QAT), the statistical analysis revealed no significant difference between these learner groups. Therefore, one can claim that both groups of language speakers displayed the same performances and were not successful in acquiring the given pragmatic constraints. Considering this, the influence of the L1 onto the target grammar was not observed as no distinction existed between the groups although the DNS speakers have the same constraints available in their mother tongues. In other words, the DNS speakers did not transfer the principles associated with topic continuity-topic shift articulation into their interlanguage. Clearly, these findings suggest that L1 transfer is not operative at the syntax-discourse interface, which poses certain challenges to L2 speakers regardless of their L1.

3. Are syntactic constraints acquired earlier than the discursive features governing the use of null and overt subject distribution among the intermediate and advanced L2 Turkish learners of discourse null subject and non-null subject languages?

   The results from the three tasks showed that syntactic constraints were not acquired together with the discursive constraints - in fact, the pragmatics of subject distribution was not acquired by the L2 speakers at all. Both L2 speakers and proficiency levels irrespective of the learner groups performed better in the Overt Pronoun Constraint Task (OPCT) than the CGJT and QAT. Although the results were not perfect, it can be argued that the advanced L2 Turkish speakers attained the co-interpretation features between the subjects of matrix and embedded clauses. Considering the intermediate speakers, they did not reach at the performance of the native speakers. Nevertheless, they displayed the same performance with the advanced speakers in certain conditions particulary in the contexts in which overt embedded subject cannot take quantified antecedent, suggesting that they displayed early sensitivity to the formal constraints.

4. Are there any constraints for the intermediate and advanced L2 Turkish speakers of discourse null subject and non-null subject languages in acquiring such discursive constraints as topic continuity and topic shift?

When the acceptability of null and overt subjects was compared with the illicit forms of their underuse and overuse in the contextualized target sentences, both L2 speakers and proficiency levels were found to violate topic continuity and topic shift constructions. However, the violation was not equal for the unacceptable topic continuity-topic shift realization. L2 participants were found to violate more in the contexts which signal topic continuity than the contexts which create the topic shift. In other words, they performed worse when they were given a topic continuity context and asked to omit the redundant use of overt subject than the topic shift contexts in which null subject is employed inappropriately. This finding is also valid for the native speakers. Considering the proficiency levels, the advanced speakers performed better than the intermediate speakers, which displayed interlanguage grammar development.

With respect to this, the finding can be evaluated within the perspective of Pragmatic Principles Violation Hypothesis (PPVH), which stated that redundant use of overt subject violation does not break down the communication whereas the underuse of overt subject in topic shift contexts breaks down the communication as it is the focal unit in the sentence. Therefore, the contexts which require overt subjects tend to be less violable.

6. Do the intermediate and advanced L2 Turkish speakers of discourse null subject and non-null subject languages interpret topic continuity and topic shift constructions appropriately in answers to simple and complex wh-questions which target the subject and object of the clause? Does the position of subject either in the complex embedded or simple clause constrain the acquisition of topic continuity and topic shift constructions?

The QAT showed that both groups of L2 speakers and proficiency levels were not capable of interpreting topic continuity and topic shift constructions appropriately in answers to both subject and object wh-questions. Considering the proficiency levels, the advanced speakers performed better than the intermediate groups as expected. This finding is in the line with the findings of the CGJT, where the L2 speakers did not fully acquire the topic continuity-topic shift distinction as well. The findings of the QAT also suggested that L2 speakers were more successful in topic shift (requiring overt subjects) than the topic continuity constructions (requiring null subjects). Therefore, it can be claimed that the L2 speakers were more sensitive to subject-questions which require overt subjects in the answers. This finding also supports the assertions of the PPVH, as the L2 speakers were found to less violate subject-

questions than the object questions, although no ultimate attainment of both constructions was achieved.

Finally, when the performances of L2 speakers on different subject positions were compared – complex wh-question targeting the subject (Con1) vs. simple wh-question targeting the subject (Con3) / complex wh-question targeting the object (Con2) vs. simple wh-question targeting the object (Con4) – no difference was discerned among the groups. This finding necessarily indicates that the position of subject either in the complex embedded clause or in the root clause does not constrain the acquisition of the given properties.

Having discussed the findings of the study in relation to research questions, a number of suggestions which might direct the future studies in the field can be put forward:

1. The IH should be tested in the future with different L1 pairs and with different methodologies to understand the role of the selected L1 pairs or research methodologies in order to compare the results with the studies in the field. Bearing this in mind, as a third learner group, L2 participants from the agreement null subject languages such as Spanish, Italian, or Greek should be included in the study to compare the performances of the three learner groups acquiring L2 Turkish.

2. Future study should account for why the topic-continuity constructions also present some problems to native speakers as well as the learner groups. Studies would reveal whether the problems are caused by the interface related properties or some general cognitive difficulties of human mind in comprehending these structures. Therefore, the tasks should also be applied to native speakers in different contexts.

3. Since the findings of the studies are framed depending on which 'advanced' proficiency is selected, the future work should also incorporate different advanced proficiency levels and test the IH among the lower advanced (C1) and near-native proficiency (C2) to compare any differences between these levels. Moreover, following the research tradition in the field, other than the L2 learners, bilinguals and children should also be tested in Turkish in order to understand how the syntax and discourse of null and overt subjects is acquired to understand whether the syntax-discourse interface is a vulnerable field for these speakers as well.

4. Future study should also include tasks that hinge upon the L2 speakers' production of natural data such as narration. There should be online tasks as well to understand how the interpretation of topic continuity-topic shift articulation and how topic continuity and topic shift in different grammatical positions are processed in online tasks such as self-paced reading or eye-tracking.

5. In order to verify the findings that interface related problems cause learnability problems for the DNS and NNS speakers, syntax-discourse interface should also be studied from other perspectives as well such as word-order changes or topicalization. Besides this, other interfaces such as syntax-semantics and syntax-morphology should also be studied in L2 Turkish and the findings from these interfaces should be compared with the findings from syntax-discourse interface to fully understand how L2 acquirers attain at the linguistic principles residing at the interfaces.

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APPENDIX 1

CONSENT FORM

GÖNÜLLÜ KATILIM FORMU

Bu çalışma Hacettepe Üniversitesi İngiliz Dilbilimi Bölümü'nden Prof. Dr. Işıl Özyıldırım danışmanlığında Arş. Gör. Oktay Çınar tarafından yürütülmekte olan doktora tezinin bir parçasıdır. Bu belge ise sizi bu çalışma ve çalışmaya katılım koşulları hakkında bilgilendirmek için hazırlanmıştır.

Çalışma Türkçeyi ikinci dil olarak edinen yetişkin bireylerin Türkçeyi kullanımlarını dilbilimsel olarak incelemektedir. Bu doğrultuda sizden beklenen aşağıda verilmiş bölümlere ait açıklamaları dikkatle okumanız ve ilgili soruları size en doğru gelecek şekilde değerlendirip en uygun cevabı işaretlemenizdir. Anket sonunda çalışmayla ilgili her türlü sorularınız cevaplanacaktır.

Çalışmaya katılmak ve anket sorularını cevaplamak tamamen gönüllülük esasına dayalıdır. Çalışma için Hacettepe Üniversitesi Etik Komisyonu'ndan onay alınmıştır. Araştırma kapsamında sizlerden toplanacak veriler sadece bilimsel amaçlar doğrultusunda kullanılacak ve kişisel bilgileriniz gizli tutulacaktır.

Veri toplama sürecinde size rahatsızlık verebilecek herhangi bir soru bulunmamaktadır. Ancak katılım sırasında sorulardan ya da herhangi başka bir nedenden ötürü kendinizi rahatsız hissederseniz cevaplamayı yarıda bırakıp çıkabilirsiniz.

Şimdi ya da daha sonra çalışma hakkında daha fazla bilgi almak için Hacettepe Üniversitesi İngiliz Dilbilimi Bölümü'nden Arş. Gör. Oktay Çınar ile iletişime geçebilirsiniz.

Gönüllü formundaki tüm yazılı açıklamaları okudum ve sözlü olarak araştırmacıdan her türlü bilgiyi aldım. Araştırmaya gönüllü olarak katıldığımı onaylıyorum, dilediğim zaman yarıda kesip çalışmadan ayrılabileceğimi, araştırmacı tarafından çalışmadan çıkarılabileceğimi biliyorum. Araştırma kapsamında verdiğim bilgilerin bu çalışma dahilinde ve bilimsel amaçlı yayınlarda kullanılmasını kabul ediyorum.

Tarih:

Katılımcı:

Adı, soyadı:
Adres:
Tel:
İmza:

Araştırmacı:

Adı-Soyadı: Araştırma Görevlisi Oktay Çınar
Adres: Hacettepe Üniversitesi, Edebiyat Fakültesi, İngiliz Dilbilimi Bölümü, Beytepe, Çankaya
İş Tel: 0312 297 85 25
Cep Tel: 0534 917 94 30
E-posta: oktaycinar@hacettepe.edu.tr
İmza:

Lütfen aşağıdaki bilgileri kısaca doldurunuz.

1. Kaç yaşındasınız?

……..

2. Cinsiyetiniz nedir?

……..

3. Anadiliniz nedir?

……..

4. Mesleğiniz nedir?

……

5. Eğitim durumunuz nedir?

……

6. Türkiye'de daha önce yaşadınız mı ? Cevabınız evet ise 7. soruyu cevaplayın.

……...

7. Kaç yıldır Türkiye'de yaşadığınızı kısaca açıklayınız.

……...

8. Türkçeyi nerede öğrendiniz? Kısaca açıklayınız.

……..

9. Türkçe dil belgeniz var mı? Varsa hangi tarihte aldınız? Kısaca açıklayınız.

……..

10. En son almış olduğunuz dil belgesine göre Türkçe dil düzeyiniz nedir? Sizle ilgili alan ya da alanları işaretleyiniz.

Temel I	☐	A1	☐
Temel II	☐		
Temel III	☐	A2	☐
Temel IV	☐		
Orta I	☐	B1	☐
Orta II	☐		
Orta III	☐		
Orta IV	☐		
Yüksek I	☐	B2	☐
Yüksek II	☐		
Yüksek III	☐	C1	☐
Yüksek IV	☐		

Diğer (Lütfen açıklayınız) : ……..

11. Türkçeyi kaç yıldır öğreniyorsunuz?

……...

12. Türkçeyi kaç yaşında öğrenmeye başladınız?

……

13. Türkçe dışında başka dil ya da diller biliyor musunuz?

……

APPENDIX 2

TASKS IN THE STUDY (ENGLISH VERSION)

1.THE OVERT PRONOUN CONSTRAINT TASK

BÖLÜM I
Lütfen aşağıda *italikle* yazılmış durumları dikkatlice okuyunuz ve **verilen durumu dikkate alarak 'Tümce'** ibaresinin yanında görmüş olduğunuz tümceler ile ilgili her bir soruyu cevaplayınız. Her iki cevabın da doğru olabileceğini düşünüyorsanız iki seçeneği de işaretleyiniz.

Read each of the contexts written in *italics* carefully and **taking the contexts given into consideration,** answer each of the questions relating to the sentences next to the expression **'Tümce'**. If you think that both answers would be true, mark both options.

Örnek: *Özgür ve Deniz bir proje yönetmeye karar verdi. Ofisteki herkes onlara çok güveniyor ve başarılı olacaklarından eminler.*

Sample Question: *Özgür and Deniz have decided to run a project. Everyone in the office feels confident about them and are sure that they will succeed.*

Tümce: Herkes başarılı olacağını biliyor.

Yukarıdaki tümceye göre kim başarılı olacak olabilir?

a) Herkesle aynı kişi b) Herkes dışında başka birileri

Açıklama: Yukarıdaki tümceyi okuyup durumu dikkate aldığınızda, **Ofisteki herkesin Özgür ve Deniz'in başarılı olacağını bildiği anlaşılmaktadır**. Bu yüzden de doğru cevap, b) **Herkes dışında başka birileri (Özgür ve Deniz)** olacaktır.

Explanation: Upon reading the sentence by taking notice of the context, it becomes clear that **Everyone in the office** knows that **Özgür and Deniz** will succeed. Therefore, the correct answer will be the option b) **Herkes dışında başka birileri (Özgür ve Deniz).**

1. *Kemal Sunal birçok sinema oyuncusunu etkilemiş önemli bir kişidir. Ölümünden sonra bile oynadığı filmler herkes tarafından beğeniyle izlenmektedir. Bu konuyla ilgili, yerel bir gazete popüler sinema oyuncularıyla bir röportaj yaptı.*
Kemal Sunal is an important figure who has influenced many cinema artists. Even after his death, his films are being watched with great pleasure. With respect to this topic, a local paper had an interview with the popular cinema artists.

Tümce: Her oyuncu tüm zamanların en iyi oyuncusu olduğunu belirtti.

Yukarıdaki tümceye göre kim tüm zamanların en iyi oyuncusu olabilir?
a) Her oyuncu b) Her oyuncu dışında başka biri

2. *Arkadaşım Ebru Türkçe dilbilgisi konusunda çok iyidir. Dün Türkçe dilbilgisi ödevimle ilgili anlamadığım birkaç yer vardı. Tesadüfen, bu sabah Ebru'yu kütüphanede gördüm. Ebru'ya birinin bu konuda bana yardımcı olup olamayacağını sordum.*
My friend Ebru is quite good at Turkish grammar. Yesterday, there were some points that I did not understand about my homework on Turkish grammar. Luckily, I have seen Ebru at the library this morning. I asked Ebru whether someone can help me with this topic or not.

Tümce: Ebru onun Türkçe dilbilgisi ile ilgili herşeyi bildiğini ve endişelenmemem gerektiğini söyledi.
Yukarıdaki tümceye göre kim Türkçe'nin dilbilgisi ile ilgili herşeyi biliyor olabilir?

a) Ebru b) Ebru dışında başka biri

3. *Dün çalışanlarla yapılması planlanan toplantı yönetim tarafından iptal edildi. Yöneticiler bu durumun kendilerini zor duruma soktuğunu biliyor.*
The meeting with the employees that was supposed to be held yesterday was called off by the management. Managers know that this situation has put them in a difficult position.

Tümce: Herkes onların haksız olduğunu düşünüyor.
Yukarıdaki tümceye göre kim haksız olabilir?
a) Herkesle aynı kişiler b) Herkes dışında başka birileri

4. *Mert ile Hasan kafede oturuyorlardı. Daha sonra yanlarına Ali ve İstanbul'da yaşayan kız arkadaşı Ayşe geldi ve birlikte sohbet ettiler. Ali çok mutluydu. Mert ile Hasan nedenini sordu. Ali onlara İstanbul'daki iş için mülakata çağrıldığını söyledi.*
Mert and Hasan were sitting in a cafe. Then, Ali and his girlfriend Ayşe living in İstanbul just turned up and all of them had a chat. Ali seems quite happy. Mert and Hasan asked why. Ali told them that he had been called for an interview for the job in İstanbul.

Tümce: Ali yakında İstanbul'a gideceğini söyledi.
Yukarıdaki tümceye göre kim yakında İstanbul'a gidecek olabilir?

a) Ali b) Ali dışında başka biri

5. *Ayşe matematik ödevini yapmadığı için tedirgindi ve bu durumu sınıf arkadaşlarına da söyledi. Öğretmen sınıfa girdiğinde 'Ödevini yapamayan var mı' diye sordu. Sınıftan ses çıkmadı.*
Ayşe was anxious about the fact that she hadn't done her homework on maths and told her classmates about this. Upon entering the classroom, the teacher asked 'Who couldn't do the homework'. The class kept silent.

Tümce: Hiçbir öğrenci ödevini yapmadığını söylemedi.
Yukarıdaki tümceye göre kim ödevini yapmayan olabilir?
a) Hiçbir öğrenci (Sınıftaki herkes) b) Sınıftaki başka biri (Ayşe)

6. *Emre geç saate kadar ders çalıştığı için bu sabah uyanamadı. Bu yüzden oda arkadaşı Ali onu uyandırmak istemedi.*
Since he studied late Emre could not wake up this morning. Therefore, his roommate Ali did not want to wake him up.

Tümce: Ali onun yorgun olduğunu düşünüyor.
Yukarıdaki tümceye göre kim yorgun olabilir?
a) Ali b) Ali dışında başka biri

7. *Müdürün okula yeni gelenlere karşı ön yargısı olduğu açıktır. Müdür bu hafta stajyerlerin sınıfını sık sık kontrol etti.*
It is obvious that the principal has a bias against the newcomers. He has regularly inspected the class of the trainee teachers this week.

Tümce: Stajyerler haksızlığa uğradığını düşünüyor.
Yukarıdaki tümceye göre kim haksızlığa uğrayan olabilir?

a) Stajyerler b) Stajyerler dışında başka birileri

8. *Geçen ay tüm sınıf okulda düzenlenen kısa hikaye yazma yarışmasına katıldı. Sinem sonuçları sabırsızlıkla bekliyordu. Ancak yarışmayı yan sınıftan biri kazandı. Öğretmen sınıfa sordu:*
Last month, the whole class attended the short story-writing competition held at the school. Sinem was waiting impatiently for the results. However, someone from the other class had won the competition. The teacher asked the class:

Tümce: Kim onun yarışmayı kazandığını size söyledi?
Yukarıdaki tümceye göre kim yarışmayı kazanmış olabilir?
a) Kim ile aynı kişi b) Kim dışındaki başka biri

9. *Ebru ile Kayhan dönem sonunu kutlamak için piknik yapmak istedi ve bunu sınıfla da paylaştı. Daha sonra, tüm sınıf piknik yapmaya karar verdi ve öğretmenlerini de pikniğe çağırdılar. Öğretmen piknik için ne getirileceğini tüm sınıfa sordu.*
Ebru and Kayhan decided to have a picnic to celebrate the end of the semester and shared this with the class. Afterwards, the whole class decided to have a picnic and invited the teacher as well. The teacher asked the whole class what to bring for the picnic.

Tümce: Herkes piknik için bir şey getireceğini öğretmene söyledi.
Yukarıdaki tümceye göre kim piknik için bir şey getirecek olabilir?
a) Sınıftaki herkes b) Herkes dışında başka birileri (Sınıftan başka birileri)

10. *Öğrenciler bu sene üniversite sınavına çok çalıştı. Kemal ise çok çalışmasına rağmen başarılı olacağından emin değil.*
The students have studied hard for the university entrance exam. Although he has studied a lot Kemal is not sure that he will pass the exam.

Tümce: Her öğrenci onun başarılı olacağını biliyor.
Yukarıdaki tümceye göre kim başarılı olacak olabilir?

a) Her öğrenci
b) Her öğrenci dışında başka biri (Sınıftan başka biri)

11. *Mary ve John Türkçe öğrenmek için Türkiye'ye geldiler. Aileleri daha önce Türkiye'de yaşadıkları için Türkçe konuşabiliyor ve onların da Türkçeyi öğrenmelerini istiyor.*
In order to learn Turkish Mary and John settled in Turkey. Since their parents have lived in Turkey before they can speak Turkish and want them to learn Turkish as well.

Tümce: Aileler Türkçeyi çok çabuk öğreneceklerini biliyor.
Yukarıdaki tümceye göre kim Türkçeyi çok çabuk öğrenecek olabilir?
a) Aileler
b) Aileler dışında başka birileri

12. *Dün akşam yemeğini Ayşe yerine Özge'nin hazırladığını görünce çok şaşırdım.*
I was astonished to see that Özge prepared dinner instead of Ayşe last night.
Tümce: Ayşe onun hazırlayacağını söylemişti.

Yukarıdaki tümceye göre kim yemeği hazırlayacak olan olabilir?
a) Ayşe
b) Ayşe dışında başka biri

13. *Can ile Ayşe yaz tatilinde İngiltere'ye gitmek istiyordu. O sırada İngiltere vizesi almaya çalışan arkadaşları onlara vize almanın zorluklarını anlattı ve vizenin gerekli olmadığı bir ülkeye gitmelerini önerdi.*
Can ve Ayşe wanted to go to the UK for summer. Meanwhile, their friends who were trying to receive UK visa told them about the difficulties of getting visa and suggest them to go to another country where visa is not required.

Tümce: Kimse onların İngiltere'ye gidebileceklerine inanmıyor.
Yukarıdaki tümceye göre kim İngiltere'ye gidebilecek olabilir?
a) Kimse ile aynı kişiler (Can ile Ayşe'nin arkadaşları)
b) Kimse dışında başka birileri (Can ile Ayşe)

14. *Öğrencilerin rol aldığı tiyatro gösterisi öğretmenler ve aileler tarafından ayakta alkışlandı. Herkes gösteriyi çok beğendiği için öğrenciler mutlu bir şekilde salondan ayrıldı.*
The theater performance of the students was applauded loudly by the teachers and the families. Since the audience appreciated the performance the students left the hall happily.

Tümce: Öğretmenler çok başarılı olduklarını düşünüyor.
Yukarıdaki tümceye göre kim çok başarılı olabilir?

a) Öğretmenler
b) Öğretmenler dışında başka birileri

15. *Dün eve dönmek için otobüs durağına gittiğimde Ufuk ile Ahmet'i otobüs beklerken gördüm. Ahmet ile daha sonra aynı otobüse bindik ve yol boyunca Ufuk hakkında sohbet ettik.*
When I get to the bus station on my way home I saw Ufuk and Ahmet waiting for the bus. Afterwards, we got on the same bus with Ahmet and talked about Ufuk all the way.

Tümce: Ahmet onun kız arkadaşına evlenme teklifi ettiğini ve yakında evleneceklerini söyledi.
Yukarıdaki tümceye göre kim kız arkadaşına evlenme teklifi etmiş olabilir?
a) Ahmet b) Ahmet dışında başka biri

16. *Öğretmen seneye 18 yaşına girecek öğrencilerine sordu:*
The teacher asked his students who will turn 18 next year:
Tümce: Kim 18 yaşına girdiğinde oy kullanma hakkına sahip olduğunu biliyor?

Yukarıdaki tümceye göre kim 18 yaşına girdiğinde oy kullanma hakkına sahip olabilir?
a) Kim ile aynı kişiler (Sınıftaki öğrenciler)
b) Kim dışında başka birileri (Sınıftaki öğrenciler dışında başka birileri)

2.THE CONTEXTUALIZED GRAMMATICALITY JUDGEMENT TASK

BÖLÜM II
Aşağıda *italikle* yazılmış durumları dikkatlice okuyunuz ve her bir durumun altında duruma ilişkin verilmiş tümcelerde, tümce yapısında bozukluk olup olmadığını **Uygun** ya da **Uygun Değil** seçeneklerinden birini işaretleyerek belirleyiniz. **Uygun değil** seçeneğini işaretlediğinizde, **'Tümce'** ibaresinin yanındaki her bir tümceyi düzeltiniz.

Read each of the contexts written in *italics* carefully and determine whether the sentences following each context are anomalous or not, by marking either of the two options, **Felicitous** or **Not Felicitous**. If you mark **the latter option**, correct each sentence next to the expression **'Tümce'**.

1. *Geçen sene kız kardeşim dilbilimde doktora yapmak için yurtdışına gitti. Ben ve ailem onun için çok mutlu olduk ama onunla çok az konuşabiliyoruz. Çünkü sürekli ders çalışıyor.*
Last year my sister went abroad to do a PhD in linguistics. My family and I were very happy for her but we can barely talk to her. Because she is always studying.

Tümce: Kız kardeşim bir süredir yurtdışında ve sürekli ders çalışıyor.
a) Uygun b) Uygun Değil

2. *Yurtdışı gezisi için arkadaşlarımla havaalanında saat 2'de buluşmaya karar verdik. Onlar tam 2'de gelmişti. Ancak ben trafikten dolayı havaalanına 2.30'da gidebildim ve uçağı son anda yakaladım.*
For an overseas trip my friends and I decided to meet at the airport at 2 o'clock. They arrived at 2 o'clock sharp. However, because of the traffic congestion I was able to get to the airport at 2.30 and I barely caught the flight.

Tümce: Ben havaalanına çok geç gitmeme rağmen ben uçağı yakalamayı başardım.
a) Uygun b) Uygun Değil

3. *Dün arkadaşlarımla sinemaya gittik. Ben aksiyon filmlerinden hoşlandığım için arkadaşlarıma aksiyon filmine gidelim mi diye sordum. Ancak onlar komedi filmine gitmeyi tercih ettiler.*
Yesterday, my friends and I went to the cinema. As I like action movies I asked my friends to watch an action movie. However, they preferred to watch a movie based on comics.

Tümce: Ben aksiyon filmine gidelim mi diye sordum ama onlar komedi filmine gitmeyi tercih ettiler.
a) Uygun b) Uygun Değil

4. *Ahmet ile ben her zaman Ali'nin ödevlerini yapmasına yardımcı oluruz. Dün Ali yine bizden yardım istedi ancak Ahmet Ali'ye çok işi olduğunu söyledi. Bu yüzden de Ahmet benden yardım istedi.*
Ahmet and I always help Ali to do his homework. Yesterday, Ali asked us for help again but Ahmet told Ali that he had lots of things to do. Therefore, Ahmet asked for my help.

Tümce: Ahmet'in işi olduğu için yapmamı istiyor.
a) Uygun b) Uygun Değil

5. *Bu yaz arkadaşlarımla birlikte Antalya'daki yaz kampına gitmeyi çok istediğimi aileme söyledim. Ailem de yurtdışı tatiline benimle birlikte gitmek istediklerini söyledi. Sonunda onları ikna etmeyi başardım.*
I told my parents that I was longing to go to a summer camp in Antalya with my friends. But my family told me that they wanted to go on holiday abroad with me. At last I was able to convince them.

Tümce: Onlar tatile yurtdışına gidecekler ben de arkadaşlarımla Antalya'daki yaz kampına gideceğim.
a) Uygun b) Uygun Değil

6. *Sınavlara çok çalışmama rağmen ben hep düşük not alıyorum. Geçen hafta, Ebru, Kayhan ve ben Tarih sınavına kütüphanede beraber çalıştık. Ancak ben yine onlardan çok düşük not aldım.*
I always get low marks even though I study a lot for the exams. Last week, Ebru, Kayhan, and I studied for the History exam together in the library. Still, I got much lower mark than them.

Tümce: Ben sınavdan çok düşük not aldım ama daha yüksek not aldılar.
a) Uygun b) Uygun Değil

7. *En iyi arkadaşım Kayhan bu sene İstanbul'a taşındı. Geçen gün beni arayıp onu ziyaret etmemi istedi ancak ben de şu sıralar çok yoğunum. Onu arayıp yazın gelebileceğimi söyledim.*
My best friend Kayhan has moved to İstanbul this year. He called me the other day and asked me to visit him but I'm quite busy nowadays. I called him and say that I would be able to get there in summer.

Tümce: Benim şu an gelemeyeceğimi ve benim onu yazın ziyaret edebileceğimi söyledim.
a) Uygun b) Uygun Değil

8. *Yarınki mezuniyet balosu şehrin dışındaki otelde yapılacak. Özge, Ali'nin arabasının bozulduğunu bilmediği için, Ali'nin onu yol üzerinden almasını istedi. Ali ise durumu açıklayıp taksiye bineceğini söyledi.*
Tomorrow's graduation ball is going to be held in the hotel, out of town. Since Özge did not know that Ali's car broke down she asked Ali to pick her up on his way to the hotel. Ali, on the other hand, explained the situation and said he would get on a taxi.

Tümce: Ali arabasının bozulduğunu ve bu yüzden de taksiye bineceğini söyledi.
a) Uygun b) Uygun Değil

9. *Geçen hafta Ebru ile akşam yemeği yemek için restorana gittim. Ebru peynirli pizza sipariş etti ve benim de denememi önerdi ama ben her zamanki gibi salata yemeye karar verdim.*

Last week, Ebru and I went to a restaurant for dinner. Ebru ordered cheese pizza and recommended me to try it but I decided to eat salad as usual.
Tümce: O pizza yedi ancak ben salata yedim.
a) Uygun b) Uygun Değil

10. *Bu yaz Cem ile Elif İngiltere'ye gitmeye karar verdi. Cem'in aksine Elif daha önce İngiltere'ye hiç gitmediği için çok heyecanlı ve Cem'e sürekli yanında ne götürmesi gerektiğini soruyor.*
Cem and Elif have decided to go to the UK this summer. Unlike Cem, as she has never been to the UK before Elif is very excited and she keeps asking Cem what to bring with her.

Tümce: Cem daha önce İngiltere'ye gitti ama oraya hiç gitmedi.
a) Uygun b) Uygun Değil

11. *Dün en iyi arkadaşlarım Mert ile Yiğit'i akşam yemeği için eve davet ettim. Daha sonra hazırlık yapmak için alışverişe çıktım. Ben alışverişteyken Mert aradı ve yorgun olduğu için gelemeyeceğini söyledi.*
Yesterday, I invited my best friends Mert and Yiğit to my house for dinner. Afterwards, I went shopping for preparation. While I was out shopping Mert called me and told me that he wouldn't be able to come here since he was tired.

Tümce: Mert yorgun olduğunu ve gelemeyeceğini söyledi.
a) Uygun b) Uygun Değil

12. *Kemal yeni girdiği işte çok uzun saatlere kadar çalıştığı için mutsuz ve çok az para kazanıyor. Arkadaşları her Cuma onu dışarıya davet ediyor ancak o gitmek istemiyor.*
Because he works long hours at his new job Kemal is unhappy and he does not earn very much money. His friends invite him out every Friday but he does not want to go out.

Tümce: Kemal çok para kazanmıyor ve o arkadaşlarıyla dışarı çıkmak istemiyor.
a) Uygun b) Uygun Değil

3.THE QUESTION-ANSWER TASK

BÖLÜM III

A

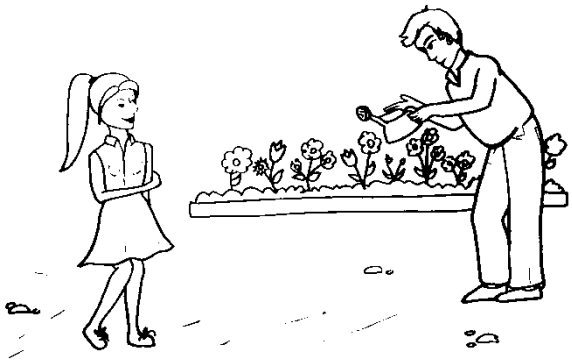
Resim ile betimlenmiş sorulara verilen cevapları okuyarak, cevapların sorulara uygun olup olmadığını, **Uygun** ya da **Uygun Değil** seçeneklerinden birini işaretleyerek belirleyiniz. **Uygun Değil** seçeneğini işaretlediğinizde, lütfen cevabı düzeltiniz.

By reading the answers to the illustrated questions, determine whether the answers are relevant to the questions or not by marking either of the two options, **Felicitous** or **Not Felicitous**. If you mark **the latter option**, correct the answer.

1. **Soru:** Ayşe kimin çiçekleri suladığını gördü?

   Cevap: Ayşe suladığını gördü.

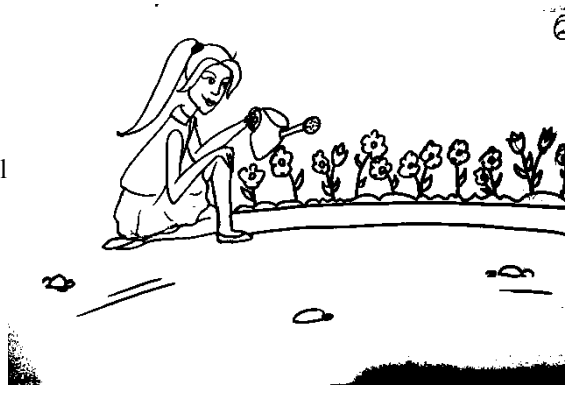
   a) Uygun b) Uygun Değil



2. **Soru:** Ayşe bahçede ne yaptığını söyledi?

   Cevap: Çiçek suladığını söyledi.

   a) Uygun b) Uygun Değil



3. **Soru:** Sinem ne yaptığını söyledi?

   Cevap: Onun alışveriş yaptığını söyledi.

   a) Uygun b) Uygun Değil

4. **Soru:** Sinem kimin alışveriş yaptığını gördü?

Cevap: Onun alışveriş yaptığını gördü.

a) Uygun b) Uygun Değil

5. **Soru:** Ali kimin fotoğraf çektiğini gördü?

Cevap: Ali fotoğraf çektiğini gördü.

a) Uygun b) Uygun Değil

6. **Soru:** Ali arkadaşlarına ne yaptığını anlattı?

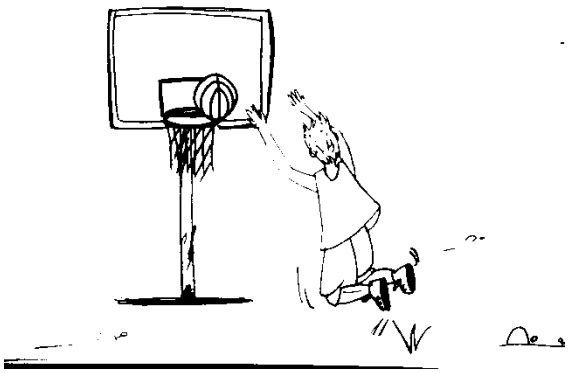
Cevap: Fotoğraf çektiğini anlattı.

a) Uygun b) Uygun Değil

7. **Soru:** Emre ne yaptığını söyledi?

Cevap: Onun basketbol oynadığını söyledi.

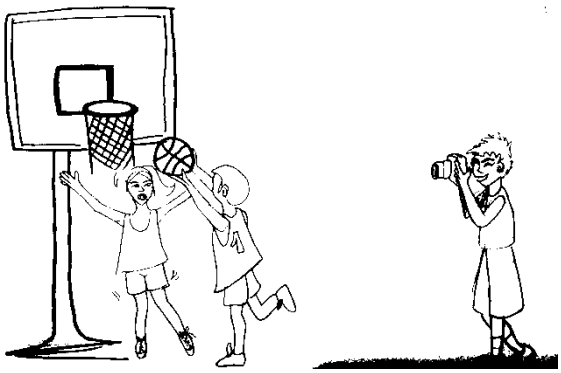
a) Uygun b) Uygun Değil



8. **Soru:** Emre kimlerin spor yaptığını görüntüledi?

Cevap: Onların spor yaptıklarını görüntüledi.

a) Uygun b) Uygun Değil



B

Sorulan sorulara verilen cevabı değerlendirerek, **Uygun** ya da **Uygun değil** seçeneklerinden birini seçiniz. **Uygun olmadığını** düşündüğünüz cevabı lütfen düzeltin.

Determine whether the answers to the questions are relevant or not by marking either of the two options, **Felicitous** or **Not Felicitous**. If you mark **the latter option**, correct the answer.

1. **Soru:** Cem kime sinirlendi?

Cevap: Ona sinirlendi.

a) Uygun b) Uygun Değil

2. **Soru:** Alışverişe kim gidecek?

Cevap: Ben gideceğim.

a) Uygun b) Uygun Değil

3. **Soru:** Cemi kim sinirlendirdi?

Cevap: Sinirlendirdim.

a) Uygun b) Uygun Değil

4. **Soru:** Hediyeyi kime alıyor?

Cevap: O kız arkadaşına alıyor.

a) Uygun b) Uygun Değil

5. **Soru:** Kitabı kime verdin?

Cevap: Ayşe'ye verdim.

a) Uygun b) Uygun Değil

6. **Soru:** Ali'yi kim seviyor?

Cevap: Seviyor.

a) Uygun b) Uygun Değil

7. **Soru:** Kitabı kim okudu?

Cevap: O okudu.

a) Uygun b) Uygun Değil

8. **Soru:** Ne yapıyorsun?

Cevap: Ben ders çalışıyorum.

a) Uygun b) Uygun Değil